

24 September 2019

Mr Jim Betts
The Secretary
Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Lauren Evans

**Re: SSD-9526 - Malabar Coal: Maxwell Underground Coal Mine Project
Environmental Impact Statement: Submission in Response**

Dear Sir,

This submission is made on behalf of Coolmore Australia (**Coolmore**) in relation to State Significant Development Application SSD-9526 lodged by Maxwell Ventures (Management) Pty Ltd (**Malabar**) in respect of the Maxwell Underground Coal Mine Project (**Project**).

Coolmore welcomes the opportunity to comment on the Environmental Impact Statement (**EIS**) which went on public exhibition on 14 August 2019. Coolmore has made best efforts to understand all potential impacts outlined in the EIS, including engaging a team of technical experts and attending a number of meetings with the proponent. Given the comparatively short exhibition time, and the volume and import of the documents, it has not been possible yet to do so definitively. However, our experts have raised a number of areas of concern relating to impacts and assessment methodology in critical areas including water, subsidence and air quality.

1. Introduction

1.1. Coolmore

Coolmore is the Australian division of the global Coolmore thoroughbred horse breeding and racing operation; one of the world's largest commercial thoroughbred breeding enterprises with stud farms in Australia, Ireland and the USA.

Coolmore was established at Jerry's Plains in 1996. Coolmore directly employs up to 150 people of whom approximately 92 reside on the farm in 60 residences. The majority of these employees have made Jerry's Plains a permanent home for their young families.

Our base consists of approximately 9,000 acres of *strategic agricultural land - equine critical industry cluster*¹. We use this land to breed and rear future thoroughbred racehorses. Some of Australia's greatest ever race horses have been raised and grazed at Jerry's Plains including Fastnet Rock and Winx.

Our business has two principal revenue streams, fees generated by Stallions and Agistment, or horse boarding. Australian breeders send their mares to be covered by our stallions in the hope of breeding the next Winx. Our clients also board their mares on our farm. These mares have foals which are then reared on Coolmore until they become yearlings at which point they are sold or retained to become racehorses. We are in effect custodians of our clients' bloodstock assets. Our reputation as an ideal environment for thoroughbred horse breeding is very important to us and we are highly sensitive to any potential adverse impact upon that environment from heavy industrial activities like mining.

¹ Page 84, NSW Government 'Strategic Regional Land Use Plan-Upper Hunter', September 2012 - <https://www.planning.nsw.gov.au/Policy-and-Legislation/Mining-and-Resources/Critical-Industry-Clusters-in-the-Upper-Hunter>)

Last year 14 stallions standing at Coolmore served over 2,000 mares. The demand from Australian breeders for Coolmore stallions is a result of significant and ongoing investment in infrastructure and in stallions. Our current stallion roster has required major investment by us, our partners and investors. These investments go into the hundreds of millions and represents a vote of confidence both in our farm, our management and in the Australian racing industry. This confidence has underpinned the decision by Coolmore to send two of its prize assets, US triple crown winners American Pharoah and Justify to stand in the Hunter Valley. These horses are household names in America and their arrival in Australia was heralded by the national press as a landmark for the Australian thoroughbred industry². Standing this calibre of international stallion in Australia represents a new era of investment and commitment to Australia by Coolmore and is one that we would not have taken without the certainty afforded by the “Drayton South” decision and subsequent amendment to the State Environmental Planning Policies (Mining, Petroleum, Production and Extractive Industries 2007) ³ **(SEPP)**.

1.2. The Hunter Valley

The Hunter Valley is home to the world’s second largest agglomeration of thoroughbred studs outside of Kentucky in the USA⁴. The stud farms of the Hunter Valley are part of an intertwined economic network recognised by the NSW Government as an Equine Critical Industry Cluster **(CIC)**. The thoroughbred industry in the Hunter Valley not only generates revenues for the locality and the State but also provides sustainable employment and economic diversity to the Hunter Valley. Coolmore and our neighbours Godolphin were

