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3 October 2013

The Planning Assessment Commission
GPO Box 3415
SYDNEY NSW 2001

By e-mail and express post: Megan.Webb@planning.nsw.gov.au

Attention: Gabrielle Kibble

Dear Commission Members,

Re: Coolmore Australia – Submission to PAC re Drayton South

This submission is made on behalf of Coolmore Australia ("**Coolmore**") in relation to major project application 11_0062 lodged by Anglo American Metallurgical Coal Pty Ltd ("**Anglo**") in respect of the Drayton South Coal Project ("**Project**").

The Project Application is described primarily in the *Drayton South Coal Project: Environmental Assessment* prepared by Hansen Bailey, dated November 2012 ("**EA**"); the *Drayton South Coal Project: Response to Submissions* prepared by Hansen Bailey, dated May 2013 ("**RTS**"); and the *Drayton South Coal Project: Preferred Project Report* prepared by Hansen Bailey, dated August 2013 ("**PPR**").

Coolmore welcomes the opportunity to make the following submission.

Executive Summary

1.1. Coolmore is not completely opposed to coal mining in the Hunter Valley, however, Coolmore is fundamentally opposed to the Drayton South Project because of the risks posed to our business as outlined.

Coolmore considers that the proximity of a large section of the Project is too close to Coolmore to constitute a suitable site for mining and therefore does not satisfy the DGRs.

Should project approval be granted, Coolmore considers that at the very minimum, the mine should remain behind existing natural ridgelines i.e. the Houston Pit should be excluded and the Whynot Pit should be reduced such that it does not breach the natural ridgeline to the South.

1.2. Coolmore's panel of respected experts are of the opinion that Anglo has undertaken inadequate assessments of the issues required to be addressed in its Environmental Assessment Report and subsequent reports.

Our experts note that it is difficult to accept that the predicted results of studies put forward by Anglo's consultants (in relation to water, air quality, visual impacts, noise and light, to name but a few), are credible when there has been an inadequate and incomplete examination of those issues.

1.3. Coolmore reiterates the matters raised previously in its submission to the EA report and refers the PAC to those submissions, which are not repeated here, though they remain unaddressed.

1.4. This submission seeks to respond specifically to issues raised in the RTS and the PPR by Anglo, rather than repeat the earlier submissions by Coolmore.

DISCUSSION

1. Engagement with Anglo

Coolmore has always agreed to meet with Anglo when requested, including facilitating meetings between our technical experts and the Anglo Drayton South project team.

We wish to convey that this engagement and consultation process has been unsatisfactory. Three major examples include:

1.1 A refusal by Anglo, on 26 September 2013, to provide any technical detail in respect of the Option 4a visual bund as outlined in the PPR, without Coolmore signing a confidentiality agreement which would prevent Coolmore from commenting further on that technical detail.

1.2 Anglo's reference in the PPR to the "*Coolmore Option 4a visual bund*" is a misrepresentation of the facts.

Whilst Anglo may have designed the Option 4a visual bund with Coolmore's public submission in mind, our technical experts were not involved in the design, elaboration or development of the Option 4a visual bund.

To imply that Coolmore has been involved with or approved the Option 4a visual bund is inaccurate. Indeed, Coolmore was not aware of any of the design details of the Option 4a visual bund until the PPR was publicly exhibited.

1.3 Submission of the *Drayton South Coal Project: Preliminary Environmental Assessment* prepared by Hansen Bailey and dated March 2011 ("**PEA**") without any prior notice to Coolmore, despite an undertaking by Anglo to provide Coolmore with an opportunity to comment on the PEA and provide feedback to Anglo prior to its submission.

The document (81 pages) was received by Coolmore at 9.59pm on Friday 25th February 2011. It was submitted by Anglo on 4 March 2011, without prior notice to Coolmore.

The inadequacy of Anglo's consultation with Coolmore was also addressed in our submission of 18 January 2013.

