

## **Drayton South Coal Project**

### **DETERMINATION PAC RESPONSE TO SUBMISSIONS**

**12 December 2016**

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## SUMMARY

The Drayton South Coal Project (**Project**) is the culmination of extensive consultation with the community (including Coolmore stud farm and Darley Woodlands broodmare farm) and various Government agencies. Significant changes have been made to the proposed mining project as the planning process has progressed and additional substantive expert evidence has been provided in response to recommendations:

- by a NSW Planning Assessment Commission (**PAC**) who reviewed a previous project application in 2013 (**2013 Review PAC**) and a PAC who determined a previous project in 2014 (**2014 Determination PAC**); and
- by a PAC who reviewed this Project application in 2015 (**2015 Review PAC**).

In particular, Anglo American Coal Pty Ltd (**Anglo American**) has reduced the Project's mine disturbance area so that all mining activity will occur behind two natural ridgelines in order to address the recommendations of the 2013 Review PAC and issues raised by Coolmore and Darley at that time.

The impacts and benefits of the Project have been extensively assessed through rigorous independent expert analysis and pre-eminent peer reviewed expert opinions on a range of issues including horse health, water resources, air quality, economics and, most recently, the likelihood of any decline to the Upper Hunter equine critical industry cluster (**CIC**) being triggered by Coolmore and Darley leaving.

The NSW Department of Planning and Environment (**Department**) has thoroughly evaluated all of the evidence (informed by opinions obtained from its independent peer review experts) and weighed up the potential impacts and benefits Project in the Final Assessment Report dated 15 September 2016 (**FAR**) and the Secretary's Environmental Assessment Report dated 21 August 2015 (**Secretary's EAR**). The Department concluded that the Project meets all Government policy and relevant criteria and will have minimal impacts. All management measures and mitigation measures to the extent needed can be dealt with via conditions in the project approval. The Department considers that this Project is in the public interest and should be approved.

The objectors submit that this determining PAC should place heavy weight on the previous PAC reviews and PAC determination and little weight on the Department's FAR. The objectors state that no new evidence has been provided and that mining and thoroughbred breeding cannot co-exist. Both these statements are incorrect.

Substantial new evidence has been provided to this PAC in the form of two detailed expert reports prepared by Mr Houston and two peer review reports from the Department's expert, Professor Bennett.

Anglo American submits that the previous PACs would have come to a very different conclusion concerning the viability of the Upper Hunter equine CIC, perception risk and the likelihood of Coolmore and/or Darley leaving the Hunter Valley if this information had been before those PACs.

Anglo American agrees with the objectors that this PAC needs to weigh up the vast body of evidence before it and decide what is relevant, reliable and persuasive and then balance that against material which does not fit that description. In that regard, Anglo American requests that this PAC undertakes a detailed probative and objective analysis of all the evidence and subjects all of it to the same standard of scrutiny in weighing up the Project benefits and impacts.

The submissions from Coolmore and Darley against the Project have notably changed over time as each potential impact raised by them has been assessed and discounted by leading experts in their fields. The studs' key remaining contention is that perception risk will result in a high likelihood that Coolmore and Darley will leave the Hunter Valley with the risk that the Upper Hunter equine CIC could collapse. None

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of the submissions put forward on behalf of Coolmore, Darley or Hunter Thoroughbred Breeders Association (**HTBA**) or their experts have been able to credibly challenge the underlying basis and rationale of Mr Houston's analysis and his ultimate findings that:

- the structural threat to the equine CIC from the Project is minimal or non-existent; and
- there is no reasonable basis to conclude that the Upper Hunter equine CIC would be under threat or at risk of collapse if the Project was approved.

Mining and thoroughbred operations can and do co-exist as demonstrated by the highly successful Edinglassie broodmare farm. The *Strategic Regional Land Use Plan – Upper Hunter* (NSW Department of Planning and Infrastructure, 2012) (**SRLUP**) ensures that equine CICs in the Upper Hunter are afforded an appropriate level of protection.

Decision-making needs to be based firmly on the foundation of Government policies and guidelines informed by the best available scientific knowledge. One exception for Coolmore and Darley creates a precedent for many more exceptions to the application of Government planning policy and guidelines and thus uncertainty. This is not consistent with the objects of the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**).

This PAC is tasked with reviewing the Project application against current policy, not its own view of what NSW Government policy should be. To refuse development consent to a Project that meets all relevant Government policy and criteria will create significant uncertainty for the future of any development in the Upper Hunter and in NSW more generally.

In a gesture of good faith, Anglo American has offered to surrender some future potential mining rights by any mechanism the Government requires in order to create an exclusion zone for Coolmore and Darley. This offer demonstrates that Anglo American has seriously considered and responded to previous PAC assessments and sought to meet the increasing demands of Coolmore and Darley at each step in the consultation process. Anglo American has made this offer even where there is no NSW Government direction or policy requiring such a concession to be made. Anglo American remains willing to work with and co-operate with Coolmore and Darley and submits that it is entirely reasonable and foreseeable that these two important industries can continue to co-exist, prosper and create important jobs and revenue for the Upper Hunter region.

This Project has the overwhelming support of the local community. Anglo American has pursued the approval of this Project over several years because the Project fundamentals remain sound and attractive. This remains the case under current coal price forecasts. There is no doubt that should this Project be approved that it will deliver significant social and economic benefits to the Upper Hunter region and State of NSW. An extensive body of scientific peer reviewed evidence has demonstrated that the benefits of this Project far outweigh any minimal impacts that will be managed and mitigated. The perception risk and risk of decline of the Upper Hunter equine CIC are not supported by any objective probative peer reviewed evidence and are consequently not material considerations.

Public interest exists in meeting the objectives of the EP&A Act and complying with Government policies and guidelines, considered decision-making and equitable treatment of different interests. The public interest does not exist in favouring two individual equine industry players above other industries or the rest of the equine industry that will continue flourish (even in the highly unlikely event that Coolmore and Darley do leave the Hunter Valley).

It is in the public interest for this PAC to approve this Project.

## 1. INTRODUCTION

### 1.1 The Project

The Project is designed as a 15 year mine life extension of the Drayton open cut coal mine. The Drayton mine has operated in the Muswellbrook community for over 33 years delivering employment stability and significant economic and community value to the region, and more broadly to the State of NSW. Drayton mine operations ceased in October 2016 with the majority of employees taking a redundancy package. Ten employees remain on site managing the ongoing requirements of the site and the implementation of the approved Drayton mine closure plan.

The principal value of the Project lies in the high quality coal resources held in the Drayton South Exploration Licence area. In summary, the Project will provide access to 73.5 million tonnes (Mt) to produce a standard Newcastle export thermal coal product. It is expected to employ 500 people and have a total direct expenditure of \$131 million per annum over its 15 year life. The total net production benefit, as acknowledged in the PAC Review Report dated 26 November 2015 (**Review Report**), in present value terms, is estimated to be \$464 million. This includes \$93 million in company taxes payable to the Commonwealth Government and \$233 million in royalties to the NSW Government. The existing Drayton mine assets and infrastructure will be used to operate the mine and process the coal.

This is the second Project application by Anglo American for an open cut coal mine in this location. In refusing the first application for a larger project in October 2014, the 2014 Determination PAC made recommendations in relation to any future open cut mine application in the Drayton South area. This application reflects those recommendations as well as addressing specific issues raised by the neighbouring horse stud and broodmare farm throughout the consultation process.

Importantly, the mine footprint is significantly reduced and the southern and western boundaries have been drawn back and aligned to meet the minimum recommendations of the PAC Review Report dated 10 December 2013 (**2013 Review Report**) and 2014 Determination PAC decision. This Project application includes an Environmental Impact Statement dated May 2015 (**EIS**) that assesses all potential impacts of the smaller Project. The EIS includes detailed reports from independent experts (a number of which have been peer reviewed by leading independent experts in their respective fields) which demonstrate that all amenity issues such as: visual; air quality; noise and blasting comply with or exceed all government policy.

### 1.2 Report purpose

The purpose of this submission is to:

1. Provide independent expert evidence that responds directly to the submissions of Coolmore, Darley and their experts regarding the likelihood that the studs will leave the Hunter and cause the terminal decline of the Upper Hunter equine CIC.
2. Respond to misleading statements and factual errors in presentations delivered at the PAC Public Meeting on 16 and 17 November 2016 (**Public Meeting**) generally by consultants acting on behalf of Coolmore, Darley and/or HTBA.
3. Summarise relevant factors for the PAC to consider in determining whether or not to approve the Project.

### 1.3 Assessment

Anglo American is seeking development consent under Division 4.1 of Part 4 of the EP&A Act for the Project.

In accordance with Clause 3 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (NSW), Anglo American made a request for the Department Secretary's Environmental Assessment Requirements (**SEARs**) on 12 December 2014. Following consultation with the relevant government agencies, the SEARs were issued on 19 December 2014. Revised SEARs were issued by the Secretary of the Department (**Secretary**) on 13 April 2015.

The Project was referred to the Commonwealth Department of Environment (**DoE**) (now Department of Environment and Energy) on 17 December 2014. On 4 March 2015 the DoE declared that the Project is a controlled action due to its potential impacts on two matters of national environmental significance (**MNES**), namely:

- listed threatened species and ecological communities; and
- a water resource, in relation to coal seam gas development and large coal mining development.

The DoE has confirmed that the Project is to be assessed under its bilateral assessment agreement with the NSW Government.

The EIS prepared by Hansen Bailey was placed on public exhibition from 15 May 2015 to 19 June 2015. Anglo American relied upon peer reviewed independent expert reports and extensive quantitative investigations to demonstrate there will be no or minimal impacts on Coolmore stud farm and no impacts on Darley Woodlands broodmare farm as a result of the Project.

A total of 4,123 submissions were received by the Department during the public exhibition period including 13 from public authorities. No public authorities objected to the Project.

A total of 4,026 (or 98%) of public submissions supported the Project. Eighty three (83) submissions from special interest groups and the community registered an objection to it.

The Department completed a Preliminary Environmental Assessment Report for the Project in August 2015 in which the Director of Resource Assessments and the Deputy Secretary Planning Services concluded:

*"The proposed mine plan complies with the recommendation made by the NSW Planning Assessment Commission in 2013 to keep open cut mining entirely behind the second ridgeline"*

*"The project would extract a significant coal resource of around 75 million tonnes from an area within the Hunter Coalfield that has long been earmarked for coal mining development"*

*"It is also satisfied that the extraction of this coal resource would generate substantial economic benefits for the regional and State economy"*

*"The economic benefits of the project would be overwhelmingly positive in terms of securing royalties and taxes for Government to spend on infrastructure and services, creating jobs, and stimulating the regional and State economy"*

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*"The Department has concluded that the project is unlikely to have any significant physical impacts on the studs, and would certainly not affect the physical capability or suitability of the site to be used for horse breeding"*

*"The Department notes that there are likely to be a number of economic and practical barriers to the relocation of these thoroughbred operations (such as the proximity to other thoroughbred operations in the Upper Hunter and Sydney, and the existing capital investment in the studs), and even if the owners of these operations did decide to leave the area, there is no reason why the properties could not continue to be used to breed thoroughbred horses in the future"*

*"Overall, the Department is satisfied that the benefits of the project would outweigh its costs, and believes that the proposed mine plan strikes an appropriate balance between protecting the interests of the horse studs and realising the significant economic benefits that would flow to the region and the State if the project is allowed to proceed. Consequently, the Department considers the project to be in the public interest, and recommends that it be approved subject to strict conditions"*

On 13 August 2015, the NSW Minister for Planning requested that the PAC conduct a review of the Project and specifically:

- consider the EIS, issues raised in submissions, the formal response to those submissions, and any other information provided during the course of the review;
- assess the merits of the Project as a whole having regard to all relevant NSW Government Policies, paying particular attention to the potential impacts on the operations of Coolmore and Darley Woodlands; and
- recommend further measures to avoid, minimise or manage potential impacts of the Project.

The 2015 Review PAC established to review the development application comprised Ms Lynelle Briggs AO (chair), Mr Ross Carter and Ms Abigail Goldberg. The 2015 Review PAC held public hearings on 10 and 11 September 2015 in Denman Memorial Hall, and heard 96 verbal submissions from individuals, special interest groups, local businesses and Drayton employees. The 2015 Review PAC also received just over 18,000 submissions which comprised of 74 objections to the Project, 8 submissions that present a neutral position and 17,943 submissions (99.5%) in support of the Project.

Despite this level of public support, the 2015 Review PAC issued a Review Report recommending that consent for the Project be refused on the basis that the perceived impacts of the Project would affect the reputation of Coolmore and Darley and there was a real risk of them leaving the Hunter Valley triggering a "terminal decline" of the equine CIC. In other words, even though the 2015 Review PAC found there were no significant impacts from the Project, the 2015 Review PAC concluded that perception risks were sufficient to recommend refusal because of the potential consequences of Coolmore and Darley leaving.

Anglo American carefully considered the findings of the 2015 Review PAC and commissioned new independent expert evidence from Greg Houston of HoustonKemp Economists dated 29 March 2016 (**Houston Expert Report**). The Houston Expert Report responds to the likelihood of Coolmore and Darley abandoning the Upper Hunter Valley and whether the equine CIC would be under threat and would terminally decline if Coolmore and/or Darley chose to leave.

In this regard, Greg Houston found that:

- it is extremely unlikely that the Project would cause Darley to leave the Upper Hunter because it is in Darley's strategic, operational and financial interest to maintain its operation in the Upper Hunter;
- similarly, it would not be in Coolmore's interest to leave the Upper Hunter; and
- even in the unlikely event that Coolmore and/or Darley did leave the Upper Hunter, the equine CIC would not be under threat. The Upper Hunter equine CIC will still thrive and be the largest thoroughbred breeding region in Australia and New Zealand.

Anglo American's Response to the PAC Review Report dated May 2016 (**2016 Response**) includes the Houston Expert Report and corrects a number of misleading statements and factual errors in the information that the 2015 Review PAC relied on in making its findings. The 2016 Response also provides comments on other matters raised in the Review Report.

Finally, the 2016 Response summarises the significant factors for this PAC to consider in deciding whether or not to approve the Project including:

- the Secretary's EAR;
- the Houston Expert Report;
- the reduced mining footprint which aligns with minimum buffer distance guidance included in the PAC review for the previous Project application;
- existing land use policies and the fact that the Project complies with applicable standards and guidelines in relation to air quality, noise and blasting;
- the significant body of peer reviewed evidence demonstrating that the Project will not have any impact on horse health;
- the unsubstantiated nature of any reputational, image or branding concerns, which Anglo American contends are unfounded and grossly overstated;
- Anglo American's undertaking to the NSW Government to create and guarantee a mine exclusion zone to address any concerns of Coolmore and Darley in relation to future mine creep;
- the independent peer reviewed evidence demonstrating that the Project is viable and its benefits are real and measurable, and
- the overwhelming support from the local community for the Project.