² <https://www.dailytelegraph.com.au/sport/superracing/triple-crown-winners-american-pharoah-justify-settle-in-for-first-australian-breeding-season-at-coolmore/news-story/b63b238759e7a1d17c90a5279e923a17>
<https://www.smh.com.au/sport/racing/american-pharoah-racings-michael-jordan-arrives-in-australia-to-stand-at-stud-20170815-gxwmn8.html>
<https://www.smh.com.au/sport/racing/coolmore-hype-justified-with-triple-crown-winner-joining-ranks-20190403-p51akf.html>
<https://www.theaustralian.com.au/sport/horse-racing/justify-and-pharoah-may-be-australian-bookends/news-story/0ba5450d0f362f76e7334488d8e8fcf0>

³ <https://www.planning.nsw.gov.au/News/2017/No-open-cut-mining-for-Drayton-South>

⁴ https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0003/471027/equine-profile-upper-hunter-region.pdf

described by the 2017 Planning Assessment Commission determination as being both “systemic and central to the development and international success of the Hunter Valley equine critical cluster”.

Further information about Coolmore and its operations can be obtained at <https://coolmore.com/farms/australia>

1.3. Planning Context

In 2012 Anglo American lodged its first planning application, a Part 3a major project application and environmental assessment to develop the Drayton South coal reserve. In December 2013 the PAC recommended that the mine plan proposed should not be approved. The Part 3A application was refused by the PAC in its revised form in October 2014 with the PAC identifying that Coolmore and Godolphin’s “significance to the broader equine Critical Industry Cluster meant they should be afforded total protection from the impacts of mining”⁵.

In August 2015 Anglo American lodged another State Significant Development Application for Drayton South. This was also refused in February 2017 with the PAC stating in its determination report that “a unique set of circumstances does exist due to the proximity between the Project and Coolmore and Godolphin”⁶ and that “The Project has the potential to impact equine health and operations at Coolmore and Godolphin which would damage their reputations and business”⁷.

⁵ Page 3 NSW Planning Assessment Commission Determination Report Drayton South Coal Project (SSD 6875) Feb 2017

⁶ Page 34 NSW Planning Assessment Commission Determination Report Drayton South Coal Project (SSD 6875) Feb 2017

⁷ Page 43 NSW Planning Assessment Commission Determination Report Drayton South Coal Project (SSD 6875) Feb 2017

1.4. Post Drayton South

Since the last development application for an open cut coal mine at Drayton South the following has occurred:

- In October 2016, the Hunter Regional Plan 2036 was issued by the Department of Planning;
- In December 2017, the SEPP was amended to include in Schedule 1 a prohibition on open cut mining within the Drayton South Project area;
- On 26th February 2018, Malabar completed acquisition of 100% of the Drayton Mine assets in NSW;
- On 16 October 2018, the Draft Muswellbrook Local Strategic Planning Statement 2018-2038 was publicly exhibited; and
- On 8 February 2019, the decision of the Chief Justice of the Land and Environment Court in Gloucester Resources Limited v Minister for Planning [2019] NSWLEC 7 (Gloucester Resources) was delivered. The Court's decision considers the requirements of the Mining SEPP and the matters upon which the consent authority must be satisfied before granting development consent to mining development.

1.5. The amendment to the Mining SEPP

Although the amendment to the Mining SEPP, as a result of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) Amendment (Jerry's Plains Prohibition) 2017*, had the effect of prohibiting open cut mining on the Project area, it does not follow that the proposed development for an *underground* coal mine is acceptable. The consent authority must still consider all of the relevant matters which it is

mandated to consider under section 4.15 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. In particular, under section 4.15(1)(a)(i), the consent authority must take into account all the relevant matters required for its consideration in the Mining SEPP.

The EIS states (at page 2-2) that the prohibition against open cut mining within the Project area is as a consequence of the key reasons for the refusal of the previous Part 3A application and SSD development application for an open cut mine, which included noise and dust impacts, both of which would be less for an underground mining operation.

However, the EIS does not state the other key reasons for the refusal of the previous applications. In addition to air quality and noise impacts, the PAC refused the SSD DA in 2017 on the following additional grounds:

- The (then) Project would have unacceptable negative economic and social impacts in the locality; and
- The (then) Project is incompatible with the particular nature, operations and requirements of existing land uses, and the medium to long-term sustainability of the Equine CIC would be detrimentally impacted, with the result that the Project is not in the public interest.