Furthermore, we refer to a speech made by Chief Executive of Anglo American plc, Mr Mark Cutifani at the Minerals Council of Australia in Canberra on 26 June 2013. In reports on the speech, Mr Cutifani made the following comments to the *Newcastle Herald* which we believe show a disrespect and contempt for our business, and a misunderstanding at the highest levels within Anglo of the consequences of the Project for Coolmore:

> *"What we are talking about is the visual impact [of the mine] on horses... I'm flabbergasted" Newcastle Herald* 27 June 2013. See Appendix 1.

Anglo maintains that the only impact for Coolmore is visual. This is not the case, which is clearly detailed in our submission of 18 January 2013 - a 23 page document which detailed concerns regarding ground water, surface water, noise, blasting and vibration, dust and equine health, agricultural and economic impacts in addition to visual.

2. Expert Review of the Project prepared by Runge Pincock Minarco ("RPM"), dated July 2013

We note that although:

(a) the Terms of Reference of the Planning Assessment Commission ("PAC") specifically request the PAC to "*assess the potential impacts of the project on the operations of the Coolmore and Woodlands horse studs*"; and

(b) the Scope of Work provided to RPM by the NSW Department of Planning and Infrastructure included consideration of the "*Impacts on Horse Studs*",

RPM did not visit the Coolmore property or consult or engage with anyone from Coolmore. The RPM report indicates that RPM did not appoint any specialist sub-consultants, in areas such as hydrology, visual impacts and rehabilitation in respect of the issues examined. Accordingly, we consider that RPM could not have satisfactorily fulfilled their Scope of Work in this regard.

Furthermore, the RPM Expert Review of the Project considered the Option 4 visual bund, not the Option 4a visual bund as outlined in the PPR. Accordingly, we consider that the RPM Expert Review of the Project is insufficient and incomplete in this regard.

3. Proximity to Existing Mines

Coolmore is not completely opposed to coal mining in the Hunter Valley, however we contend that open cut coal mining should not be undertaken in close proximity to thoroughbred breeding operations.

Anglo contends in their RTS (on page 15) that Coolmore operates "in close proximity to and surrounded by intense active coal mining and power generation".

The facts are as follows:

(a) Hunter Valley Operations, the closest operating mine to Coolmore, is located approximately 9km from Coolmore's main entrance and approximately 5km from our closest land boundary; and

(b) Bayswater Power Station is located approximately 11km from Coolmore's main entrance.

In contrast, the closest points of the proposed Drayton South coal mine will be:

(c) 403 metres from Coolmore's boundary;

(d) 1.4km from Coolmore's main entrance; and

(e) 1.6km from Coolmore owned employee residences - residences housing families with young children. Please refer to the illustrative map attached at Appendix 2.

Clearly, the difference in proximity between Coolmore and existing coal mining and power generation activities in contrast to the proximity of the proposed Drayton South coal mine is substantial. We reject the suggestion that Coolmore currently operates in close proximity to mining or power generation activities.

The proposed Drayton South coal mine is the first mining development to which Coolmore has objected as distances from existing operating coal mines, whilst not ideal, are manageable. However, the proximity of the proposed Drayton South coal mine is not acceptable or appropriate.

Whilst Coolmore is fundamentally opposed to the Drayton South coal project, should the project proceed, Coolmore considers that at the very minimum, the mine should remain behind existing natural ridgelines i.e. the Houston Pit should be excluded and the Whynot Pit should be reduced such that it does not breach the natural ridgeline to the south.

3.1. Mine Creep in the Hunter Valley

Coolmore acquired its current property (previously known as Arrowfield Stud) in 1991. At that time, the closest mines in proximity to Coolmore were Bayswater No 3 Mine and the original Drayton mine approximately 9 km to the north and the Lemington and United Mines far distant to the east.

The Drayton South exploration licence (then called Saddlers Creek) was in existence and held by Shell. Coolmore understood that the coal resources at Drayton South were uneconomic and would not be developed. Coolmore acquired the property with the legitimate expectation of operating our business here for generations.

Please refer to the satellite image from March 1991 (attached at Appendix 3) which illustrates the locations of operating mines relative to Coolmore at that time.