The 2016 Response concludes that there is no logical reason or probative evidence to support a conclusion that Coolmore and Darley will leave the Upper Hunter as a result of the Project or that their departure would cause a terminal decline in the equine CIC.

The Department provided the 2016 Response to Coolmore, Darley and the HTBA for review and comment. The Department also commissioned independent reviews of key aspects of the 2016 Response and in particular the findings of the Houston Expert Report. This review was conducted by Professor Jeff Bennett. Both the Houston Expert Report and the independent reviewer concur that the risk of Coolmore and/or Darley leaving is extremely unlikely and if they chose to do so that the equine CIC would only experience a relatively minor impact.

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In consideration of the above, the FAR was issued to the PAC recommending approval of the Project subject to conditions. In the FAR, the Department concluded the following:

*"The Department considers that the assessment process for the project has been extensive, detailed and informed by numerous experts in a range of fields. The Department has consulted widely with the local community and industry (both for and against the project). The Department has paid careful consideration to the opinions of the local and broader community and key stakeholders in the thoroughbred industry. It has also considered the advice and extensive technical analysis of relevant Government agencies and the recommendations made by the Commission."*

*"Overall, the Department's position remains that, subject to implementation of mitigation and management measures proposed either by Anglo or the Department's assessment, the project meets all relevant NSW Government policies and assessment criteria."*

*'The Department considers that the proposed mine plan provides an appropriate balance between the efficient recovery of a significant State resource and the protection of an important agricultural industry.'*

A PAC comprising new members has now been formed to determine the current Project application. This PAC has sought submissions, held a Public Meeting, and will now determine the Project.

## 1.4 Report structure

This report includes:

- **Section 2** - presents a summary of Greg Houston's response to presentations at the Public Meeting and subsequent objector submissions to the PAC. The full supplementary independent expert evidence from Greg Houston dated 9 December 2016 (**Houston Supplementary Expert Report**) is at **Annexure 1**;
- **Section 3** - addresses various factual errors and misleading statements made in presentations at the Public Meeting and recent written submissions to the PAC; and
- **Section 4** - addresses relevant factors that the PAC must have regard to in determining the Project application.

## 2. SUMMARY OF HOUSTON SUPPLEMENTARY EXPERT REPORT

Greg Houston has prepared the Houston Supplementary Expert Report (at **Annexure 1**) in response to the issues raised at the Public Meeting and subsequent submissions lodged with the PAC from Coolmore, Darley and/or HTBA and their experts.

Mr Houston has significant experience analysing the structure and essential economic characteristics of the thoroughbred breeding industry, including the markets in which stallion services are provided to the owners of broodmares through acting on behalf of the parties who succeeded in Federal Court proceedings resisting a challenge to natural cover requirements (Houston Supplementary Expert Report, p 1).

His report should be read in conjunction with the Houston Expert Report. Mr Houston's key findings remain unchanged and have been strengthened following his analysis of further information provided by the thoroughbred industry, in particular, in relation to the time taken to develop appropriate land for stud and broodmare operations. Some key findings are reproduced below for the consideration of this PAC.

Mr Houston's assessment of the decisions that each party will need to take in the event that Coolmore decides to relocate its operations away from the Upper Hunter as a result of the Project being approved shows that:

- on its own estimates, it would take up to eight (8) years for Coolmore to develop a new stud farm in, say, Goulburn, Victoria – if Coolmore was instead to purchase an existing stud facility, this could displace (most likely to the Upper Hunter) some of the stallions already standing in Victoria, reducing the effect on the Upper Hunter equine CIC;
- to the extent that the owners of stallions presently standing at Coolmore were sufficiently concerned at the perceived impact of the Project, they would most likely move their thoroughbreds to another stud in the Upper Hunter before mining began – in that event, those owners may have no reason to follow Coolmore once, up to eight years later, it was finally able to relocate away from the Upper Hunter;
- alternatively, to the extent that the owners of stallions presently standing at Coolmore were not concerned at the perceived impact of the Project, they may not move their stallions at all, in which case Coolmore would also have no reason to move;
- broodmare owners have no reason to leave the Upper Hunter until or unless some of the Coolmore stallions relocate away – this means that each stallion owner would (after up to eight years, when Coolmore had established its new property) face the choice of either:
  - moving to Goulburn with Coolmore, on the assumption that all of its broodmare owning customers would follow; or
  - leaving Coolmore and moving to a new location in the Upper Hunter, where it need not make any assumption as to the likelihood that its broodmare owning customers will all follow;
- the stallion services business is dynamic, with over two thirds of the premium stallions in any one year no longer remaining in that group eight years later – it follows that, by the time Coolmore had developed its new stud farm in Goulburn, there is no basis on which to assume it will have retained its current share of premium stallions; rather, Coolmore can be expected to have lost two thirds of its premium stallions through natural attrition, and would

need to compete with all other studs to identify and arrange to stand at its property a substantially new crop of premium stallions;

- if Coolmore were to move to Goulburn, there would need to be a significant increase in the number of covers undertaken in that location, unless Coolmore was to accept a reduction from the number its stallions presently undertake – however, it is improbable that there is a sufficient number of broodmare farms maintaining, unused, such tracts of land and facilities at the appropriate standard, in order to accept such an increase in the number of broodmares; rather, it is more likely that:
  - the number of broodmares able to relocate would need to increase gradually over a number of years after the first stallions moved to that region; and
  - consequently, only a few stallions could move to Goulburn each year without there being a shortage of broodmares;
- setting aside the constant change in composition of those stallions regarded as being in the premium category, the lengthy timeline for these contemplated changes to occur means that:
  - there is ample time for shuttle and other stallions to enter and stand in the Upper Hunter if any of the existing stallions were to leave; and
  - in any case, the project would be in the latter stages of its life before it would be practicable for a significant number of stallions to leave the Upper Hunter – since, in the interim, there would be shortages of suitable, fully developed farms at which those stallions could stand.

Similarly, Mr Houston's assessment of the decisions that each party would need to take in the event that, if the project was to be approved, Darley decided to relocate its Woodlands broodmare operation away from the Upper Hunter shows that:

- to the extent that it was sufficiently concerned at the perceived impact of the project, Darley would need to move its broodmares before mining began – however, given the integrated nature of its Woodlands and Kelvinside facilities, the only way to achieve this whilst keeping its stallions and broodmares in close proximity would be to move its broodmares to another location in the Upper Hunter while maintaining its Kelvinside stud farm; and
- since Darley's Kelvinside stud farm is unaffected by the proposed mine, it must be significantly less costly and much easier in terms of operational practicalities for Darley to move its broodmare facility to another location in the Upper Hunter, rather than move both its broodmare and stud farms to Victoria.

Mr Houston considers that there is sufficient evidence as to the relative magnitudes of the costs and benefits to draw safely the conclusion that it is not in Coolmore or Darley's economic interests to relocate away from the Upper Hunter.

Further, he concludes that perceptions are not crucial to stud or broodmare farm operations and notes that Dr Stowe's empirical analysis supports this conclusion (Houston Supplementary Expert Report, section 6).

Mr Houston's analysis shows that, even if Coolmore and Darley were to relocate their operations away from the Upper Hunter:

- constraints as to the availability of suitable land and facilities that the studs themselves have emphasised mean that such a decision could only be given effect over an extended period of time;
- decisions by the principal customers of Coolmore and Darley as to whether and when they may decide to relocate outside the Upper Hunter would generally not be required for many years; and
- the extended period of time over which it would be practicable for the full complement of stallions and broodmares served by Coolmore and Darley's existing facilities to relocate outside the Upper Hunter would present a long period over which rival breeding operations could respond to the gap in the market left by Coolmore and Darley.

In his opinion, the structural threat to the equine CIC from the Project is minimal or non-existent and there is no reasonable basis to conclude that the Upper Hunter equine CIC would be under threat or at risk of collapse from the Project. Mr Houston notes that the total number of stallions standing in the Upper Hunter has been relatively stable over the past ten years, despite a number of studs in both Upper Hunter and Victoria having transferred ownership.

Mr Houston also analysed each of the potential barriers to entry raised by Dr Stowe and/or Dr Williams and concluded as follows (Houston Supplementary Expert Report, p iii):

**First**, the limited number of prospective premium stallions would not prevent stud farms from expanding in response to Coolmore and/or Darley leaving the Upper Hunter because:

- owners of existing stallions can easily move their stallions to the Upper Hunter;
- the supply of stallions is dynamic, and so a large proportion of the current group of top stallions will no longer be in that bracket by the time Coolmore and/or Darley leave, if at all; and
- the owners of shuttle stallions can quickly respond by choosing to stand them in the Upper Hunter for one or more seasons, as market opportunities arise.

**Second**, the large capital cost of a stallion is not a barrier to entry – it is a standard principle of competition economics that a fixed cost is not a barrier to entry if it can be recouped on exit. The cost of purchasing a stallion can largely be recouped by selling the stallion, and so the capital sum involved cannot properly be regarded as a barrier to entry.

**Third**, although stallions are individually differentiated, this does not prevent other stallions from replacing any that leave the Upper Hunter. On the contrary, the existence of differentiation among broodmares (and so the preference of their owners) implies that stallion owners will benefit from being located in close proximity to a large pool of differentiated broodmares (and vice versa). Such differentiation serves to strengthen the motivation of owners to stand their stallions in the Upper Hunter if other stallions were to leave.

**Fourth**, if Coolmore and Darley were to relocate and all of their stallions were to follow, there is no risk that an 'excess supply' of stallions in the Upper Hunter could deter entry. On the contrary, the exodus of stallions would cause a shortage in the Upper Hunter, attracting other stallion owners.

In Mr Houston's opinion, the only notable barrier to entry and expansion in thoroughbred breeding is the availability of appropriate land for stallions/broodmares which, as emphasised by Coolmore and Darley, can take many years to develop. This requirement places a constraint on

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the rate at which any locational cluster can expand and, further, during the time that new land suitable for a breeding operation is being developed in Victoria, land suitable to support entry or expansion in the Upper Hunter would be already available.

Finally, following its own independent assessment in 2008, the Australian Competition and Consumer Commission, the pre-eminent, expert government body on competition matters, concluded that there were low barriers to entry in thoroughbred breeding.

Contrary to numerous submissions and issues raised at the Public Meeting, Mr Houston's analysis in his report assumed that all of the covers presently being provided by stallions standing at the Coolmore stud farm and Darley Woodlands broodmare farm would instead be undertaken at those studs' new location. This analysis was not based on any assumption as to whether stallion or broodmare owners instigate the process of moving their thoroughbreds from one location to another, or as to the dynamics of which party would make what decision first, etc. Rather, his results are consistent with adopting the assumption preferred by Dr Stowe and many others that 'broodmares follow stallions'.

Mr Houston considers that the change in the number of covers is a good approximation for the effect of a change to the functioning of the equine cluster, because the number of covers is highly correlated with the number of thoroughbreds and broodmares in the region.

In his opinion, although the equine CIC may reduce in size if Coolmore and Darley left the Upper Hunter, the equine CIC would not collapse even if all of the stallions currently standing at Coolmore and Darley Woodlands left as well as the broodmares they cover. The equine CIC would still be approximately double the size of any other, successful thoroughbred breeding cluster in Australia or New Zealand. This does not account for the likely expansion by other, competing studs in the Upper Hunter equine CIC as they take advantage of the gap left by Coolmore and Darley. Such an assumption represents the worst case scenario for the equine CIC since it is much more likely that not all of these stallions and broodmares would leave the Upper Hunter.

In summary, the finding by the previous 2015 Review PAC that there would be a real threat to the equine CIC and a potential terminal decline if Coolmore and Darley left is not supported by the empirical evidence.

### 3. PERCEIVED ISSUES RAISED BY COOLMORE, DARLEY, HTBA & OTHERS

The Review Report cites "*potential reputational risks*" posed by the Project as a "*real threat*" to Coolmore and Darley and that they "*may leave the Hunter Valley*" should the Project proceed.<sup>1</sup>

The reputational risks commented on in section 6 of the Review Report include direct and indirect visual impacts, dynamic views, blasting, air quality and noise all of which could potentially impact the carefully crafted presentation of Coolmore's stud and Darley Woodland's broodmare farm.

The 2016 Response addresses these reputational risks directly, however, following the Public Meeting it is necessary to again respond to misleading statements, factual errors, and contradictions to the available evidence that were made in public presentations and subsequent submissions to the PAC.

This section assesses the evidence presented in the EIS and other subsequent Anglo American submissions against material presented predominately by Coolmore, Darley, and HTBA commissioned consultants and others who presented at the Public Meeting and subsequently lodged submissions with the PAC. Responses to other public submissions is also provided at **Annexure 2**.

In summary, an objective analysis of the facts and the evidence demonstrates that:

- the Project poses no risk to the stallions, the premium asset of a stud and primary element in the image, branding and operational performance of the stud;
- the Project poses no risk to the broodmares at Darley;
- the Project poses no risk to any of the landscape factors that support Coolmore and Darley's image, branding and operational performance;
- Edinglassie remains a good comparison to Darley Woodland's broodmare farm in that it represents the highly successful use of prime agricultural land for thoroughbred horse breeding whilst being in very close proximity, and more significantly clear visual impact, to adjacent mining operations. It provides, albeit in smaller scale than Darley, a clear example of thoroughbred horse management from both a horse health and human safety perspective;
- any residual perceived risk to Coolmore stud farm and Darley Woodlands broodmare farm can be further minimised through careful monitoring, adaptive management and consultation. The fact that stringent conditions have been included in the draft conditions of consent does not mean that there are measurable impacts that need to be addressed. The conditions of consent put forward by the Department are intended to encourage co-operation between Anglo American and Coolmore and Darley and provide a stringent adaptive management, reporting and auditing framework; and
- Coolmore and to a lesser extent Darley's investment decisions are inconsistent with their position that mining and thoroughbred horse breeding cannot co-exist.

<sup>1</sup> Review Report, p iii, last two paragraphs.

### **3.1 An appropriate balance between two important industries**

The consultation process for the Project has been long and extensive and Anglo American has sought to find solutions, compromises and an appropriate balance that allows the Project to proceed and the concerns of Coolmore and Darley to be addressed. Numerous meetings have been held. Technical reports have been provided and peer reviewed by leading independent experts engaged by Anglo American and the Department. Substantial changes have been made and the latest Project strikes an appropriate balance that allows two important industries to co-exist and prosper.

Anglo have consistently maintained that the Project would be designed in such a way that it did not cause damage to the operational performance of either Coolmore or Darley.

The Department, in the FAR, determines that the Project complies with relevant criteria at Coolmore stud farm and Darley Woodlands broodmare farm:

*"The Department's position remains that, subject to implementation of mitigation and management measures proposed either by Anglo or the Department's assessment, the project meets all relevant NSW Government policies and assessment criteria. The Department considers that the proposed mine plan provides an appropriate balance between the efficient recovery of a significant State resource and the protection of an important agricultural industry.*

The Department's assessment of the Project is made after extensive evaluation and review by independent experts assessing potential issues, particularly in relation to the Coolmore stud farm and Darley Woodlands broodmare farm operations, and is consistent with current planning policy and legislation.