1.6. NSW Government Policy

The NSW Government has acted to assess lands in the State according to their agricultural significance, and according to various CICs. Subjecting mining development applications, whether for underground or open cut coal mines, to the additional scrutiny of the Gateway Panel is an illustration of the objective of the Mining SEPP to protect the presence of the equine industry in regions such as the Upper Hunter.

All of Coolmore Australia's property in the Hunter region has been designated as strategic agricultural land by the NSW Government, and as part of the Equine CIC.

The incompatibility of any proposed State significant mining project with existing land uses is a key consideration under the Mining SEPP. This key issue is unaffected by the fact that the proposed mining proposal is now for an underground coal mine, rather than open cut coal mine.

1.7. State Environmental Planning (Mining, Petroleum and Extractive Industries) Policy 2007

The provisions of the Mining SEPP, as an environmental planning instrument, are a relevant matter to be taken into consideration by the consent authority under section 4.15(1)(a)(i) of the EP&A Act.

Clause 2(d)(iv) of the Mining SEPP places the sustainable growth of agricultural industries on an equal footing with the sustainable growth of the mining industry in establishing a gateway process.

The incompatibility of any proposed State significant mining project, whether underground or open cut, with existing, approved or likely preferred uses is a key consideration for a consent authority under clause 12 of the Mining SEPP.

Clause 12 provides:

“Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must:

(a) consider:

- (i) the existing uses and approved uses of land in the vicinity of the development, and*
- (ii) whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and*
- (iii) any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses.*

(b) evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a) (i) and (ii), and

(c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a) (iii).”

At page A.7.4 the EIS concludes that the Minister or IPC can be satisfied as to the matters required to be considered under clause 12.

In Coolmore’s opinion the EIS’s consideration of clause 12 is inadequate and the Minister or the IPC cannot be satisfied that the Project is compatible with other land uses in the vicinity of the proposed development.

2. Water and Coolmore

The Hunter River runs through Coolmore's farm and along the border of the proposed development. We rely on the Hunter River for stock drinking water and to enable us to irrigate our property using our available water licenses. Irrigation enables grass growth and this grass forms the core part of the diet of horses on the farm. An in-foal (pregnant) mare will typically weigh 480-550 kilograms depending on the phase of their gestation period. These mares typically consume 1% of their body weight per day in grass. If this 5 kg of grass is unavailable it needs to be substituted with processed feed and hay which is increasingly economically prohibitive during the current drought. A diet that does not contain grass also increases the amount of drinking water required by a horse.

The river and our ability to access it is the lifeblood of our farm and is one of several reasons that our operations are not replicable elsewhere. In this time of drought the river's importance is magnified and increasingly it is a competitive advantage. For these reasons we must guard carefully against anything that could possibly impinge upon its proper function. Figures 1 and 2 (next page) strikingly illustrate the difference irrigation makes to pasture in the current climate.



Figure 1: Irrigated land v non-irrigated land. Coolmore Australia (Sept 2019).



Figure 2: Irrigated land v non-irrigated land. Coolmore Australia (Sept 2019).

All forms of mining, whether open cut or underground, can have a deleterious effect on neighbouring water systems.

The Strategic Regional Land Use Plan (**SRLUP**) issued by the Department of Planning NSW in 2012⁸ states that “Mining has the potential to impact on water quality in aquifers and surface water resources. They can also remove water from surface systems and aquifers and can impact water tables and water pressure”⁹. The SRLUP states that agricultural impact statements are to demonstrate that impacts on agricultural land and resources are avoided or minimized to acceptable levels so as to ensure the protection of strategic agricultural land and the water resource on which it relies.¹⁰

We have engaged two separate and independent hydrogeology and hydrology firms to review the EIS, and both have raised significant challenges to the models and methodology adopted by the proponent and identified a need for greater information.

3. EIS Expert Feedback

3.1. Water

Appendix C of the EIS Surface Water Assessment shows a water balance model that was developed between January 2017 and December 2018. This model appears to contain a number of disparities with other areas of the EIS as regards inflows versus the change in total storage water that our experts’ analysis was not able to reconcile.

This raises questions as to any conclusions that are made on the basis of the model. It must also be pointed out that the model was calibrated during a very

⁸ (<https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/strategic-regional-land-use-plan-upper-hunter-2012-09.pdf?la=en>)

⁹ Page 20 SRLUP

¹⁰ Page 23 SRLUP

dry period which must also add to the uncertainty. These factors mean that for a start the risk of a water surplus occurring over the life of the Project has not been adequately assessed.