Please also refer to the satellite images (attached at Appendices 4A - 4G) from August 1994, June 1997, September 2000, July 2003, May 2006, July 2009 and September 2013 which clearly illustrate the proliferation of coal mining in the Muswellbrook area during that time.

3.2. Edinglassie Stud

The RTS (Section 4.16.3, page 211) refers to Edinglassie Stud, a property owned by BHP Billiton Mt Arthur Coal and leased to Mick Talty.

Edinglassie is a markedly different business to that of Coolmore, in scale and in scope:

(a) Edinglassie provides accommodation for approximately 50 mares, compared to approximately 600 mares resident at Coolmore – in addition to foals, yearlings and stallions.

(b) Edinglassie does not stand stallions, and is therefore not competing for the same client base as Coolmore which has to offer the highest international environmental and horse care standards.

(c) Edinglassie has a small number of people living on the farm - approximately five compared to 90 at Coolmore.

Of the 11 successful horses bred at Edinglassie and referenced in the RTS, only one was born in the past eight years, as illustrated below. It is worth noting the proliferation of coal mining in close proximity to Edinglassie since 2003. Please refer to the satellite images attached at Appendix 4.

The horses referenced are:

1. Suntain: born 1990
2. Sharscay: born 1991
3. Miss Margaret: born 1992
4. Emerald Dream: born 1996
5. Lasserfaire: born 1996
6. Bentley Biscuit: born 2001
7. Gods Own: born 2002
8. Nadeem: born 2003
9. Wonderful World: born 2003
10. Tell A Tale: born 2005
11. Nechita: born 2009

Notwithstanding the comments made in the RTS regarding the environment for horses and humans at Edinglassie, Coolmore is aware:

- that horses new to Edinglassie become very stressed and frightened during mine blasting. The horse population at Coolmore is highly mobile, both in terms of visiting mares, resident foals, weanlings, yearlings and mares which are continually rotated around the farm through the paddocks.

- of the experience of former Edinglassie employees regarding major nuisance caused by dust and noise having adverse effects on both the staff and the bloodstock.

Based on Coolmore's long heritage in the highest standards of bloodstock management internationally, these are not conditions under which Coolmore would be prepared to operate, nor could we tolerate our employees and their families, including 30 children, living in such an environment.

The Edinglassie example used by Anglo only adds to our concerns about the impacts of the Proposed Project on our farm and on our families.

4. Coolmore's Contribution to the Australian Thoroughbred Breeding Industry

Despite years of consultation, Anglo displays no understanding of the thoroughbred business, as displayed by the following comment (page 9 of the RTS) that:

> *Coolmore Australia and Darley Australia are leading participants in the thoroughbred horse breeding industry and whilst important to it, constitutes (*sic*) a small proportion of it*

Anglo further states on page 15 of the RTS that:

> *The proportionality of the contribution of these two prestigious horse studs to the thoroughbred horse breeding industry of Australia is indicated by the proportion of their offering at the industry pinnacle blood horse sales. Coolmore Australia offered 37 broodmares and 17 yearlings of a total 577 and 569, respectfully (*sic*), at the 2013 William Inglis & Sons Sydney Easter yearling sale and 46 of a total of 972 at the 2012 Gold Coast Magic Millions sales.*

This shows a grave and fundamental misunderstanding of Coolmore's business.

Coolmore stands stallions, to whom breeders bring their mares. 75% of the mares covered by Coolmore stallions are not full-time residents of the Coolmore property. Some thoroughbred breeders may keep their foals to race, but most breeders sell their foals as yearlings at the bloodstock sales. These yearlings can be consigned to a bloodstock sale by any number of organisations who simply act as agents for the owner.

The number of horses consigned by Coolmore is completely irrelevant.

The correct metric is how many yearlings sired by stallions standing at Coolmore are offered for sale, and their quality, as signified by values attained by their breeders.

Coolmore generates value for Australian breeders by providing access to top class stallions. The prices achieved for stallion's progeny at the yearling sales is an important factor in setting nomination fees.