Further, as discussed in Section 3.17 of this report below, the investment decisions of Darley and Coolmore are completely inconsistent with their claims that mining and thoroughbred breeding are incompatible uses and that no person in their right mind would locate a horse stud or broodmare farm in proximity to a mine.

### **3.2 Changes in Coolmore's and Darley's perceived risks**

Anglo American approached this Project application to firstly ensure that there would be no reputational risk associated with either actual or perceived impacts to the Coolmore stud farm or Darley Woodlands broodmare farm. It is unfortunate that the considerable effort and degree of change in relation to managing the perceived risks from the first Project application has not been acknowledged by either Coolmore or Darley. This is especially disappointing since discussion concerning these perceived risks, real or otherwise, formed a substantial part of many of the consultation meetings held with both businesses.

Equally unfortunate is the manner in which the presentations at the Public Meeting relating to these areas of risk continue to misrepresent the facts and fail to present an objective and quantitative assessment of actual risk. It has become increasingly apparent over the course of the consultation process how the studs opposition to the Project proposal has changed over time from initially providing suggestions regarding the management of potential impacts if mining was kept behind the two prominent natural ridgelines to a complete ban on any mining in Drayton South and calls for mandatory exclusion zones.

Early in the formative phase of the Drayton South mine plan the Anglo American CEO and the respective stud CEO's stood on the first ridgeline overlooking Coolmore and guaranteed that the

mine would never progress though that ridge. Subsequent meetings focused on all the various environmental and technical aspects of the proposed mine plan. For instance, during the first Project application process several discussions were based around:

- the positioning of the Houston visual bund (not part of this application), the mode of construction to minimise and views of earthmoving equipment during the brief build period;
- the water discharge point (again not part of this application) and its location in relation to Coolmore extraction pumps;
- selection of tree species for tree screening, and a range of other items; and
- the possibility of Darley and Anglo American engaging with the NSW Government to constrain any possibility of western creep of the mine.

The position of Coolmore and Darley is no longer about what, when, and how but rather never, even in the face of clear scientific evidence that the potential impacts are either nil or immaterial. This is exemplified by the fact that the perceived risks focussed on by Coolmore and Darley have also changed over time. The initial focus on risks to horse health shifted to reputational risk when the revised Project was put forward and it became clear from the overwhelming body of evidence and peer reviewed reports that there was no horse health impact.

Anglo American has in good faith extensively redesigned the mine to reflect both the concerns of the studs and the recommendations of the PAC. Anglo American acknowledges the importance of the "brandscape" developed by Coolmore and Darley consistent with their place in the equine industry cluster, and the perception and reputation derived from it. This is why the EIS addresses this issue directly by specifically identifying and assessing the sensory awareness factors associated with perception.

A key influencer in Anglo American's design of this Project and its reduction of mine footprint and mine boundaries was the independent advice of Dr Lamb commissioned by the 2013 Review PAC preparing the 2013 Review Report for the assessment of the first Project application. The full adoption of Dr Lamb's recommendations to materially minimise or eliminate visual impacts substantially diminishes any argument that the mine remains an actual or perceived risk for either Coolmore stud or Darley broodmare farm.

### **3.3 Visual and Landscape**

The 2013 Review PAC and 2014 Determination PAC considered the issue of landscape value. In that instance, the 2013 Review PAC employed the expert opinion of Dr Richard Lamb to provide advice on the potential impacts of the mine proposal.

Dr Lamb nominated several areas for improvement. All of these recommendations are adopted in this Project application, as summarised in the table below.

First Project Recommendation	Second Project Application
1. Consider removing the Houston Pit and Bund from the Project.	<b>Adopted.</b> The Houston Pit is removed.
2. Consider re-aligning the SE margin of the Whynot Pit.	<b>Adopted.</b> SE margin of Whynot Pit is removed.

First Project Recommendation	Second Project Application
3. Design of tree screens should be the subject of specific conditions of consent.	<b>Adopted.</b> Department's draft conditions specifically address extensive tree screening.
4. Consider wider setbacks of the Redbank and part of the Blakefield Pit in the order of 1km to 2km.	<b>Adopted.</b> Mine setback to second ridgeline. <ul style="list-style-type: none"> <li>• Redbank pit removed.</li> <li>• Part of Blakefield Pit removed.</li> <li>• Closest point mine ever gets to stud fence line is 1km and for only a short period.</li> </ul>

In his report on the first Project application, Dr Lamb made the following comments:

*"Most of Darley Woodlands has no fixed views of the proposed mine site. The exception is the high land that includes the trig station, Trig Hill and the hilly grazing land in the vicinity in the north east part of the property, as well as the frontage of the property to part of the Golden Highway."*

In relation to Coolmore, Dr Lamb also made the following comments:

*"Most of the more intensively used part of Coolmore also has no view of the proposed mine site (first project application). However, the north west and eastern parts of the property are exposed to varying extents to views towards the south and south east sectors of the proposed mine site, which primarily includes land proposed to be extracted in the operations associated with the Redbank and Houston Pits."*

Michael Wright presented at the Public Meeting on behalf of Coolmore and Darley. He was also present for many of the consultation meetings with Anglo American. Earlier meetings involving Mr Wright included suggestions by him on more appropriate locations for the Houston visual bund. Mr Wright suggested items like large balloons placed to help depict the location and size of the Houston bund. Another suggestion from Mr Wright was the potential for a large billboard arrangement during the construction of the bund with a rural scene on it to hide the bund during construction. Possible relocation of the visual bund further up the valley was the subject of several meetings. Other discussions with Mr Wright have been around the mix of tree species that could constitute appropriate tree screens. It is noteworthy that in the identification of over 50 sensitive visual sites for assessment by both Coolmore and Darley, neither business nominated Trig Hill or Coolmore Hill as sensitive sites. Mr Wright now claims them as highly sensitive.

In addition, Mr Wright continues to state that the Project will encroach to within 900m of Coolmore stud when the Project will never be closer than 1km to either business and 1.6km from any operational area.

In relation to this Project Coolmore and Darley now state their position that '*these two landscapes cannot co-exist*'. No longer are options proposed to address or minimise impacts but rather an absolute rejection of any mine plan ever being acceptable in the Drayton South area.

Key issues raised in Mr Wright's presentation on the landscape features of importance to horse breeding studs and responses are provided in the table below.

Landscape Value (Michael Wright)	Project Impact / Response
Abundant water supply	Nil impact. Project is a nil release site and highly likely to be a nil taker of water from the Hunter River. Saddlers Creek only flows during high rain events when Hunter River flows are more than adequate for the studs as extractors of water from the river. The water quality of Saddlers Creek will actually improve as the Project includes remediation of previous damage caused by agricultural activity in past years.
Broad river flats	Nil impact. The mining area is neither permitted on nor includes any river flats. Anglo American owned land on or adjacent to river flats remains as agricultural land over the life of the Project.
Rich and deep alluvial soils	Nil impact. No deep alluvial soils are evident in the Project area. Biophysical Strategic Agricultural Land ( <b>BSAL</b> ) associated with Saddlers Creek is addressed later in this submission.
Steeply undulating slopes; scenic qualities for tourism	Nil impact. The Project lies entirely behind ridge lines and has no impact on stud operating areas. There is no direct visual impact from the Golden Highway or the farm land other than Trig and Coolmore Hill. Neither are used for tourism or customer visitation. Any possible visuals from Edderton Road are proposed to be mitigated by earth bunding and tree screening.
Mild climate	Nil impact. Remains the same.
Cultural (National Trust Mapping)	The use of a 'National Trust' Landscape Conservation Area map fails to note that Mt Arthur is already within the highlighted area as well as the Plashett dam and associated pumping station. Nor does it highlight the developments of Bengalla mine and infrastructure within the nominated Conservation Area.
Landscape buffer (Proximity)	<p>The Project does not impinge on any defined CIC area and is in accordance with the SRLUP. As stated by the Department in the FAR, a '<i>case by case approach provides decision makers with greater flexibility to ensure that any setbacks are tailored to address the particular circumstances of the project, site characteristics, the nature of impacts and the nature of surrounding land uses, without unnecessarily sterilising productive land or land use.</i>'</p> <p>The 850m in the presentation should be corrected to 1km for the nearest the mine will ever come to the stud fenceline as stated in the Response to Submissions dated 24 July 2015 (<b>RTS</b>). Note that mine operations are over 2km away for</p>

Landscape Value (Michael Wright)	Project Impact / Response
	around 75% of the mine life.
Tree Screening (Edderton Rd)	The trees shown were planted by a farmer as part of a government scheme well before Anglo ownership of the land. It is not a 'tree screen'. This has been pointed out to Mr Wright several times previously but he continues to use it as an example. Anglo American have planted initial tree screens along the southern first ridge line and along the Golden highway. Trees are now typically 6-7m in height with further infill plantings planned should the Project be approved.
Indirect Visual Impacts – Dust	The reliance of a Mt Arthur misfire event in 2014 and the Hazelwood fires in an attempt to illustrate potential impact is entirely alarmist. Drayton has an excellent track record on blast quality and management with nil blast fume non compliances. The coal in Drayton South is vastly superior to Victorian brown coal and does not have a spontaneous combustion propensity, the cause of the Hazelwood fires.
Indirect Visual Impacts – Light Pollution	Drayton South will have little permanent fixed infrastructure, the main source of mine light pollution. The infrastructure remains as is at Drayton which is approximately 13.7 kilometres away from the Coolmore boundary and approximately 14.7 kilometres away from the Darley Woodlands boundary. Dragline lighting and mobile equipment lighting intensity will be significantly less than that depicted at Mt Arthur and Hunter Valley Operations due to the smaller scale of operations (one third the size).

The key point of Mr Wright's presentation is proximity and buffer areas. It is acknowledged that the Project will be in closer linear proximity to Coolmore and Darley Woodlands than existing mines (although the mine expansion diagram fails to point out that Mt Arthur has progressed south and is adjacent to the proposed Project area). The relational proximity needs to be viewed in the context of the fact that Coolmore and Darley Woodlands are shielded from direct views of the mine because it has been set back behind two ridges as recommended by the previous PAC. In so doing the triggers of perceptions for proximity are removed or so diminished that they present minimal perception risk (visual, air quality, noise, blasting).

The Department correctly points out that a linear method of establishing a buffer doesn't take into account specific landscape features and factors that can mitigate or eliminate any perception of proximity. As demonstrated by the various studies contained in the EIS, the sensory perception triggers (visual, air quality, noise, blasting) are all addressed and demonstrated to be of minimal impact. If the area between the studs and the Drayton South mine area were flat and unprotected by ridges and natural topography then the mining operations would indeed be clearly visible from the front fencelines of Coolmore and Darley Woodlands, and proximity would be a much more significant issue in determining impact on the

'brandscape' of the studs. This is not however the case and consequently any linear buffer which does not take into account natural topography should be disregarded.

In summary from a visual and landscape perspective, the Project:

- addresses all of Dr Lamb's recommendations from the first Project application;
- contains all parts of the mine behind natural ridgelines;
- ensures the most southern sections of the mine are behind an additional, second ridgeline where the mine is closest to the Coolmore front paddocks;
- establishes a minimum buffer distance that is double that of the first application between the most southern mine operations and the stud boundary fencelines; and
- guarantees no future open cut mine boundary creep by way of agreement with the NSW Government by the most effective instrument nominated by the Government.

### **3.4 Adequacy of rehabilitation bond estimation**

Drayton has an approved closure plan which is currently being implemented. The presentation at the Public Meeting by Houghton Environmental Management Pty Ltd (**HEM**) on behalf of Coolmore and Darley was uninformed and incorrect in a number of respects. This is unfortunate as misrepresentation is being used to undermine confidence in the actual performance of Drayton as well as the future performance of Drayton South.

Key issues raised by HEM and responses are provided in the table below.

Rehabilitation Bond ( <b>HEM</b> )	Project Impact / Response
Rehabilitation bond inadequate (\$36 million may need \$66 million)	<p>The actual rehabilitation bond Anglo have lodged by bank guarantee is \$62 million.</p> <p>This amount is calculated using the approved NSW Department of Trade and Investment - Division of Resources and Energy (<b>DRE</b>) Rehabilitation Cost Calculation Tool and is endorsed by DRE.</p> <p>The rehabilitation bond and provision is audited annually by Deloitte.</p>
Uncertainty in Drayton North rehabilitation:  Highwalls; tailings; rejects; inert material	<p>The Drayton mine closure plan is approved by the Department and includes:</p> <ul style="list-style-type: none"> <li>• highwall reshaping;</li> <li>• capping of tailings;</li> <li>• there are no rejects dumps. Rejects have been incorporated in overburden throughout mine life; and</li> <li>• 2mbcm of additional inert material currently stockpiled just in case.</li> </ul> <p>The plan is publicly available on the Anglo American/Drayton website. Possibly HEM are not aware of the approved</p>

Rehabilitation Bond (HEM)	Project Impact / Response
	<p>closure plan and did not review it prior to making their comments at the Public Meeting.</p> <p>Drayton have already commenced implementing the mine closure plan. At the end of 2016 about 30% of 2017 bulk placement is already done.</p>
Complex final landform for Drayton South	<p>The proposed rehabilitated landform for Drayton South is recognised as leading practice. The landform is progressively developed as an integral part of the mine planning process. The costs are likewise progressively incurred as part of the mine operating cost each year. Final rehabilitation costs will thus be reduced and focused on the final void.</p> <p>Experience in using this approach in the USA typically indicates an overall lower cost of rehabilitation as it minimises rehandle of bulk material.</p> <p>The landform seeks to reflect the surrounding landscape and optimise water flows away from the final void and towards Saddlers Creek.</p> <p>This method of final landform design and management is now being adopted by other mining operations in the Hunter</p>
EIS is conceptual with minimal detail	<p>The EIS is an incredibly detailed document comprising 3,130 pages of validated information. Any planning approval granted will require that the Project be conducted '<i>generally in accordance with the EIS</i>'. As with any project, the mining block by mining block detailed mine planning will only commence once the Project is approved and all of the conditions of approval are understood. The EIS contains detailed staged mine plans and specifies the maximum disturbance boundary. The more detailed block by mining block staged plans prepared will need to be consistent with those plans described in the EIS.</p>
Drayton South void lake will not meet rehabilitation criteria	<p>The design of the final void within the Drayton South mining area has been minimised as far as practicable through the innovative GeoFluv™ landform designing process, so that the void lake area represents only 3% of the total Project Disturbance Footprint.</p> <p>As outlined in section 4.8.2 of the RTS, detailed completion criteria for mine closure will be developed and agreed in consultation with the relevant government agencies and community stakeholders.</p>
Extensive rehabilitation needed to protect Saddlers	Saddlers Creek rehabilitation is a key part of the Drayton South Project and some surface management initiatives have

Rehabilitation Bond (HEM)	Project Impact / Response
Creek	already commenced in consultation with the Hunter Local Land Services some years ago in anticipation of eventual project approval. A significant part of the Project capital is to address water management around Saddlers Creek and is described in 7.9.3 and 7.14.3 of the EIS.