Malabar's final void management concept comprises leaving the voids open and (accepting their model outcomes) these voids acting as a groundwater sink which will have no outflows. Under their model inflows will be offset by evaporation. The formation of three large saline water bodies situated close to an alluvial aquifer defined by the NSW Government as being "highly productive" is problematic. The storage of water of increasing salinity presents a risk to neighbouring water resources. If these bodies of stored water permeate rock or if there is an overflow amidst rainfall, a significant risk to nearby water resources would be posed. The expert advice we have received at this preliminary stage indicates that these plans should be subjected to a higher standard of scientific rigour given the period of time these bodies of water will exist.

Groundwater modelling indicates a two metre drop in the Hunter River alluvium and a drop of up to eight metres in Saddlers Creek and Saltwater Creek. Drawdowns of this level will have a negative effect on groundwater availability and surface water flows. Amidst the current drought, and future climactic pressures, we would have significant concerns over a scenario whereby the river and its associated aquifers could take longer to recharge.

The EIS contends that there will be "*Minimal impact to bores in 'highly productive' aquifers*". Our expert has questioned the quantification of that impact and the uncertainty posed to this contention and the overall model by subsidence.

In their advice to decision makers on the Maxwell Project, the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (**IESC**) described one of the key potential impacts from the

Project as being “Long term changes which are severe and irreversible to Permian hard rock aquifers and surface watercourses”. They also said that the “inherent uncertainty involved in model conceptualization and parameterization does not warrant the ***unrealistically high confidence*** (*our emphasis*) with which subsidence and groundwater impacts are presented”. They said an assessment that gives “due consideration to the large inherent uncertainties in the potential impacts” and includes “long term case studies” should be carried out. The preliminary expert advice we have received indicates that the threshold has not been met and that there is insufficient basic information to understand potential impacts as well as erroneous use of methodologies and assumptions in the modelling.

3.2. Air Quality

The Air Quality and Greenhouse Gas Assessment concludes there will be no impact on air quality from the Project alone. Our expert in this field has advised us that the cumulative effects of another mine are not being properly taken into account owing to how the contemporaneous assessment has been conducted.

We would also make note that for the first 2 ½ to three years of the mine’s operations, coal will be hauled from the mine entry 24/7 by 40 tonne capacity trucks on a road that for the first year will be unsealed. We had understood that the covered conveyor would operate from the outset so as to minimize dust and emissions on the site. However the delayed construction of the conveyor seems to be more timed to coincide with production volumes rather than any concern about air quality. We would have concerns as to whether the conveyor will be built at all if the mine is initially permitted to begin operations in this manner.

3.3. Noise

Our expert has reviewed the Maxwell project noise report prepared by Wilkinson Murray. The Wilkinson Murray report adopts the background noise levels and project noise limits prepared by Bridges Acoustics. Bridges Acoustics adopt noise limits from DA 231-7-2000 though it is unclear why noise limits pertaining to Dartbrook are appropriate or relevant for the Maxwell project.

The Wilkinson Murray report states that noise levels will exceed the Project noise limits and that there is no evidence of continuous compliance with project noise limits. In the case of Gloucester Resources v Minister for Planning the Chief Justice commented that background noise levels of less than 30 decibels will result in “mine noise levels more noticeable and more likely to likely to impact the residents’ acoustic amenity”. Receivers to the North will experience operational mine noise levels that will be 15-20 decibels higher than the ambient background noise levels to receivers to the north.

The Maxwell project anticipates that blasting may occur in several scenarios throughout the mine’s life. However the noise or blasting impacts on the nearby thoroughbred community do not appear to have been considered or assessed at all. Whilst the charges will be smaller than for an open cut mine, one would have expected to see a more thorough analysis than the reference to “human annoyance criteria” given the well-established sensitivity of the operations here.

3.4. Visual

We acknowledge that this application does not carry the unconscionable weight of visual impacts that previous applications would have engendered. However the visual catchment for Coolmore is highly scenic comprising the Hunter River and the adjoining irrigated floodplain.