4.1. Number of Yearlings Sired by Coolmore Stallions

To correctly understand Coolmore's proportion of and contribution to the thoroughbred breeding industry in Australia, the important figure is how many of the yearlings at the Premier Session of the Inglis Easter Sale – the premier bloodstock sale in Australasia - were sired by Coolmore stallions:

- Of the 569 yearlings catalogued,[1] 20.9% (119) of the yearlings were sired by Coolmore stallions.
- Coolmore sires were the first and second highest most represented at the sale.
- Darley also had a very significant presence with 117 yearlings catalogued by Darley sires – or 20.6%.

This shows the importance of Coolmore (and Darley) in terms of absolute numbers, but more significant in terms of importance to the industry is the question of quality as indicated by prices achieved for the yearlings.

4.2. Quality of Yearlings Sired By Coolmore Stallions

Tony Arrold, Bloodstock Correspondent of *The Australian* has studied the impact of Coolmore bloodlines on the Australian racehorse industry. He states:

> "The role of Ireland's Coolmore Stud in [Australia's] transition from a backwater business to a world spot of prominence cannot be understated.
>
> Coolmore was in the front rank of Australia's industry masterclass from the very start and is today an industry leader and a continuing trendsetter, having had the faith in the country's future of breeding to invest substantial millions of dollars to establish an Australian base in the New South Wales' prime thoroughbred belt, the Hunter Valley, to mirror its world renowned operations in Ireland and in the US.
>
> The biggest single factor advancing Australia to the top echelon of the world's racing nations was the pioneering in the late 1970s by the then fledgling Coolmore Stud of the phenomenon which became known as the 'Stallion Shuttle Down Under'.
>
> Broodmare owners in Australia suddenly had before them a wide selection of hitherto inaccessible stallions – winners of the English Derby, the Prix de l'Arc de Triomphe and the Kentucky Derby and a host of other major race winners.
>
> The impact of the Australian-bred sprinter abroad in the new millennium has been staggering. Nominate England's top sprint races of today – the Diamond Jubilee Stakes and King's Stand Stakes at Royal Ascot, Newmarket's July Cup or York's Nunthorpe Stakes – and, sure enough, you will find an Australian name on the honour roll in the past decade.

[1] The 2013 Inglis Premier Session of the Easter Yearling Sale consisted of 422 catalogued lots. The 569 lots offered referred to by Anglo includes a second, Tier 2 session.

Staggering, too, is the influence of Coolmore stallions among the 10 Australian-bred winners: nine are sons and daughters or grandsons and grand-daughters of Coolmore shuttle stallions.

Though the Australian Racing Board documents 765 stallions based in the six Australian States and two Territories, the commercial fact is that the Stud Book lists just 84 stallions standing in 2013 at a fee from $5000 and upwards. All 12 Coolmore stallions serving in 2013 are in this group.

Introduced to Australia on a $27,500 fee, Danehill became the most successful stallion ever in Australia. When his last 26 foals went to the Easter sale in 2004, they returned an average price of $600,000 – the other 342 sold at that sale averaged $175,080. The Australian Stud Book lists 56 sire sons of Danehill active for the 2013 spring season.

In 2008, the peak of the market, breeders to Coolmore stallions sold 165 yearlings for an aggregate $52.6 million – just over one-third of the gross 495 lots and an average of $318,851.

The 2013 Sydney Easter Sale was its second best on record to 2008, with 291 lots[2] selling for $84.53m at an average of $290,481 and with the highlight a stamp of approval from an international buying bench which spent $37.5m, or 44% of the gross.

The 291 sellers were representative of 50 stallions, seven of which have Coolmore's Hunter Valley property as their residence and these seven had 78 yearlings sell for $29.43m, or a monster 35% slice of total sales, and a spectacular average of $372,594 – Coolmore stallions average was 28% higher than the Premier Session total average.

Access to Coolmore's bloodlines has dramatically improved the genetics throughout the Australian industry and the earnings of Australian breeders including to export markets".