### 3.5 Biodiversity

Jan Davis from the Hunter Environment Lobby Inc. provided a submission on the Project and raised a number of issues relating to biodiversity and offsets for the Project. Ms Davis acknowledges that the submission "*reiterates points made at the Public Hearing in Denman in 2015...*".

Key issues raised by Ms Davis and responses are provided in the table below.

Biodiversity (Jan Davis)	Project Impact / Response
Inadequacy of offsets	<p>The Biodiversity Offset Package was generally accepted by agencies in late 2014 for the previous application. The current application reduces the surface footprint by approximately 25%.</p> <p>The adequacy of the offsets package is addressed in Sections 4.9.3 to 4.9.7 and 6.10.2 of the RTS.</p> <p>The relevant regulatory authorities recognise that the current offset package exceeds current State &amp; Federal Government biodiversity offsetting policy.</p>
<p>Volume of biodiversity information missing from the EIS.</p> <p>Range of data supplied to NSW Office of Environment and Heritage (<b>OEH</b>) after the EIS was exhibited. Various other data including landscape features, connectivity values and species composition and structure of derived native grasslands.</p> <p>This information is not publicly available and withheld from public scrutiny.</p>	<p>In their submission, OEH requested 'shapefiles' for all maps prepared for the Biodiversity Assessment Report. Cumberland Ecology provided the additional data layers to OEH on 15 April 2015. This information has assisted OEH in running the proposed offset package through their Biodiversity Offset Calculator. This exercise has confirmed that the biodiversity offsets package exceeds current government policy offsetting requirements.</p> <p>The Biodiversity Offset Calculator results should be available to the PAC and the public if so required.</p>
Insufficient assessment of the cumulative loss of regional habitat and woodland. Lists other recent	Cumulative impacts of current and future mining on biodiversity was assessed in the EIS, as provided in Appendix M of the EIS. Cumulative impact is also

Biodiversity (Jan Davis)	Project Impact / Response
<p>mining projects and quotes losses of woodland at Wambo, Warkworth and Mt Owen Continuation Project</p> <p>Concern with clearing foraging habitats for the Regent Honeyeater and other species</p>	<p>addressed in Section 6.22.1 of the RTS.</p> <p>Appendix A of the EIS Biodiversity Offset Strategy (Appendix N) demonstrated that the offset package can provide habitat for all the MNES present in the Project area or locality. Particular focus for the assessment included the Box-Gum Woodland and habitat for the Regent Honeyeater, Swift Parrot, Greater Long-eared Bat and Large-eared Pied Bat. It also demonstrates that there will be a net gain in habitat in the long term.</p> <p>Due to the staged nature of the Project and that rehabilitation and restoration works will be carried out concurrently, the Biodiversity Offset Strategy is capable of maintaining foraging habitat over the Project life.</p> <p>The offsets provided by the Project will protect existing forest and woodland communities and restore vegetation on farmland. The offsetting arrangements, in combination with the offsets provided by surrounding mining developments, will result in an increase in total woodland vegetation in the locality and an increase in such vegetation under conservation tenures.</p>
<p>No requirement to offset the loss of 274 ha Central Hunter Valley Eucalypt Forest and Woodland ...because of the timing of the controlled action decision.</p>	<p>Addressed in Section 6.10.3 of the RTS.</p> <p>In accordance with the legislation and guidelines, including the EPBC Act <i>Environmental Offsets Policy</i> (2012) and the NSW <i>Biodiversity Offsets Policy for Major Projects</i>, only threatened species, populations and ecological communities prescribed at the time the Controlled Action is determined, must be assessed. As such the Project was not required to assess the impacts on the Central Hunter Valley Eucalypt Forest and Woodland Complex.</p> <p>The Project disturbance footprint has reduced in size by 25% since the previous Drayton South application. The reduced footprint will protect an additional 27.2 ha of Central Hunter Box-Iron woodland, contributing an improved outcome for these ecological values.</p>

### 3.6 Water Resources

Owen Droop, Principal Water Resources Engineer, OD Hydrology (engaged by Coolmore and Darley) and Peter Hodges presented at the Public Meeting. Mr Droop and Mr Hodges raised a number of issues relating to water resources.

The relevant areas of the methodology and outcome of both the surface and groundwater impact assessments undertaken by Anglo American's experts were peer reviewed by Dr Noel Merrick (a recognised expert in this field), and discussed and endorsed by the NSW DPI-Water, peer reviewed by Federal and State Government independent experts (including the IESC and NSW Commissioner for Water). The methodology and impact assessments were also endorsed through the SEARs process. The water impact assessments for the Project are robust and their conclusion that the Project will have no impact on either Coolmore stud or Darley broodmare farm can be relied upon.

Key issues raised Mr Droop and Mr Hodges and responses are provided in the tables below.

Water Resources (Owen Droop)	Project Impact / Response
There is a lack of a clear, confirmed mine plan allowing direct and robust assessment of potential life-of-mine water management system behaviour and impacts.	<p>This statement is not correct.</p> <p>The water balance considered three stages of the mine plan, namely Years 4, 6 and 12. These mine plans are depicted in Figures 4.1 to 4.3 of the Surface Water Impact Assessment.</p> <p>The groundwater modelling considered five stages of the mine plan, namely Years 4, 6, 9, 12 and 15. These mine plans are depicted in Figures 21 to 25 of the Groundwater Impact Assessment.</p>
Water management and supply plans have been developed in isolation of other users competing for the same resources during drought and contributing to impacts during wet periods.	<p>In the week commencing 5 December 2016, the Upper Hunter Mining Dialogue released new figures from its water accounting project. This report shows that last year mining used less than one percent (1%) of the total water flowing through the river system in the Upper Hunter. Agricultural uses, including those related to the equine industry, remain by far the largest water users from the Hunter River.</p> <p>Anglo American will obtain the necessary Water Access Licences under the <i>Water Management Act 2000</i> (NSW) to the extent required. Compliance with the licensing regime under this Act will ensure that there is sufficient water available for other licensed users and environmental purposes. The water balance developed over the Project demonstrates that Anglo American will most likely not have to rely upon the extraction of any water from the Hunter River. However, if they do need to withdraw water they will hold the necessary WALs to do so.</p> <p>Of course their reliance on the Hunter River will remain far less than that of Coolmore or Darley.</p>
Review Report states that in relation to long term final void water and salt balance "the Commission is not convinced that these issues can be addressed via conditions".	<p>The final void water level was predicted using two methods: Groundwater modelling (using the MODFLOW-SURFACT model) and Water balance modelling (using the OPSIM model).</p> <p><u>Groundwater Model Predictions</u></p> <p>At end of mining, the water table will be well below the base of</p>

Water Resources (Owen Droop)	Project Impact / Response
<p>There has been no further consideration by the Proponent or the Department on this issue.</p>	<p>the final void (approximately 115 mAHD). The water table is predicted to recover to 115 mAHD after 245 years, at which point there will begin to be permanent water in the void. The water level is predicted to stabilise at approximately 128 mAHD after 800 years. This level is 17 m below the spill level of the final void (approximately 145 mAHD).</p> <p><u>Water Balance Model Predictions</u></p> <p>Water will begin to accumulate in the void after approximately 250 years. Although the water level will fluctuate due to rainfall, the long-term equilibrium level is predicted to be approximately 126 mAHD. This is 19m below the spill level of the final void.</p> <p>The two modelling methods predict similar equilibrium water levels. Both methods predict that the equilibrium water level will be well below the spill level of the final void.</p> <p>The OSPIM model was also used to perform a salt balance for the final void. The long-term salinity of the stored water is predicted to range from 4,250 to 8,800 mg/L. For the first 350 years after mining, the salinity of void water is predicted to be less than that of groundwater in the surrounding Permian coal measures. As such, there will be no increase in total dissolved solids (<b>TDS</b>) during this period.</p> <p>After 350 years, the void water is expected to be more saline than groundwater in the surrounding Permian coal measures. The TDS in the Hunter River alluvium is predicted to increase by a maximum of 25 mg/L (4.3%). This will not alter the beneficial use category of the Hunter River alluvium. The predicted impact will be minor by today's standards. In the circumstances, it was not necessary for the Department or the proponent to consider this matter further.</p>
<p>Assessment of the final void has been undertaken effectively in isolation from the long-term spoil and groundwater assessment. The assessments that need to be linked and integrated are instead inconsistent and simply do not make sense together.</p>	<p>These assumptions are not correct.</p> <p>The water balance modelling for the final void considered groundwater inflows and outflows over the long term from the mined out area. The rates of inflow and outflow were provided by the groundwater model. As a result, the two modelling approaches predicted similar equilibrium water levels.</p> <p>Mr Droop may be unaware that the relevant areas of the methodology and outcome of both the surface and groundwater impact assessments were peer reviewed Dr Noel Merrick, and discussed and endorsed by the NSW DPI-Water, peer reviewed by Federal and State Government independent experts (including the IESC and NSW Commissioner for Water and</p>

Water Resources (Owen Droop)	Project Impact / Response
	ultimately endorsed in a previous PAC review and in the SEARs.

Water Resources (Peter Hodges)	Project Impact / Response
Open cut mining will result in "cross-contamination" of groundwater from different strata, making the resultant mixture unusable.	All groundwater inflows into the mining areas will be captured and directed to mine water dams. The captured mine water will be reused to satisfy operational water demands (such as dust suppression and process water). No such water will be discharged from the mine site. Any surplus water will be returned to the existing Drayton mine water storages located more than five kilometers from Coolmore stud and Darley broodmare farm.
Water stored in the final void will report to the Hunter River via surface pathways.	The water level in the final void was predicted using both the groundwater model (MODFLOW-SURFACT) and the water balance model (OPSIM). Both models predicted that the water level will equilibrate at least 17 m below the crest of the final void. Due to the significant freeboard, the final void is not expected to overflow.
Water stored in the final void will report to the Hunter River via underground pathways.	<p>As water levels in the final void recover, a hydraulic gradient towards the Hunter River will be established. This gradient will cause void water to migrate into the surrounding Permian coal measures, which ultimately provide seepage to the Hunter River alluvium.</p> <p>For the first 350 years after mining, the salinity of void water is predicted to be less than that of groundwater in the surrounding Permian coal measures. As such, there will be no increase in TDS during this period.</p> <p>After 350 years, the void water is expected to be more saline than groundwater in the surrounding Permian coal measures. The TDS in the Hunter River alluvium is predicted to increase by a maximum of 25 mg/L (4.3%). This will not alter the beneficial use category of the Hunter River alluvium.</p>

### 3.7 Air Quality

Dr Catherine Chicken, consultant veterinarian representing the equine industry on the Upper Hunter Air Quality Advisory Committee, Dr James Whelan from Environment Justice Australia and Dr Peter Stephenson engaged by Coolmore and Darley, presented at the Public Meeting.

The air quality impact assessment prepared by Anglo American's Consultant has been independently peer reviewed by Jacobs (the Department's consultant) and been confirmed to meet all NSW Government Policies and Guidelines. The air quality modelling presented in the EIS is also acknowledged by the NSW Environment Protection Authority (**EPA**) as being '*achievable and potentially even conservative!*'. The 2015 Review PAC acknowledged that the Project is consistent with applicable air quality standards.

Key issues raised by Dr Chicken, Dr Whelan and Dr Stephenson and responses are provided in the tables below.

Air Quality (Dr Catherine Chicken)	Project Impact / Response
<p>Submission describes Upper Hunter Monitoring Network and measurement of PM<sub>2.5</sub> and concern that this has deleterious health effects. It states that the "...process by which mines are being approved does not take into consideration the cumulative impact that one more mine will have".</p> <p>The submission further references an EPA predictive modelling exercise in 2014 which "showed that an annual average PM<sub>2.5</sub> ambient air quality standard of 8 µg/m<sup>3</sup> is unlikely to be met in Singleton and Muswellbrook".</p>	<p>With respect to the cumulative assessment this was completed in sections of the Air Quality Assessment (<b>AQA</b>) (Pacific Environment, 2015) (Appendix H of the EIS) as referenced below:</p> <ul style="list-style-type: none"> <li>Section 7.4 details the assumptions made regarding emissions from neighbouring mines and the assumptions made regarding background allowance for distant mines and other sources;</li> <li>Section 8.3 presents the results of the cumulative 24-hour average PM<sub>10</sub> assessment; and</li> <li>Sections 8.4.3, Section 8.4.5 and Section 8.4.7 present the results of the cumulative annual average concentration of PM<sub>10</sub>, total suspended particulate matter (<b>TSP</b>) and dust deposition respectively.</li> </ul> <p>Whilst the <i>NSW EPA Upper Hunter Particle Model</i> (Pacific Environment, 2014) does indicate the potential for an exceedance of the annual average PM<sub>2.5</sub> National Environment Protection (Ambient Air Quality) Measure (<b>Air NEPM</b>) standard at both Singleton and Muswellbrook, the main contribution to this was shown to be secondary and natural particle matter (greater than 40%), with a large contribution from wood smoke (approximately 15%). Emissions from coal mining operations were shown to contribute less than 15%. These modelling results are further supported by the data from the Upper Hunter Particle Characterisation Study (<b>UHPCS</b>) (OEH, 2013) which showed from the analysis of measured PM<sub>2.5</sub> concentrations that in Muswellbrook approximately 30% of the contribution is from wood smoke, and at both locations the combined contribution of secondary sulfate, industry aged sea salt and sea salt contribute over between 30% and 50%. Whilst the UHPCS did not identify a specific fingerprint</p>

Air Quality (Dr Catherine Chicken)	Project Impact / Response
	<p>for emissions from coal mining, the soil contribution, of which coal mining will be fraction, contributes less than 15%. The results of both these studies are being used by the EPA and OEH to manage particle emissions.</p> <p>Further, it does not appear to be appreciated that Drayton South is effectively a replacement mining area for the existing mine producing less coal per annum than the existing Drayton mine thus there will be an incremental decline in emissions from that which previously were generated from the Drayton mining complex.</p>
Air Quality (Dr James Whelan)	Project Impact / Response
<p>Particle pollution exposure leads to an increase in asthma, bronchitis, lung cancer, heart attack, respiratory symptoms, etc. It refers to the Hunter Valley air quality network and 5 years of data.</p> <p>The first figure represents the 'annual average PM<sub>10</sub> concentrations recorded 2012-15' (no source reference) and states that "...standard for annual average PM<sub>10</sub> concentrations is 25 µg/m<sup>3</sup>" and suggest this is "exceeded at all Hunter monitoring sites".</p> <p>The second figure shows 24 hour PM<sub>10</sub> concentration and notes "Camberwell was 104.8 µg/m<sup>3</sup> – more than double the national standard of 50 µg/m<sup>3</sup>.</p> <p>The third figure shows the number of exceedances of national PM<sub>10</sub> standard 2012-15. It states that "the national standard of PM<sub>10</sub> concentrations is 50 µg/m<sup>3</sup>, not to be exceeded more than 5 times per annum.</p>	<p>The AQA has been completed in accordance with the <i>NSW EPA Approved Methods for Modelling and Assessment of Air Pollutants in NSW</i> (NSW DEC, 2005) (<b>Approved Methods</b>) which requires comparison of the predicted cumulative concentrations with the impact assessment criteria detailed therein. The impact assessment criteria for annual average PM<sub>10</sub> is 30 µg/m<sup>3</sup>, not 25 µg/m<sup>3</sup> as stated in the submission.</p> <p>A review of the first figure provided in the presentation therefore shows that the impact assessment criteria for annual average PM<sub>10</sub> has not been exceeded at any location in any of the years. It is noted that the Upper Hunter Air Quality Monitoring Network designates the monitoring stations as one of four categories:</p> <ul style="list-style-type: none"> <li>• larger population centres;</li> <li>• smaller communities;</li> <li>• diagnostic station; and</li> <li>• background station.</li> </ul> <p>NSW EPA (2013) states that "...only those sites designated as large populations centres monitors should be compared to the Air NEPM standards....". Camberwell is designated as a <i>smaller community station</i> and thus data from this should not be compared to the Air NEPM standards.</p> <p>When considering the maximum 24-hour average concentrations presented in the second and third</p>