This landscape and the stud farm are a visual platform off of which we sell what is in essence a luxury product and experience. The Edderton Road is already subject to visual effects from mining but we would argue that further visual effects at a closer proximity to Coolmore could lead to cumulative visual effects that would detract from the visual amenity along an important thoroughfare for the critical equine cluster. Raw coal stock piles up to 25 metres high, 155 metres long and 140 metres wide, the Mine entry area and the transport corridor are likely to be visible from the Edderton Road even after its potential realignment. We would like to see a Seen Area Analysis Plan to confirm the proponent's assessment of the visual effects from a series of viewpoints.

3.5. Rehabilitation

The analysis we have received thus far indicates that the existing security deposit for rehabilitation is likely to be inadequate. This opinion is rooted in previous estimates that had been attached to previous proposals for the site and the long term responsibilities attached to it. Impacts from subsidence on Malabar land are expected to be significant and render the land there unfit for agricultural pursuit and pasture development for grazing in the short to medium term. The proponent has committed to rehabilitation monitoring for two to five years after mining cessation however subsidence could occur for decades after and more than five years will be required to return the area to an acceptable sustainable post mine landform.

3.6. Transport / Traffic

The Edderton Road is an important route from Coolmore to other stud farms and critically the Scone Equine Clinic, particularly in the event of a stallion colicking and requiring urgent surgery. Colic is the leading cause of premature death in horses. Severe cases demand surgery and without treatment can kill a horse within a few hours. Coolmore manages its transport fleet to ensure there is a horse float available at the farm 24/7, 365 days a year expressly if needed for a stallion or broodmare with colic. The proposed realignment of the

Edderton Road and the potential for further delays or roadworks is a cause for concern.

4. Conclusion

The sensitivity of Coolmore Australia's operations, and its significance to the Equine Critical Industry Cluster has been well-established and formalised through the assessment processes applied to the proposed Drayton South open cut mine, and ultimately through the protective SEPP. We welcome that the Secretary's Environment Assessment Requirements (**SEARs**) issued by the Department recognise this and seek to protect our land, business and reputation, in accordance with the SEPP.

In the interests of our employees, clients and bloodstock, we must take a highly precautionary approach. Coolmore Australia requests that in its review of the application, the Department place particular emphasis on considering the impacts of the proposed Maxwell Project on a worst-case basis rather than normal, stable daily operations. Mines are dynamic environments, and climate change is increasing the volatility of weather events, making them more difficult to predict. Fire, roof collapse, flooding and drought are some of the extreme situations that can, do and will arise over the minimum 26 years of the proposed mine's operation, and notwithstanding the best intentions of a mine's management team can have hard-to-control and serious implications for neighbouring operations. Coolmore needs absolute confidence that such events would not have a disastrous and permanent outcome for its operations and the Department also needs this understanding before it can determine if the SEARs have been met.

We also ask that the Department consider the limits of predictive modelling and its experience of actual impacts versus those predicted in Environmental Impact

Statements. A study¹¹ comparing predicted versus actual water quality of hard rock mines found that while most predicted no impact to water quality, but that when operational, 84% had exceedances of water quality standards in either surface water or groundwater or both. Unfortunately, little work has been done to determine the 'margin of error' of Environmental Impact Statements across air quality, subsidence and so on, notwithstanding that the data exists through Annual Environmental Management Reports. However, it is clear that impacts predicted are regularly both greater and lesser in real world operations.

We will continue to work with our technical experts to understand the implications, and to identify gaps in information and potential mitigation measures, if any, across water, subsidence, air quality, noise, and visual impacts, as well as rehabilitation and maintenance of the mined areas.

The proposed realignment of the Edderton road and the potential for further delays or roadworks along what is an important and time sensitive linkage between Coolmore, other studs and the Scone Equine Clinic is also cause for concern.

At this point, and based on reviews by technical experts, Coolmore has serious concerns about the risks the proposed project poses to our water supply, air quality and land stability and must object to the Project.

Yours sincerely,



Niall Ronan

Chief Financial Officer

Coolmore Australia

¹¹ Maest, Ann *et al.* 2006. "Predicted versus Actual Water Quality at Hardrock Mine Sites". American Society of Mining and Reclamation poster presentation
<https://www.asmr.us/Portals/0/Documents/Conference-Proceedings/2006/1122-Maest.pdf>