4.3 Connectivity to Scone Critical Industry Cluster (Equine)

The Hunter Valley produces one in two of the thoroughbred foals born in Australia, which has the second largest thoroughbred population in the world, behind the USA. The Hunter Valley accounts for 74 per cent of national value of stallion fees in Australia. This makes the Hunter Valley a unique economic eco-system.

Of the 69 key breeding enterprises in the Hunter Valley, 48 or 69.5% of them send mares to Coolmore sires. Coolmore's facility is intimately interwoven and connected with the

[2] This refers to lots sold in the Premier Session, of which 422 were catalogued.

Hunter Valley thoroughbred industry and indeed these businesses rely on access to Coolmore bloodlines reinforcing Coolmore's importance to the Critical Industry Cluster in the Hunter Valley. Please refer to the Map illustrating Upper Hunter Thoroughbred Breeding Operations with Direct Connections to Coolmore in Appendix 5.

Scone Equine Hospital is the surgical reference centre for Coolmore, a critical support for urgent surgery such as Caesarian sections, colic and intensive neonatal care for foals.

The most important and urgent cases are difficult foalings, where minutes matter to save both the mare and foal. The mother of Champion Sire Fastnet Rock, Piccadilly Circus, has had two emergency Caesarian sections and would have died if the Scone Equine Hospital had been further away in terms of time to access.

Colic is the leading cause of premature death in horses and the general incidence is 10-11%. In an extreme case, a horse can die of colic within an hour. Coolmore's policy and practice is that a horse float is always available on the farm in case a stallion becomes ill and needs to be transported to Scone Equine Hospital. Where these animals can be worth tens of millions of dollars, fast and easy access to the expertise and facilities at Scone is crucial.

4.4 Conclusion

The above facts speak for themselves and highlight the importance of Coolmore to the Australian thoroughbred breeding industry and the importance of Coolmore's contribution to the industry to date.

Furthermore, the above facts highlight that Anglo displays no understanding of the thoroughbred business, despite years of consultation.

5. Significant Threats to Coolmore

Anglo submits that the only impacts of the Project on Coolmore are visual. This is not true.

5.1. Unique Characteristics of the Coolmore Property

Faced with the encroaching mines, Coolmore has looked at a number of other properties in New South Wales over the past years. It has not been possible to find any land that offers the same and necessary characteristics as its current property, which are:

- Scale – business growth is already constrained by land availability
- Clean air
- Clean water
- Proximity to an existing equine cluster

- Undulating topography allowing for muscle and bone development in young stock
- Calm environment free of nuisance
- Four soil types including rich alluvial flats allowing pasture management appropriate to stock of different ages and needs

Ross Watson, one of the leading pasture agronomists in Australia describes

> the prime agricultural areas on Coolmore are certainly some of the best quality soils in Australia and certainly within the Hunter Valley

He further states that

> These soils, due to their alluvial development, have uniquely high levels of major and minor soil nutrients.....The high nutrient and mineral content of the pastures on these soils contributes to healthy and well grown thoroughbred horses
>
> These improved pastures are amongst some of the highest quality pastures in Australia.

A detailed letter from Ross Watson noting the unique characteristics of the Coolmore property is attached at Appendix 6.

In 2002, Coolmore purchased an adjoining dairy farm, Ellerslie, which now forms part of our property. Although the land shares the same physical advantages and characteristics of Coolmore's original property, it took eight years of pasture management and investment in fencing and facilities to fully integrate Ellerslie with the existing Coolmore property, to the point where it has attained Coolmore standards and can only now accommodate a foaling unit.

In this regard, it is clear that the environment at the Coolmore property - on it, surrounding it, underlying it and above it - is critical to the thoroughbred breeding success that the Coolmore property has enjoyed since the early 1900s.

5.2. Water

Coolmore relies heavily on ground and surface water sources in the Hunter Valley and has approximately 5,000 megalitres of water licence available to ensure lush paddocks of feed on the alluvial river flats are available for pregnant mares in their final stages of pregnancy - the stage when foetal development is greatest.

Three of Coolmore's river pumps are located down-stream of the proposed discharge pipe from the Project. These pumps are used to pump the river water for paddock irrigation, stock and domestic water purposes.