Air Quality (Dr James Whelan)	Project Impact / Response
Particle pollution levels exceed 50 µg/3 at all ... sites each year".	<p>figures, it is important to note that the majority of exceedances of the criteria are as the result of natural events, such as drought, high wind events, bushfires or dust storms.</p> <p>When considering the second and third figures, the following observations are made:</p> <ul style="list-style-type: none"> <li>• 2012 – the report by the EPA '<i>Hunter Valley Annual Air Quality 2012</i>' (OEH, 2013) notes that "<i>the second half of 2012 saw below average rainfall during September and October across most of NSW, including the Hunter. Periods of stronger winds during September and October combined with these drier conditions led to increased fine particles in the region. All of the days when levels above the PM<sub>10</sub> standard were recorded at large population centres occurred during this period.</i>"</li> <li>• 2013 - OEH '<i>New South Wales Air Quality Statement 2013</i>' states, "<i>Compared with previous years, NSW experienced poor air quality during 2013, due mainly due to drier and hotter weather through the middle of the year and the impacts of bushfires in September, October and November</i>". OEH also states: "<i>Warm, dry and windy conditions in September and October led to severe early season bushfire activity in western Sydney, the Blue Mountains, Wollondilly and the Hunter Valley</i>" and "<i>Air quality in the Hunter was also affected by increased bushfire activity in January and September – November</i>". All of the days when levels above the PM<sub>10</sub> standard were recorded at large population centres occurred during this period.</li> <li>• 2014 - the OEH '<i>New South Wales Air Quality Statement 2014</i>' observed that whilst 2014 was the warmest year on record, particle levels met the Air NEPM standard at all large population centres (except Wagga Wagga) and that a large dust storm on 17 December contributed to some of the elevated levels.</li> <li>• 2015 – all the maximum 24-hour average concentrations were recorded on 6 May 2015.</li> </ul>

Air Quality (Dr James Whelan)	Project Impact / Response
	<p>As noted in the 'NSW OEH New South Wales Air Quality Statement 2015', this was as the results of a dust storm that occurred on this day. At the large population centres of Singleton and Muswellbrook, there were less than five days over the Air NEPM standard during the year.</p>
<p>The submission states that "Annual average PM<sub>10</sub> concentrations already exceed the least stringent standard being considered by Australian Environment Ministers. The criterion for assessment (30 µg/m<sup>3</sup>) is not a national standard." It further suggests that Woodland, Coolmore and Hollydeen Estate are 'sensitive receptors'.</p>	<p>A review of the table provided (Table 4 of the presentation) shows this statement is incorrect. As noted above, the AQA has been completed in accordance with Approved Methods. The impact assessment criteria for annual average PM<sub>10</sub> is 30 µg/m<sup>3</sup>, not 25 µg/m<sup>3</sup> as stated in the submission.</p> <p>The criteria for column 2 is 50 µg/m<sup>3</sup>. The highest predicted result is at receiver 145D at 27 µg/m<sup>3</sup> (excluding property 60, which is owned by Anglo American).</p> <p>The criteria in column 3 is 30 µg/m<sup>3</sup> (and the submission incorrectly suggests 25 µg/m<sup>3</sup> is the correct criteria). Either way, all predicted impacts for PM<sub>10</sub> annual average are below 24 µg/m<sup>3</sup> (excluding property 60).</p> <p>There are no private receptors predicted to exceed the annual average criteria on a cumulative basis. That is, when including emissions from all neighbouring mines and others sources.</p> <p>Sensitive receptors are defined by the EPA as "<i>A location where people are likely to work or reside; this may include a dwelling, school, hospital, office or public recreational area. An air quality impact assessment should also consider the location of known or likely future sensitive receptors.</i>" (NSW DEC, 2005).</p> <p>All sensitive receptors are appropriately considered in the assessment.</p>
<p>Exposure to particle pollution from coal mining imposes a \$47 million burden on Singleton and \$18 million on Muswellbrook each year (Climate and Health Alliance, 2015).</p> <p>Coal mining contributes 87.5% of</p>	<p>The values quoted from the Climate and Health Alliance report are based on emissions of fine particles from combustion of coal in the power stations NOT the extraction of coal during mining (Climate and Health Alliance, 2015, p 3).</p> <p>Whilst the EPA Emission Inventory for the Greater Metropolitan Region showed that coal mining</p>

Air Quality  (Dr James Whelan)	Project Impact / Response
PM <sub>10</sub> and 66% of the Hunters' PM <sub>2.5</sub> (Senate Inquiry into the Health Effects of Air Quality, 2013).	<p>contributes a high proportion of total emissions, it is how these emissions disperse and the concentration of pollutants at receptors that determines the potential for health effects. As detailed in the AQA, there are no residences predicted to exceed the annual average impact assessment criterion and the only predicted exceedances of the 24-hour average concentrations occur when the existing background is already elevated. Section 12.4 of the AQA discusses the implantation of a meteorological forecasting system that would be used as part of the real-time monitoring and proactive dust management system. This system would predict meteorological conditions for the coming day to determine, one day in advance, where the risk of dust emissions may occur (e.g. based on wind speed, direction, rainfall and atmospheric stability).</p> <p>The predictive meteorological forecasting system would work in conjunction with the real-time monitoring and proactive dust management system, providing an alert for the appropriate personnel to review the real-time data and manage the intensity of activities for that day, increase controls or limit activity to various areas of the site. This is an example of how adaptive management can be used to ensure there are no impacts on the surrounding receivers.</p>

Air Quality  (Dr Peter Stephenson)	Project Impact / Response
The submission suggests that the Upper Hunter Region is at a critical point where any further contribution would be significant (i.e. that PM <sub>2.5</sub> , PM <sub>10</sub> and depositional dust at Drayton mine are already exceeded). It suggests that cumulative impacts were overlooked (i.e. that background has not been incorporated. It further asserts that DP&E did not address these issues.	<p>This statement is incorrect.</p> <p>Section 7.4 of the AQA (Appendix H of the EIS) details the assumptions made regarding emissions from neighbouring mines and the assumptions made regarding background allowance for distant mines and other sources.</p> <p>Section 8.3 presents the results of the cumulative 24-hour average PM<sub>10</sub> assessment.</p> <p>Sections 8.4.3, Section 8.4.5 and Section 8.4.7 present the results of the cumulative annual average concentration of PM<sub>10</sub>, TSP and dust deposition respectively.</p>

Air Quality  (Dr Peter Stephenson)	Project Impact / Response
<p>The submission notes site D9 exceeds dust limits and was not used in the EIS. Suggest it is in a "...similar location and wind direction of studs to Drayton South".</p> <p>The submission suggests that dust control is overstated, significant water required to meet suppression assumptions, and background ignored which represents an underestimation in the assessment. It provides an example of adding PM<sub>10</sub> background of 25 µg/m<sup>3</sup> to the predictions at locations near the studs, the daily criteria of 50 and annual criteria of 25 µg/m<sup>3</sup> would be exceeded.</p>	<p>The impact assessment criteria for dust disposition is an annual average of monthly data (see Table 7.1 of the Approved Methods). Therefore a single month above 4.0 g/m<sup>2</sup>/month does not represent an exceedance of the criteria.</p> <p>D9 is located immediately south of the existing pit adjacent the highwall on Anglo American owned land and as such is heavily influenced by mining operations. As detailed 7.4.2 of the AQA, the determination of background levels is to account for sources not explicitly modelled. As all the neighbouring mines were included in the dispersion modelling, it is not considered valid to include data from a site that is relatively close to existing mining operations and would therefore provide an overly conservative and unrealistic estimate of non-mining sources.</p> <p>The approach taken in the application of dust controls is consistent with the approach taken in all similar AQAs.</p> <p>Anglo American will implement the management and mitigation commitments relating to air quality controls, as outlined in Section 7.3.4 of the EIS. Drayton's past performance in relation to dust management provides a good example with no exceedances of off-site amenity limits over the last 15 years. This demonstrates the proactive approach by Anglo American to manage operations on 'dusty' days to reduce dust contribution and impact.</p> <p>As detailed in the response above, a detailed cumulative assessment was completed which included modelling of emissions from all neighbouring mines plus allowance for contribution from distant mines and other sources.</p>
<p>There is "Significant uncertainty in predicting cumulative 24 hour average GLC". Total dust impacts are based on fixed ratio of TSP to PM<sub>10</sub> which may not reflect actual dust mix particularly size and conditions. As such, the submission contends that "Model predictions are compromised and may significantly underestimate</p>	<p>It is apparent from the PM<sub>10</sub> data presented in Figure 4-3 of the AQA that there is significant variability in 24-hour average concentrations. This in turn results in uncertainty in predicting the cumulative 24-hour average concentrations as they are compounded by the day-to-day variability in ambient dust levels and the spatial and temporal variation in any other anthropogenic activity (e.g. meteorological conditions, agricultural activity, bushfires etc.), including mining in the future.</p>

Air Quality (Dr Peter Stephenson)	Project Impact / Response
air quality impacts".	<p>Empirical data illustrates that the worst case 24-hour average PM<sub>10</sub> concentrations are often strongly influenced by other sources, such as bushfires and dust storms, which are essentially unpredictable. It is however relatively easy to manage the actual emissions from mining operations as the identified risks from the Project would be managed by the proposed predictive/pro-active mitigation and management system. As detailed in Section 12.4 of the AQA, a meteorological forecasting system would be used as part of the real-time monitoring and proactive dust management system. This system would predict meteorological conditions for the coming day to determine, one day in advance, where the risk of dust emissions may occur (e.g. based on wind speed, direction, rainfall and atmospheric stability). This technology is used extensively throughout the Hunter Valley and has been demonstrated to be very effective.</p> <p>The predictive meteorological forecasting system proposed would work in conjunction with the real-time monitoring and proactive dust management system, providing an alert for the appropriate personnel to review the real-time data and manage the intensity of activities for that day, increase controls or limit specific activities in various areas of the site.</p>
A summary of environment protection licence non compliances relating to air quality were provided.	<p>As detailed in Appendix B of the 2016 Response, there were 41 non-conformances for air quality related incidents. These incidents are, without exception, related to non-compliances for air quality sampling procedures and practice. These were often due to vandalism of monitoring equipment.</p> <p>Drayton mine took approximately 9,000 air quality samples over the 15 year period. Sampling non-compliances represent 0.46% of total samples over this time.</p> <p>Anglo American acknowledges incidents that could result in environmental impacts are not acceptable.</p> <p>Procedures are in place to ensure that in the event an incident occurs, a prompt response is taken to minimise the severity of any potential harm. Procedures are also established to ensure incidents are investigated and additional effective controls implemented.</p>

Air Quality (Dr Peter Stephenson)	Project Impact / Response
	<p>Through the maintenance of Anglo American's ISO14001 certification, independent, third party audits are conducted annually to ensure there are actions towards continual improvement in the Environmental Management System.</p> <p>Once operational, Drayton South will be re-certified to ISO14001.</p> <p>In addition to self-inspection programs and third party audit processes, regular inspections are conducted by Government Agency officials to ensure compliance with licence conditions is maintained to their satisfaction. In addition independent third party compliance audits of the development will be undertaken in accordance with the conditions of consent.</p>

### 3.8 Noise & Blasting

Frank Butera, an Acoustics Engineer with ARUP, presented at the Public Meeting. Mr Butera reviewed the noise assessment by Bridges Acoustics. The publicly available resume of Mr Butera indicates 20 years' experience in engineering and urban noise assessments. It indicates experience with only one mining project in South Australia (a different jurisdiction). Conversely, it is noted that Mark Bridges (Principal, Bridges Acoustics) has completed over 120 noise impact statements including approximately 25 noise impact statements for new and modified open cut mine developments and over 200 other environmental noise assessments in the mining, industrial, commercial, domestic, utilities and services sectors primarily in NSW over a period of more than 21 years.

In relation to the Bridges Acoustics Noise Assessment, the relevant NSW authority for noise and vibration impacts, the EPA, advised in their submission dated 26 June 2015, "*criteria for operational mine noise were developed in general accordance with the Industrial Noise Policy*" and "*operational criteria will not be exceeded, except where already exceeded by the approved Drayton Coal Mine.*"

Mr Butera has far less relevant experience than Bridges Acoustics and the EPA and as such, the unsubstantiated opinions of this presenter should be disregarded by this PAC.

Key issues raised by Mr Butera and responses are provided in the table below.

Noise and Blasting (Frank Butera)	Project Impact / Response
Noise source data plots are incomplete and there is inadequate information to support the findings.  EIS does not provide	<p>The relevant authority for noise and vibration impacts, the EPA, is satisfied with the level of detail within the assessment.</p> <p>The EPA advises in Attachment 2 of their submission, "<i>criteria for operational noise were developed in general</i></p>

Noise and Blasting  (Frank Butera)	Project Impact / Response
<p>"...confidence or transparency" expected when assessed against best practice methodologies or procedures.</p>	<p><i>accordance with the Industrial Noise Policy</i>".</p> <p>The Industrial Noise Policy (<b>INP</b>) is considered current best practice for assessing noise from industrial noise sources in NSW.</p>
<p>EIS demonstrates that the INP will be exceeded and that the noise and blast vibration modelling has not been validated for local conditions.</p>	<p>The noise exceedance identified within the EIS relates only to receptors located within the area of Antiene located to the north of the existing Drayton mine which is remote from Coolmore stud farm and Darley Woodlands broodmare farm. Mitigation and management arrangements are in place with these receptors, none of which have objected to the Project.</p> <p>With regard to the validation of noise and vibration emissions from blasting, Drayton mine has been operating for 33 years. There are few mines in Australia that have more experience with 'local conditions' than Anglo American at Drayton mine.</p>
<p>The proposed development consent does not assess the impact of blasting to humans or horses and limits are not adequate.</p> <p>Blasting limits specified in Development Consent have not changed.</p> <p>Suggests there is a high risk that blasting will significantly impacts operations at Coolmore and Darley.</p>	<p>The submission offers no evidence of apparent high risk of impact. In her peer review of the Equine Health Impact Assessment contained in the EIS, Dr Deborah Racklyeft whom between 1990 and 2012 was a partner at the Satur Veterinary Clinic at Scone in the Upper Hunter Valley not once was presented a thoroughbred suffering an injury allegedly caused by mine blasting impact. Mine blasting occurs within 100m of thoroughbred horses at the highly successful award winning Edinglassie broodmare farm without incident.</p> <p>Retractions to the mine plan and other modifications to the Project have minimised any potential impacts to humans or horses from blasting effects.</p> <p>Coolmore cover sheds are actually 4.6km away from the southern extent of the Project. Any potential blasting impacts (when mining operations are on the southern boundary) will be barely discernible at this distance. Darley Woodlands is a broodmare farm.</p> <p>Noise from blasting will, at worst be perceived as a distant rumbling similar to distant thunder at the Coolmore stud farm and Darley Woodlands broodmare farm.</p> <p>There is no need for blasting limits to change as there will be no impact. The EPA confirms in their submission, "<i>Blasting ...can meet ANZEC criteria at all privately owned residences and heritage structures.</i>"</p> <p>EPA also states "<i>the mitigation measures for blasting</i></p>

Noise and Blasting (Frank Butera)	Project Impact / Response
	<p><i>proposed ... are appropriate."</i></p> <p>The Department has proposed the establishment of a consultative committee in the conditions of consent focussed purely on Coolmore, Darley Woodlands and the proponent, with an independent chair. If there is any dispute about management measures, this will be referred to the Secretary for final resolution.</p>
The developer of ENM software no longer supports or maintains the software.	<p>It is correct that ENM software is no longer supported or maintained and its author has retired, however that does not reduce its accuracy or usefulness. The more modern noise model packages offer improved graphics etc., which ENM software users can replace with other packages such as Surfer or AutoCad, but in general do not offer increased accuracy. In fact, the majority of recent noise assessments completed using modern noise model software such as CadnaA or Soundplan are based on the CONCAWE algorithm which predates the ENM software algorithms. At the time ENM software was written, it was acknowledged to be superior to CONCAWE.</p> <p>Again, the EPA has endorsed the methodology used for the Acoustics Impact Assessment.</p>

### 3.9 Soils

Dr Pam Hazelton presents as a highly credentialed soil scientist, however it would appear that Dr Hazelton has had little experience with the fundamentals of the processes involved in open cut coal mining as specifically regulated in NSW.

A Soil and Land Capability Impact Assessment was prepared for the Project by Environmental Earth Sciences NSW. They relied upon the relevant NSW Government specified guidelines to conduct their study. These guidelines are listed in Section 2 of their report.

Key issues raised by Dr Hazelton and responses are provided in the table below.

Soils (Dr Pam Hazelton)	Project Impact / Response
Sodic soils at the site disperse on rain impact resulting in dispersed clay which forms a floc which will be conveyed to the Hunter River and will degrade the water quality and smother aquatic ecosystems.	<p>Runoff from disturbed areas at mine sites in NSW are required to be captured and treated in sediment and erosion control structures as specified in the Government Guideline: <i>Managing Urban Stormwater, Soils and Construction, Mines and Quarries (DECC, 2008)</i>: as such there will be no degradation of the Hunter River as a consequence of the Project.</p> <p>Further, the Surface Water Impact Assessment</p>

Soils (Dr Pam Hazelton)	Project Impact / Response
	(Appendix Q of the EIS) conducted over the Project concluded that the Project will not impact on receiving waters, including the Hunter River. This assessment has been endorsed by the relevant NSW regulatory authorities.
<p>Exposure and erosion of saline soil will export salt to the Hunter River.</p> <p>Use of the topsoil and saline sodic subsoil to recreate Endangered Ecological Communities (<b>EECs</b>) is highly problematic and non-salt tolerant plants will not establish.</p> <p>These issues have been ignored in the DP&amp;E report.</p>	<p>An extensive soil survey involving the analysis of 37 soil profiles has confirmed that there will be sufficient topsoil of a suitable quality to ensure the success of future mine site rehabilitation works (refer to Section 4.4.2 of the RTS).</p> <p>In fact, calculations indicate that there will be a surplus of high quality topsoil available for rehabilitation purposes. The use of 'saline soil' and 'saline sodic subsoil' will not be required as establishment medium for the rehabilitation process.</p> <p>All rehabilitation activities will be undertaken in accordance with an approved Rehabilitation and Offsets Management Plan which will be prepared in consultation with the relevant regulatory authorities.</p> <p>The results of rehabilitation activities, including the re-establishment of EECs, will be publicly reported each year in the Annual Review.</p>

### 3.10 BSAL

SLR Consulting Australia Pty Ltd (**SLR**) undertook a BSAL Site Verification Assessment for the Project in November 2014 and issued a report in April 2015 (**BSAL SVA**). The report was prepared in accordance with the *Interim Protocol for Site Verification and Mapping of Biophysical Strategic Agricultural Land (Interim Protocol)* (OEH and Department of Primary Industries - Office of Agricultural Sustainability and Food Security (**DPI-OASFS**), 2013)). Both OEH and DPI-OASFS were regularly consulted throughout the preparation of the report.

The BSAL SVA determined that 78.8 ha of land could be verified as BSAL within the Study Area with the remaining 1,037.8 ha verified as non BSAL in accordance with the Interim Protocol.

Dr Peter Bacon presented at the Public Meeting questioning the Site Verification process undertaken over the Project. The OEH, DPI-OASFS and ultimately the Gateway Panel have accepted the highly credentialed work that has been undertaken to verify BSAL impacts.

Key issues raised by Dr Bacon and responses are provided in the table below.

BSAL Impacts  (Dr Peter Bacon)	Project Impact / Response
<p>From 218 ha of 'verified' BSAL in the Gateway application, by May 2015 only 78 ha remained. BSAL later reduced to zero "...on the basis of field inspection and attributes such as flooding which are not BSAL criteria".</p>	<p>The SRLUP defines BSAL as land with high quality soil and water resources capable of sustaining high levels of productivity requiring minimal management practices to maintain this high quality.</p> <p>SLR has confirmed in their BSAL SVA that there is 78.8 ha of land verified as BSAL within the Study Area with the remaining 1,037.8 ha verified as non BSAL.</p> <p>During a site visit with the Gateway Panel Chair and members on the 16 February 2015 and DPI-OASFS on 24 June 2015, the 78.8 ha of land identified as technically conforming to the BSAL criteria was observed to exhibit significant erosion and waterlogging problems. As such it was confirmed not suitable for cropping. Despite its theoretical classification as BSAL this area is only suitable as low intensity grazing land. It is noted that it has historically been used for low intensity grazing.</p> <p>The Environmental Earth Sciences <i>NSW Soil and Land Capability Impact Assessment</i> and the BSAL SVA also confirmed the 78.8 ha of BSAL is not capable of sustaining high levels of productivity and would require significant management measures to maintain even its current use as low intensity grazing land.</p> <p>Anglo American is committed to developing and maintaining an Agricultural Reserve (approximately 2,700 ha) to mitigate impacts on agricultural values including the removal of this BSAL land and the low intensity grazing that it currently supports (refer to Section 4.4.1 of the RTS).</p> <p>The 78.8 ha of identified BSAL (confirmed only suitable for low intensity grazing) proposed to be removed equates to 3% of the 2,700 ha area proposed to be improved and maintained in the Agricultural Reserve.</p> <p>An Agricultural Land Use Strategy has been prepared to maintain and improve the Project's Agricultural Reserve (see Appendix E of the RTS).</p>
<p>Figures show land class mapping onsite and suggests that 253 ha of croppable land is partly BSAL.</p>	<p>There is no regularly cropped land within the Project Disturbance Boundary. The 78.8 ha of land identified as technically conforming to the BSAL criteria exhibits significant erosion and waterlogging problems and is not suitable for cropping.</p> <p>This area is only suitable as low intensity grazing land, as confirmed by the BSAL SVA, the Soil &amp; Land Capability</p>

BSAL Impacts (Dr Peter Bacon)	Project Impact / Response
	Assessment conducted by Environmental Earth Sciences NSW and at site visits undertaken by the Gateway Panel & DPI-OASFS.

### 3.11 Aboriginal Archaeology and Cultural Heritage

Dr Tim Owen from GML Heritage and two presenters representing Registered Aboriginal Parties (**RAPs**) - Scott Franks (Tocomwall Cultural Heritage Consultants (previously Yarrawalk) & Claimant of the Plains Clan of the Wonnaruwa) and Kevin Taggart (Wonnaruwa Nation Aboriginal Corporation) presented at the Public Meeting. No written submissions have been made available to the proponent.

Key issues raised Dr Owen and RAPs and responses are provided in the tables below.

Aboriginal Archaeology and Cultural Heritage (Dr Tim Owen)	Project Impact / Response
EIS has not adhered to relevant OEH Guidelines for Aboriginal consultation. "The extent of known Aboriginal cultural heritage values has not been identified mapped or assessed during the EIS process."	<p>Aboriginal community consultation for the Project was conducted in accordance with the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW, 2010).</p> <p>Details regarding the extensive consultation effort undertaken over the Project are described in the Aboriginal Archaeological and Cultural Heritage Impact Assessment (Appendix O of the EIS).</p> <p>The adequacy of the Project's Aboriginal Heritage Assessment is supported by the submission received from the OEH who state that "<i>the Aboriginal Cultural Heritage Assessment has been undertaken in accordance with OEH's Aboriginal cultural heritage assessment requirements</i>".</p> <p>At the time none of the registered Aboriginal parties objected to the findings of the assessment or management measures proposed, with two groups confirming in writing their support.</p>
PAC recommendation 7 has been ignored...  PAC recommendation states " <i>within areas of significant open cut activity, strategic consideration of Aboriginal cultural heritage landscapes and places is needed, to consider cumulative landscape changes and</i>	<p><i>The FAR states "the Office Of Environment and Heritage and the Department were satisfied with the assessment and the measures proposed to avoid, salvage, protect and build...The Department is unaware of any matter relating to Aboriginal Heritage which stands in the way of approval of the Drayton South Project."</i></p> <p><i>The Secretary's EAR also confirms that "a Cultural Heritage Impact Assessment was completed for the Project in accordance with all relevant guidelines."</i></p>

Aboriginal Archaeology and Cultural Heritage  (Dr Tim Owen)	Project Impact / Response
<p><i>impacts and identify areas of protection. This should provide more comprehensive consideration of the significance of Aboriginal Heritage Cultural values, not only the physical artifacts that have tended to form the basis of mining assessments, but also the wider cultural landscape connections and the interplay between these elements.</i></p>	<p>As outlined in Section 4.9.1 of the RTS, the submission from OEH notes that "<i>the proponent is committed to updating the existing Aboriginal Cultural Heritage Management Plan for the project area to incorporate the additional strategies developed to manage the likely impact on Aboriginal cultural heritage values associated with this project.</i>"</p> <p>The Secretary's EAR has confirmed that "<i>a Cultural Heritage Impact Assessment was completed for the Project in accordance with all relevant guidelines.</i>" It goes on to state that "<i>OEH and the Department were satisfied with the assessment and the measures proposed by Anglo to avoid, salvage, protect and build on the existing cultural knowledge of Aboriginal Heritage on the site</i>".</p> <p>It is noted that the sensitive cultural heritage features in proximity to the Project such as Mt Arthur, Saddlers Creek and the surrounding ridgelines will not be directly impacted by the Project. Further, the Project has been redesigned to avoid any impact to the only identified quarry site (DS-QR1-11) in proximity.</p> <p>Anglo American will update its existing Aboriginal Cultural Heritage Management Plan (<b>ACHMP</b>) for the Project in accordance with the latest guidelines and in consultation with all registered aboriginal parties and the relevant regulators.</p>

Aboriginal Archaeology and Cultural Heritage  (RAPs)	Project Impact / Response
<p>Inadequate consultation</p>	<p>Aboriginal community consultation has been conducted in accordance with the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW, 2010).</p> <p>As outlined in Section 5.4 of the EIS, consultation has been conducted as follows.</p> <p><u>Current application</u></p> <ul style="list-style-type: none"> <li>• Letter to 25 RAPs (including both speakers at the 2014 Determination PAC public meeting) with Project update and provision of revised draft Aboriginal Archaeological and Cultural Heritage Impact Assessment Report for the reduced Project footprint (20 February 2015)</li> </ul>

Aboriginal Archaeology and Cultural Heritage (RAPs)	Project Impact / Response
	<ul style="list-style-type: none"> <li>• Draft Aboriginal Archaeological and Cultural Heritage Impact Assessment for review and comment (23 February to 23 March 2015)</li> <li>• Drayton South Stakeholder Update Newsletter (March 2015)</li> </ul> <p><u>Previous application</u></p> <ul style="list-style-type: none"> <li>• Public notice advertised in the Singleton Argus and Muswellbrook Chronicle (4 March 2011)</li> <li>• Planning meeting (8 April 2011)</li> <li>• Field assessment (2 May to 4 June and 10 to 11 October 2011)</li> <li>• Field assessment summary (2 May to 4 June 2011)</li> <li>• Close out meeting (10 June 2011)</li> <li>• Cultural heritage exchange sessions</li> <li>• Wonnaruwa Nation Aboriginal Corporation (18 August 2011)</li> <li>• Upper Hunter Wonnaruwa Council Inc. (18 August 2011)</li> <li>• Draft Aboriginal Cultural Impact Assessment issued to RAPs (1 February 2012)</li> <li>• Draft Aboriginal Cultural Heritage Impact Assessment reviews (1 to 29 February 2012)</li> <li>• Project newsletters (April and October 2011, November 2012)</li> <li>• Draft ACHMP provided to RAPs for review and comment (18 November to 16 December 2013)</li> <li>• Comments provided by RAPs on draft ACHMP (December 2013)</li> </ul>
Aboriginal Archaeology and Cultural Heritage	It is noted that there have been no specifically identified cultural features within the mine disturbance boundary to date. Both a potential quarry area adjacent the proposed Edderton Road relocation, Mt Arthur and parts of Saddlers Creek have been identified as such. None of these areas will be disturbed as a consequence of the Project. In fact ecological and other environmental enhancements are proposed to be conducted by the proponent along those

Aboriginal Archaeology and Cultural Heritage (RAPs)	Project Impact / Response
	<p>sections of Saddlers Creek on Anglo American owned land in consultation with the RAPs and the Local Lands Services.</p> <p>When the ACHMP is updated, values attached to any surrounding identified cultural features will be further documented in relation to their regional context.</p> <p>This work will be undertaken and implemented post approval, in consultation with the RAPs and relevant agencies.</p>

### 3.12 Non-Aboriginal Heritage

Sharon Veale from GML Heritage presented at the Public Meeting.