Anglo (Drayton), Bengalla and BHP (Mt Arthur) have reported significant breaches of the conditions of their mining consents in almost all of their 10 annual returns between 2001 and 2011, including in the cases of Bengalla and Wambo, specific instances of discharge of saline mine water into the Hunter River at salinity levels in excess of acceptable levels and in direct contravention of the rules of the Hunter Valley River Salinity Trading Scheme.
Hydrologist Owen Droop states:

> *It is this inherent inability to ensure control of all aspects of mine water management over the full period of operation that causes the greatest concern for Coolmore's business. An instance of unlicensed discharge such as those seen in the past is in all probability a* fait accompli *over the some 27 years of planned operations and is likely seen by the mine as a minor incident in that it is over quickly. However, a single instance of such poor quality water being inadvertently applied to high quality land would have immediate and long-lasting impacts on Coolmore's operations. Once applied to the soils, the salts (and other contaminants) contained in such unlicensed discharge are not easily removed.*

Coolmore is extremely concerned by the potential cumulative impacts on groundwater of the existing mines together with the proposed Drayton South coal project, in particular, given the concerns of Gilbert & Sutherland (detailed in Section 5.2.1 below). The NSW Department of Primary Industries has published a paper[3] which details the impacts of increased salinity in irrigation areas, which include:

- Poor plant health, loss of productive species and dominance of salt-tolerant plants
- Reduction in the ability of plants to take-up nutrients
- Leaf burn, necrotic patches and defoliation
- Higher soil salinity makes it more difficult for plants to absorb water by osmosis
- Highly saline soils often become highly sodic, requiring the increased use of calcium carbonate

Clearly, not only is Coolmore concerned about potential increased salinity of the water but also the resulting increased salinity in the soil. Foetal development in pregnant mares is best in pH balanced soils, not soils high in salinity.

Ross Watson describes the alluvial soils on Coolmore as having

> a favourable soil pH of 6.5 - 7 and an excellent balance of exchangeable cations. These soils possess high levels of Calcium and Phosphorus as well as high levels of trace elements, which allow the production of pastures of a highest quality.

The following comments from our experts Gilbert & Sutherland only serve to heighten our concerns regarding the adverse water impacts which may arise if the Project goes ahead.

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[3] Primefact 937, Irrigation Salinity – Causes and impacts (October 2009)

5.2.1. Gilbert & Sutherland Review of Water Impacts

Gilbert & Sutherland (G&S) note that the studies undertaken in support of the Project, specifically those related to surface and groundwater, contain significant omissions, inconsistencies and analysis that appears favourable to the proposal. Their report is attached at Appendix 7.

The additional information presented in the RTS and in the PPR has not altered their views. Indeed, G&S submit that the changes in final landform, in particular, the lifting of the floor of the final void above the local watercourses and its consequent increased risk of hypersaline water is a significant issue and has not been adequately addressed.

Accordingly, G&S have raised significant questions regarding the accuracy and representativeness of the studies undertaken on behalf of Anglo.

5.3. Dust

Air quality is a key concern for Coolmore Australia – for the community of people and families who reside on the farm, the bloodstock investors and owners who frequently visit the farm and for the health of our valuable bloodstock. We draw attention to the submission on the Drayton South Proposed Project of Professor David Durrheim, Service Director, Health Protection, Hunter New England Population Health – NSW Government:

> *it is unlikely that current air quality goals will be acceptable 27 years into the future of the project.*

5.3.1 Human Impact

There are 34 freestanding residential houses and 17 residential units for staff and guest accommodation in two freestanding houses at Coolmore. There is a year round population of 60 adults and 30 children. Please refer to the illustrative map attached at Appendix 2.

The proposed Project will be just 1.6 km from our main area of family accommodation, where five homes adjoin the Arrowfield property.

Anglo lodged an objection to a proposed development at Arrowfield winery, dated 29 August 2012. On page 4, section 5.4 they state:

> *The [Drayton South] EA identifies that for a period of between 10-15 years the annual average PM_{10} air quality concentrations may, over a material area of the Proposed Development [Arrowfield], exceed the Environment Protection Authority air quality assessment criteria of 30 $\mu g/m^3$ by in the order of 20% and up to 36 $\mu g/m^3$ (as indicated on Figure 39 of the EA)*

5.3.2 Equine Impact

We recognize that there are few scientific studies available on air quality, pollution, dust and the breeding of thoroughbred horses. This situation arises and is unlikely to change because no-one is prepared to risk a valuable asset – a racehorse – by deliberating exposing them to pollutants to assess impact on performance in a controlled experiment. The absence of evidence is not evidence of absence of risk.

5.4. Noise

We draw attention to the report of Dr Andrew Paxton-Hall, BVSC of Tamborine Mountain Veterinary Surgery, Queensland.

> *Horses are by nature potentially flighty animals that can be unpredictable and can react to noises and other external stimuli very quickly with sometimes disastrous consequences for themselves and human handlers. It is noted that long term resident equines in some situations can become desensitized to loud noises that are constant or repetitive. The equine breeding properties surrounding this potential mine have a fluid horse population depending on the time of year. That is, animals come and go on a regular basis so there would be many instances of blasting and other noises being a novel sound for a particular animal that could potential distress an animal to cause self harm.*

Coolmore believes that blasting would be particularly risky for yearlings. It is also risky during foaling season which lasts from mid-July to end-November.

We also draw attention to the report of Acoustics Engineer Ray Tumney BEng, MEnvStud, MIEAust, MAAS who has made the following observations.

"It is well established both in the literature and from practical experience and observation that animals (and in particular thoroughbred horses) will have the following reactions to sound and vibration:

- For the first few experiences of any sudden or impulsive sound or vibration an animal will react with a normal flight response and the behaviour will be unpredictable depending on the temperament of the individual animal and the circumstances in which it is contained at the time.

- Over time most animals will become habituated to most sound or vibration experiences although ground borne vibration (from Blasting) will take a good deal longer to become habituated to because it represents a greater risk from the animals point of view (it appears to them to be an earthquake and is, therefore, very high risk to them).

- The time an individual animal takes to become habituated to any given stimulus depends on the temperament of the individual animal and its confidence in its surrounds.

Given that Coolmore is a stud operation and regularly has "visiting" animals, the individual response of a new arrival to blast stimulus (ground vibration or airborne sound) will not be known.

The first and most significant risk is the risk of injury to either people or valuable stock. Horses are very powerful and highly-strung animals and the unknown flight response of a "visiting" animal potentially presents a very significant risk of injury for Coolmore employees and the animal itself or other stock nearby.

5.5. Light

Light is used in a very deliberate manner on stud farms.

Coolmore keeps pregnant mares in the foaling unit under lights for observation purposes and mares in whom cycles are being advanced are also exposed to light. The yearlings, foals and pregnant mares for most of their gestation are removed from artificial light.

Dr Paxton-Hall explains that the reproductive cycle of a mare is greatly influenced by the available light to which she is exposed and that this fact is used in several ways to manage breeding on stud farms. Effects of extraneous environmental light on dry and barren mares can cause them to cycle improperly:

> *Uncontrolled light periods of sufficient strength and duration at the beginning and end of the breeding season could have a significant negative effect on breeding operations affecting management and reproductive performance of mares.*

5.6. Visual

The major visual impact issues for Coolmore in relation to the Project are the open cut mining of the Houston Pit and the associated visual bund referred to in the PPR as the Coolmore Option 4a. Another key issue is the potential for substantial visual impacts caused by dust plumes emanating from blasting operations.

The latest option for the visual bund presented by Anglo has been reduced in size due to persistent lobbying from Coolmore over many years, however it still represents a major intrusion into the valley from a range of locations. It will have a high visual impact for longer than the predicted 8 month construction time as it will be at least 18 to 24 months before the trees proposed for the bund will begin to become visible. In the meantime, it will appear like an artificial landform more akin to a dam wall.
This visual impact of both the construction and the final form before trees begin to mature will be visible to Coolmore clients, staff and their families from a wide range of

locations.