Key issues raised Ms Veale and responses are provided in the table below.

Non-Aboriginal Heritage (Sharon Veale)	Project Impact / Response
<p>Upper Hunter Valley is a significant historical landscape.</p> <p>Previous PACs formed the view that the area may warrant heritage listing... as there is a National Trust listing for the Muswellbrook Jerrys Plains area that dates from 1984.</p>	<p>Approximately 0.5% of the total area of the non-statutory listed Muswellbrook-Jerrys Plains Landscape Conservation Area (<b>MJPLCA</b>) will be directly impacted by the Project (Section 7.17.3 of the EIS).</p> <p>The impacted portion of the MJPLCA is not directly associated with any of the key features identified in the listing as having social or aesthetic values.</p> <p>The significance of the historical landscape has been recognised and the reduced disturbance footprint of the Project, which now sits behind natural ridgelines, ensures the Project is not visible from the south and south-east where the key values of the MJPLCA have been identified.</p> <p>Management recommendations provided within the listing recommend '<i>Open cut mining of the alluvial river flats should not be permitted...</i>'. There will be no mining on alluvial flats.</p> <p>The Non-Aboriginal Heritage Impact Assessment considered the heritage listing of identified items, including those listed by the National Trust, at the time of writing the report (March 2015).</p> <p>If the heritage listing of any item is revised in the future to a State or National listing, the Heritage Management Plan will be updated as appropriate, in consultation with the relevant agencies.</p>

Non-Aboriginal Heritage  (Sharon Veale)	Project Impact / Response
<p>Non-Aboriginal cultural values have not been adequately considered as no comprehensive and holistic assessment regarding the cultural heritage significance of the Upper Hunter landscape has been prepared as required by the SEARs.</p> <p>DP&amp;E suggests "...that the project may proceed subject to a Heritage Management Plan being prepared. This is contrary to professional heritage practice...".</p>	<p>A Non-Aboriginal Heritage Impact Assessment was undertaken by AECOM Australia (Appendix P of the EIS) to address the SEARs which requires "<i>an assessment of the likely impacts of the development on non-Aboriginal heritage, paying particular attention to its settlement by Europeans and pastoral history...</i>". The impact assessment represents a comprehensive assessment which addresses this requirement.</p> <p>The preparation of a Heritage Management Plan, in consultation with appropriate regulators is a standard requirement to manage items of heritage significance and mitigate impacts resulting from mining and industrial projects. It is unclear as to why the author believes "<i>this is contrary to professional heritage practice.</i>"</p>

### 3.13 Project Economics

Coolmore and Darley have commissioned a number of people to provide comment on the economic analyses of the Project, including Rod Carr, Dr Phillip Williams and Michael White. However, none of these reports has been peer reviewed and the findings are at odds with those of:

- Gillespie Economics (2015), which was independently peer reviewed by both BDA Group and Deloitte Access Economics; and
- Houston Expert Report, which was independently peer reviewed by Professor Jeff Bennett, Australian National University.

The Department also asked Professor Bennett to conduct a peer review of the Marsden Jacob Associates benefit cost assessment which is summarised in the FAR (p 17-19). Professor Bennett concludes that the benefits of the Project will exceed its costs and would generate a net social benefit to the community.

DRE also supports the Project on resource utilisation and economic grounds.

Key issues raised Mr Carr, Dr Williams and Mr White and responses are provided in the tables below.

Economics (Rod Carr)	Project Impact / Response
When the economic analysis is re-estimated by Rod Carr the Drayton South coal mine results in a net social loss of at least \$75 million.	<p>The "re-estimation" is flawed, unsubstantiated and has not been peer reviewed. Each "re-estimation" assumption is addressed below.</p>
The value of coal is overestimated by \$413 million present value	<p>This is incorrect. Prices used in the Economic Assessment were based on average of the December 2014 Consensus Pricing forecasts from 21 financial institutions i.e. USD72/t in 2016, USD82/t in 2017 and USD87/t thereafter, together with an AUD/USD exchange rate of 0.85.</p> <p>Rod Carr's contention that the value of coal is overestimated is based on a typographical error in the original Economic Assessment (page 25) contained in the EIS where a price from the Consensus Pricing is mistakenly referred to as in AUD terms instead of USD terms. This was corrected in the RTS. Despite the typographical error, all modelling over the Project correctly uses the Consensus Pricing from 21 financial institutions which was in USD/t.</p> <p>In addition, the Economic Assessment undertakes wide ranging sensitivity testing on the assumed price of coal (+ and - 20%) and found that under all scenarios examined, the Project has net social benefits to Australia and NSW.</p> <p>The Department in its FAR considers that the price assumptions made by Anglo American over the life of the Project <i>"are reasonable and in line with international forecasts"</i>.</p> <p>The Department identifies that the NSW Trade &amp; Investment forecasts the medium to long term export thermal coal price higher than that used in the Economic Assessment.</p> <p>The October 2016 average price for Australian thermal coal was USD93.2 (World Bank Commodities Price Data (the Pink Sheet) 2 November 2016), well above the coal price assumed in the Economic Analysis.</p>
Capital costs of the Project are underestimated by \$70 million present value	<p>This is incorrect. It is based on a spurious comparison to the capital costs of the original project. However, the Project assessed in the 2016 Economic Assessment is a different Project in scale and scope to the original proposal. The revised capital costs reflect the pressures for cost savings, given the smaller project.</p> <p>Notwithstanding this, capital costs have little relevance to the estimation of the net benefits of the Project to NSW, as</p>

Economics (Rod Carr)	Project Impact / Response
	these primarily relate to royalties which are unaffected by changes in capital cost assumptions.
Travel time externalities underestimated by \$5 million present value	These were discussed qualitatively in the original Economic Analysis but were subsequently quantified by Gillespie Economics in the response to the peer review by Deloitte Access Economics. As identified in the original Economic Analysis these impacts do not have a material impact on the estimated net benefits of the Project.
Aboriginal heritage impacts are underestimated by \$45 million present value.	<p>An investigation of nonmarket valuation studies for Aboriginal heritage sites has shown that unmitigated impacts on Aboriginal heritage sites in some instances reduces the well-being of the broader community (Gillespie Economic 2009a, 2009b, 2010) while in other instances there may be no impact or a positive impact on the community's well-being (Windle and Rolfe 2003).</p> <p>Given that impacts from the Project on Aboriginal heritage will not be unmitigated (but managed through the revision and implementation of the Drayton mine ACHMP) and the direction of impact on community well-being is uncertain, Aboriginal heritage impacts remain unquantified in the Economic Assessment.</p> <p>Rather than placing a spurious dollar value on mitigated Aboriginal heritage impacts (as suggested by Rod Carr), these impacts are left to the decision-maker to consider within a threshold value framework i.e. are the unquantified Aboriginal heritage impacts, after mitigation, likely to be greater than the estimated net social benefits of the Project to Australia i.e. between \$329 million and \$475 million present value, or NSW i.e. between \$242 million to \$388 million, present value.</p>
The size of the resource at Drayton South may be overestimated by 35%	This view is based on a spurious analysis of production at the Drayton mine compared to the production schedule provided in the 2007 Environmental Assessment. The resource estimate for Drayton South underpins Anglo Americans fiduciary advisory responsibilities to its shareholders. It is an accurate reflection of the size of the coal resource available under the Project. The Economic Analysis was based on a production schedule less than the maximum for which approval is being sought. Sensitivity analysis was undertaken for the equivalent of a 20% reduction in the production levels over the life of the Project.
Rehabilitation and	The estimated decommissioning costs of the Mine used in

Economics (Rod Carr)	Project Impact / Response
decommissioning costs have increased to \$66 million since the 2012 Economic Assessment and hence the avoided decommissioning costs in 2015 from the Project have increased by around \$20 million present value.	<p>2012 Economic Assessment represented the best available estimate at the time, as did the estimated decommissioning costs of the Mine included in the 2016 Economic Assessment. As identified above, the estimated decommissioning costs included in the 2016 Economic Assessment accord with the level of the actual rehabilitation bond Anglo American has lodged by bank guarantee i.e. \$62 million.</p> <p>As evident on site the rehabilitation of Drayton Mine is now well advanced and in fact due to the utilisation of the Dragline for bulk earthworks is currently well under budget.</p>
Exclusion of other externalities - greenhouse gas emissions have been incorrectly valued and a calculation error has been made	<p>This is incorrect. The Economic Assessment has included the social damage cost to Australia and NSW of scope 1 and scope 2 emissions from the Project. This is consistent with the National and NSW focus of the benefit cost analysis and the treatment of production benefits from the Project i.e. production benefits that accrue outside of Australia and NSW are omitted from a national level analysis and State level analysis, respectively.</p> <p>With respect to the claim of a computational error, this would appear to lie with Rod Carr who appears to have erroneously included Scope 3 greenhouse gas emissions from the end use of the coal i.e. combustion of coal overseas for electricity. These emissions are not relevant to an economic assessment of a coal mining project.</p>
Exclusion of other externalities - water	<p>This is incorrect. The economic cost of the Project's water requirements is included in the benefit cost analysis. The two independent peer reviews confirm that an appropriate value has been used.</p>
The impact of the Project on the studs estimate by MJA at up to \$368 million present value has not been included in the Economic Assessment	<p>The benefit cost analysis (<b>BCA</b>) of the Project by Gillespie Economic (2016) is based on technical assessments undertaken in the EIS. These found no direct or indirect noise, dust or other impacts on the Coolmore stud farm and Darley Woodlands broodmare farm. With no direct or indirect biophysical impact, the Economic Assessment assumes that there would be no impact on land productivity or economic values of these operations, and hence there are no economic impacts for consideration in the BCA.</p> <p>However, even if there were impacts on the horse studs, NSW Government (2015) Guidelines clearly identify that the benefit cost analysis should be focused on costs and benefits to NSW entities. Benefits and costs to foreign</p>

Economics (Rod Carr)	Project Impact / Response
	<p>owners are excluded from benefit cost analysis. (The Economic Analysis of the Project was prepared prior to these Guidelines and reports the results for both Australia and NSW). Hence, in the benefit cost analysis of the Project, only the component of net revenue that accrues to Australian and NSW i.e. royalties and company tax, are counted as net production benefits of the mining operations. If there are impacts on the 100% foreign owned horse studs, then only the loss of the components of net revenue that would otherwise accrue to Australia and NSW are relevant costs for inclusion in the analysis. For foreign owned agricultural enterprises, such as Darley and Coolmore, the component of net revenue that would accrue to Australia and NSW is essentially company tax.</p> <p>However, review of available financial records for Darley and Coolmore operations indicated that Darley had an operating loss of A\$7 million in 2011 and an operating loss of A\$49 million in 2010. It paid no company tax to government in either year. The company's ability to continue as a going concern is dependent on the continued financial support of its ultimate shareholders. Coolmore had a slight operating profit in 2010 and paid A\$0.5 million in company tax. Approximately A\$0.16 million of this accrues to NSW.</p> <p>The economic benefit to NSW that is potentially at risk from the relocation of these operations interstate or overseas is therefore negligible.</p>
Coolmore and Darley directly employ over 220 people and provided over \$120 million per annum in gross regional production for the local economy	<p>Given the above, the main debate would appear to be around the potential loss of economic activity in the region if the studs were to relocate.</p> <p>The Economic Assessment reports that the Project will have direct employment of 463 and gross regional production for the local economy of A\$417 million. This is not disputed by MJA. The Project will therefore have significantly greater direct employment and direct gross regional production to the local economy than the two horse studs combined. Noting that Darley's horse stud is some 30 kilometers north east of Drayton South north of Aberdeen.</p> <p>There will be no substantive biophysical impacts from the Project on the horse studs and hence no reason why the local economy cannot benefit from the Project and the operation of Coolmore stud farm and Darley Woodlands broodmare farm.</p>

Economics (Rod Carr)	Project Impact / Response
Quotes the 2015 Review PAC, which states the "net economic benefits of the project are optimistic and are likely to have been overstated"	<p>The conclusions of the BDA Group peer review of Gillespie Economics (2015) states "<i>Overall, and based on the assumptions, data and analyses presented, Gillespie Economics appropriately concludes that firstly, the project offers net economic benefits to the region, State and more broadly to Australia, and is therefore desirable from an economic efficiency perspective; and secondly, that the region and governments will be significant beneficiaries through the levels of regional employment and activity, and royalty and taxation collections respectively.</i>"</p> <p>Professor Bennett, the independent peer reviewer commissioned by the Department also concludes that the recommendations of Gillespie Economics remain appropriate and the benefits of the Project will outweigh the costs.</p>

Economics (Dr Philip Williams)	Project Impact / Response
<p>"The chief problem with the study (Gillespie Economics BCA) was that it ignored the costs that would be borne by the studs as a result of the project."</p> <p>"These costs are obviously substantial - as indicated by the resources that the studs are devoting to attempting to prevent the development of the project."</p> <p>"I agree with Professor Bennett that one should treat benefits that accrue to foreign nationals symmetrically between the mines and the studs. A tractable solution may be simply to add up all costs and benefits without tracking exactly where in the world they finally land."</p>	<p>Dr Williams consideration of the costs and benefits of the Project is contingent on the view that "<i>one should treat benefits that accrue to foreign nationals symmetrically between the mine and the studs</i>" and "<i>adding up all costs and benefits without tracking exactly where in the world they finally land</i>".</p> <p>However, the latter is inconsistent with the NSW Government (2015) <i>Guidelines for the economic assessment of mining and coal seam gas proposals</i>, which requires that the benefit cost analysis is based on the costs and benefits to the NSW community.</p> <p>A consequence of this is that not all the economic benefits of the Project are included in the benefit cost analysis e.g. profits to Anglo American. Only the components of net revenue that accrue to Australia and NSW are included i.e. royalties (which fully accrue to NSW) and company tax (which partly accrues to NSW).</p> <p>Consistent treatment of the benefits of the stud operations means that only company tax payable by these entities that accrues to Australia and NSW should be a consideration in benefit cost analysis. Evidence suggests that historically little if any company tax has been payable by the studs.</p> <p>Hence, the potential costs to NSW from any impacts on the</p>

Economics (Dr Philip Williams)	Project Impact / Response
	horse studs are not "substantial", as claimed by Dr Williams.
The characterisation of the debate between the promoters of Drayton South and the owners of Coolmore and Darley suggests that it is not appropriately resolved by use of benefit cost analysis. Benefit cost analysis is best used when a project involves widespread costs and benefits - or where market prices are particularly distorted.	<p>While the debate will not be resolved by benefit cost analysis, since benefit cost analysis is only one input into the decision-making process, benefit cost analysis is the appropriate tool for analysing the magnitude of the trade-offs.</p> <p>Contrary to the statement of Dr Williams, benefit cost analysis is suitable for analysis of projects that potentially involve externalities, as is the case with the Project, and indeed benefit cost analysis is a mandatory requirement for the assessment of mining projects. See the NSW Government (2015) <i>Guidelines for economic analysis of mining and coal seam gas proposals</i>.</p>
The problem is better analysed as one of conflicting land use using the Coase Theorem. With the suggestion that one potential Coasean Bargaining approach would be for the Anglo American, and perhaps the NSW Government, paying the studs to withdraw their objection to the Project	This perhaps highlights a motivation for the studs to continue their objection to the Project despite biophysical assessments indicating no material biophysical impacts of the Project and independently peer reviewed analysis indicating no reputational impacts of the Project on the Coolmore stud farm or Darley Woodlands broodmare farm. However, this does not accord with NSW Government planning policy and NSW Government's recent economic analysis guidelines (2015).