We have noted in previous submissions that Anglo have failed to recognise the numerous locations from which the mine will be visible both on Coolmore and the Golden Highway. A Seen Area Analysis or Visual Catchment Map, which has been continuously requested by Coolmore, would clearly demonstrate the extent of the area that will be visually impacted by the bund and some of the more elevated areas of the mine.

The visual impact of dust is only referred to in one paragraph of the RTS where it states;

"Dust generated by the project will primarily be associated with mobile equipment within the active mining areas and exposed OEAs."

No mention is made of the dust plumes that result from blasting which is proposed to occur on average up to 5 times per week. Blasts by the Hunter Valley Operation Mine clearly demonstrate the degree of visual effect caused by the dust plume, even when viewed from Batty Hill which is over 10km away. Blasting in the Redbank Pit would produce dust plumes that are potentially less than 1km away from Coolmore.

We contend that the proposed Project is too close, too large and would produce too much visual impact on the business and on the people who work, live and visit the farm.

5.6.1. Perception

Many businesses in the service sector rely on visual cues to reassure customers, for example banks, legal and accountancy firms. In the case of Coolmore, strict attention to the environment is not only one of perception – though this is also very important. Clients sending valuable mares to Coolmore need to be sure that they are in the safest possible environment, where attention is paid to every detail.

Coolmore has had numerous clients and people in the racing industry express concern at the prospect of an open cut coal mine in close proximity to Coolmore. We draw your attention to letters received from the following clients (which are attached at Appendix 8):

- John Camilleri, MD of Steggles and Director of the Australian Turf Club
- Deborah Kepitis, Ingham Bloodstock
- Tim Stakemire, Racing Manager of His Highness Sheikh Mohammed Bin Khalifa Al Maktoum

The views expressed by the above clients are in stark contrast to the views of Anglo as stated on Page 211 of the PPR:

> *the Project is not anticipated to discourage clientele or the public from investing in or appreciating the quality of the horses produced from the thoroughbred horse breeding enterprises of Coolmore Stud and Woodlands Stud.*

6. Economics

As mentioned earlier in this submission, despite years of consultation, it is clear that Anglo has no understanding of the thoroughbred business, as displayed by their economics contributions comparison between thoroughbred breeding and the Project (pages 209 and 210 of the RTS).

6.1. Economic Contributions Comparison

Coolmore, like the majority of stud farms in Australia, earns its income by standing stallions and providing agistment and other services to mare owners. Coolmore receives a commission from the stallion owners for standing the stallions, which are owned by syndicates.

The economic impact of the Coolmore breeding operation has been shown clearly throughout this Submission, in particular, in Section 4 which discusses Coolmore's contribution to the Australian thoroughbred breeding industry and the value generated to Australian breeders.

6.2. Economic productivity of agricultural land

A report prepared by Marsden Jacob & Associates (which has been submitted by Darley) considered the Opportunity Cost of Land in examining the impact of the Project on Coolmore and Darley. The Opportunity Cost of Land is the difference between the gross margin return between the thoroughbred stud operations and the next best alternative use, which in this case is, premium cattle grazing.

Marsden Jacob & Associates's analysis illustrates that the difference in gross margin returns as follows:

- Thoroughbred Stud Farm: $4,627 per hectacre
- Premium Cattle Grazing: $229 per hectacre

7. Bickham PAC

Anglo refers to "fallacious comments" on page 4 of the detailed summary in their Response to Submission. The Bickham PAC conclusions are quite clear as per this verbatim quote:

> *The available evidence supports the view that open-cut coal mining and a viable international-scale thoroughbred breeding enterprise are incompatible land-uses.*

This reference is a direct quote. It is neither fallacious nor misleading.

* * * * *

We very much appreciate the opportunity to raise these concerns with the Planning Assessment Commission.

Please contact Niall Ronan, Chief Financial Officer of Coolmore if you have any questions regarding the above.

Yours sincerely,

[redacted]

Tom Magnier
Principal