Economics (Michael White)	Project Impact / Response
Questions the Project's economics and states the likelihood of delivery of the plan is "questionable" and "...level of detail of the cost information ... is insufficient". States previously production was significantly less than the previous plan and equipment productive looks optimistic. It also states that project capital costs appear understated.	The benefit cost analysis of the Project has been independently peer reviewed by both BDA Group and Deloitte Access Economics. These support the core findings of the analysis. The Department is also satisfied with the Economic Assessment.

Economics (Michael White)	Project Impact / Response
In relation to the approved Drayton mine closure plan, the adequacy of rehabilitation financial provisioning of \$66 million has not been independently verified. Suggests the Drayton South costs are "...unchanged at \$66 million and do not reflect the necessary increase to cover removal of this additional infrastructure".	Refer to Section 3.4 of this report.

### 3.14 Horse Health

Assoc. Professor Nicholas Kannegger prepared an Equine Health Impact Assessment as part of the EIS over the Project. His assessment definitively demonstrated the Project will not pose any risk to equine health at either Coolmore horse stud or Darley broodmare farm. His assessment was peer reviewed by two other pre-eminent independent experts in this specialist field: Assoc. Professor Kristopher Hughes and Dr Deborah Racklyeft. Both peer reviewers concurred with Assoc. Professor Kannegger's assessment.

Further, the 2015 Review PAC acknowledged that it:

*"...has not found any conclusive evidence of horse health impacts".*

This is because there is none. All independent assessments, based on objective evidence, demonstrate that there is no risk to equine health should the Project proceed. The evidence is conclusive and as such equine health cannot be considered relevant consideration in assessing whether either Coolmore and/or Darley will choose to abandon the Upper Hunter Valley. This is why the submissions and previous PACs have focused on "perception" rather than "actual risks".

Dr Brett Tennent-Brown, Associate Professor of Equine Medicine at the University of Melbourne presented at the Public Hearing on behalf of Darley and Coolmore.

Key issues raised by Dr Tennent-Brown and responses are provided in the table below.

Equine Impacts  (Dr Brett Tennent-Brown)	Project Impact / Response
Equine Health Impact Statement is Deficient	<p>The EIS thoroughly addresses equine health. It includes an extensive and exhaustive literature review to identify the potential for mine generated dust, blasting, and general mine noise to impact on equine health. A renowned specialist in equine respiratory diseases, Assoc. Professor Nicholas Kannegieter, conducted the review and provided a comprehensive independent assessment which was based on the various environmental assessments produced as part of the EIS, a broader ranging literature review and his expertise in equine health, which has definitively demonstrated there is <b>no risk to equine health</b>.</p> <p>Following further pre-eminent peer review reports on equine health which concluded that there is no risk of horse health impacts from the Project, the 2015 Review PAC determined that it "<i>has not found any conclusive evidence of horse health impacts</i>".</p>
Dr Kannegieter's report does not provide information on the effects of coal dust on horses and includes irrelevant material.	<p>This is a spurious and unsubstantiated statement that can be given no weight in the determination process.</p> <p>Assoc. Professor Nicholas Kannegieter, Assoc. Professor Kristopher Hughes and Dr Deborah Racklyeft should be contacted immediately if there is any doubt in the minds of this PAC over the potential for it to cause any impacts to horse health at either Coolmore stud farm or Darley Woodlands broodmare farm.</p>
Methodology in assessment is inadequate and you cannot conclude that horses will not be adversely affected if human air quality criteria are met.	<p>This is a spurious and unsubstantiated statement that can be given no weight in the determination process.</p> <p>Assoc. Professor Nicholas Kannegieter, Assoc. Professor Kristopher Hughes and Dr Deborah Racklyeft should be contacted immediately if there is any doubt in the minds of this PAC over the potential for the Project to cause any impacts to horse health at either Coolmore stud farm or Darley Woodlands broodmare farm.</p>
A lack of evidence on the adverse effects of dust arising from coal mining on equine health does not indicate there is no effect.	<p>Agreed. However the research conducted and evidence provided by Assoc. Professor Nicholas Kannegieter, Assoc. Professor Kristopher Hughes and Dr Deborah Racklyeft does confirm that the Project will not cause any impacts to horse health at either Coolmore stud farm or Darley Woodlands broodmare farm.</p>

### 3.15 The Project meets relevant policies and standards

#### SRLUP

The SRLUP provides a strategic framework to balance agriculture and resource development in the Upper Hunter region. The objects of the plan are to:

- ensure the protection of strategic agricultural land and the water resources it relies on;
- ensure security and clarity for agriculture and mining and coal seam gas industries;
- ensure a balanced use of land by competing industries; and
- provide enhanced future opportunities for sustainable mining and agricultural industries.

The SRLUP has identified and mapped land with unique natural resource characteristics (known as biophysical strategic agricultural land) and clusters of significant agricultural industries (known as CICs). The plan defines a CIC as a localised concentration of interrelated productive industries based on an agricultural product that provides significant employment opportunities and contributes to the identity of the region. The main purpose of creating CICs is "*to establish measures to protect this high quality agricultural land from the impacts of coal seam gas and mining activities.*" (Department website, CICs in the Hunter).

The equine and viticulture industries are the two currently identified CICs in the region.

The SRLUP also introduced a Gateway process to provide independent, scientific and upfront assessment of how a mining or CSG proposal on strategic agricultural land will impact the agricultural values of the land.

Both the Department and the PAC have previously stated that they not believe the intention of the SRLUP is for no or nil impacts from mining on CICs: "*It is considered unreasonable to expect that in areas where mining is a permissible land use, has historically been a major industry, and where there are current Exploration Licences, that indirect visual impacts associated with noise, blasting and dust emissions from mining cannot be avoided entirely*" (2014 Determination PAC Report, p 9, citing Secretary's Environmental Assessment Report dated July 2014, p 35).

Clause 17H(4)(b) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)* states that for the determination of Gateway Certificate Applications:

*"The relevant criteria are as follows:*

*in relation to critical industry cluster land—that the proposed development will not have a significant impact on the relevant critical industry based on a consideration of the following:*

- (i) *any impacts on the land through surface area disturbance and subsidence,*
- (ii) *reduced access to, or impacts on, water resources and agricultural resources,*
- (iii) *reduced access to support services and infrastructure,*
- (iv) *reduced access to transport routes,*
- (v) *the loss of scenic and landscape values."*

Pursuant to clause 17H of the Mining SEPP, on 2 April 2015, a Gateway Panel chaired by Associate Professor Brett Whelan issued a Conditional Gateway Certificate over the Project 2nd

Application confirming that the Project will not have a significant impact on the relevant criteria reproduced above. That is that the Project is entirely consistent with contemporary NSW Government Policy specifically introduced to protect the equine industry from significant impacts from coal seam gas and mining projects.

The Gateway Panel's Report supporting the issuance of the Certificate concluded that "*no equine or viticulture enterprises are located within the Project Disturbance Boundary*".

The Gateway Panel further acknowledged "*that the proponent has now submitted an updated mine plan with mine boundaries adjusted to be behind an identified ridge line on the southern boundary as recommended in MPGP, 2013*" to "*help reduce the visual impacts*". In their recommendations attached to the Conditional Gateway Certificate not one condition related to concern over the adjacent equine CIC or a suggestion of further protection for Coolmore stud farm or Darley Woodlands broodmare farm. All conditions related to the mitigation of impacts to BSAL within the Project Disturbance Boundary. All of these recommended seven conditions attached to the certificate have subsequently been complied with.

### **Mining SEPP**

The NSW Government has a policy framework to resolve potentially unacceptable land use conflicts between mining, equine uses and agricultural uses in the Mining SEPP. For example, clause 12AB of the Mining SEPP provides non-discretionary development standards for noise, air quality, airblast overpressure and ground vibration. The Secretary's EAR and the Review Report agree with the EIS that the Project will comply with all standards in clause 12AB which are directed at protecting the most sensitive land use – a private dwelling.

Perceived impacts of the Project on air quality and noise are discussed further in the 2016 Response. The Project meets all relevant Government policies that were developed specifically to deal with competing equine and mining land uses and has obtained a Gateway Certificate which has been complied with.

### **3.16 Anglo's divestment**

In February 2016, Anglo American announced the sale of all global coal assets. The Drayton/Drayton South assets were included in the Australian assets for sale. The reason for the coal asset sale announcement was driven by a need to address Anglo American's balance sheet issues in relation to debt levels.

Two of Anglo Americans coal assets have already been sold (Foxleigh and Callide) with Dartbrook also under a sales/purchase agreement that is yet to complete.

Successfully completed asset sales and an improvement in commodity prices means that Anglo American will have achieved its objective of reducing debt to target levels by the end of 2016. Some of Anglo American's Australian assets have already been withdrawn from the market and will continue to be operated by Anglo American for the foreseeable future.

Drayton South is a valuable asset and a high quality coal resource. Anglo American is implementing the Drayton mine closure plan as approved by the Department. The sequence of the closure plan has taken into account the outstanding PAC determination with key rehabilitation areas deferred to later years to avoid rehabilitating areas that would be used should the Project be approved.

An approval by the PAC for this Project will establish the defined project conditions and commitments for Anglo American, or for that matter, any other potential future owner of the assets during project construction and operation. As such all of the identified economic benefits associated with the Project will be realised by NSW including the confirmed 2085 full time equivalent jobs and the \$30 million in royalties per annum.

When Anglo American purchased the Shell Coal assets in 2000, all the relevant regulatory obligations and requirements passed through to Anglo American. Likewise this is also the case for Mach Energy acquiring the approved Coal & Allied Mt Pleasant asset which has yet to be developed. Whether Anglo American or another company constructs the Project the obligations and requirements of the project approval remain as do the commitments in the EIS.

Most economic commentators have called the nadir in the coal price. Coal companies have done likewise as evidenced with the recent announcement of several mothballed operations preparing to restart (e.g. Glennies Creek, Collinville etc.). Anglo American has pursued the approval of this Project over several years because the Project fundamentals remain sound and attractive. This remains the case under current coal price forecasts. There is no doubt that should this Project be approved that it will be developed and deliver significant value to the region and to NSW.

### **3.17 Evidence contrary to Coolmore and Darley's threat to leave the Upper Hunter**

The investment decisions of Darley and Coolmore are completely inconsistent with their claims that mining and thoroughbred breeding are incompatible uses and that no person in their right mind would locate a horse stud or broodmare farm in proximity to a mine.

Both Coolmore and Darley are relatively recent investors in the Hunter Valley.

The operating open cut coal mines were well developed in the region and the prospect of the Drayton South coal mine was already confirmed when Coolmore and Darley chose to acquire their respective properties of Arrowfield and Woodlands. Contrary to Coolmore's nominated start of operations in 1996 the record shows acquisition of the property in 1991 when both a development consent and mining lease for a much larger mine were still active. Darley's acquisition of Woodlands was in full knowledge of an active exploration program for a Drayton South development. Also noteworthy is Darley's opposition to the Mt Arthur extension in 2008/09 when the claim was made that it would be totally unworkable is now changed to 'acceptable' now the Mt Arthur extension is approved and underway.

Whilst image and brand is clearly an important marketing feature for thoroughbred horse breeders, both businesses chose to locate all (for Coolmore) or part (for Darley) of their operations adjacent to a property identified for future mine development and within 3-5 kilometers of existing approved mine developments. The Drayton South property was known to have had a fully approved mine development consent, was covered by an active exploration licence, and was being actively explored for development. One can only presume that the reputational risk was considered acceptable at the time of acquisition by Coolmore and Darley.

Darley continue to demonstrate that 'reputational risk' from nearby mining operations is not a significant factor in their acquisition of the Osborne Park facility in Agnes Banks, NSW for an estimated \$30 million.<sup>2</sup>

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<sup>2</sup> Thoroughbred News, Osborne Park, <http://thoroughbrednews.com.au/spring-racing/default.aspx?id=61456> (21 August 2012).

The Osborne Park facility is located approximately 500m from a sand and crushing quarry across the road (see aerial image below<sup>3</sup>). Any visual or amenity perception issue associated with adjacent mining activity was clearly not a factor in the decision to invest in Osbourne Park and continue to use it as a training facility for elite thoroughbreds.



Further, in relation to Coolmore, and as noted in their submission to this PAC, they have continued to augment properties contiguous to the original farm purchase in the form of the Arrowfield winery (now Holydene) in 2013 and land previously owned by Nucoal (not mentioned in the PAC submission) as late as June 2016. The significance of both these augmentations is that:

- the \$4 million Holydene purchase was just prior to the 2013 Review Report being released and the associated 'uncertainty' for Coolmore in relation to that outcome;
- the Holydene purchase effectively and conveniently gazumped negotiations Anglo American was having with the owners of the Arrowfield property;
- Coolmore had earlier opportunity to purchase the Arrowfield property for a far lower price but had chosen not to do so (possibly until they discovered that Anglo American was interested in acquiring the property); and
- the recent \$1.6 million purchase of Nucoal property this year prior to the final determination of the Project does not indicate any intention to leave their current location in the event that the PAC determine the Project to be approved.

<sup>3</sup> Google Maps (9 December 2016).

## 4. RELEVANT FACTORS FOR PAC TO CONSIDER

### 4.1 Overview

This PAC is tasked with determining the Project application. This is an important task and must not be undertaken lightly.

Giving due consideration to relevant factors, the appropriate decision is clear. As demonstrated in sections 2, 3 and 4 of this report, the weight of cogent and reliable evidence and the public interest favours **consent for the Project**.

Mr Beatty in his submission at the Public Meeting, on behalf of the equine industry, suggested to this PAC that there are three main tasks:

**First**, consider what information you have (and what you do not have) to enable you to make a decision.

**Second**, weigh up the evidence before you and decide what is relevant, reliable and persuasive, then balance that against material which does not fit that description.

**Third**, make a decision conformably with the protection and advancement of the public interest and in furtherance of the objectives of the EP&A Act.

As to the first point, there is no doubt that there is a significant body of evidence before this PAC which addresses the SEARs as well as concerns raised by the Department, previous PACs and the community (including, in particular Coolmore and Darley) during the assessment process for both the first project application and the current Project application.

As to the second point, Anglo American has consistently provided high quality, detailed, peer-reviewed evidence prepared by independent experts demonstrating that the Project complies with all applicable Government standards, policies and guidelines. Conversely, the evidence submitted by and on behalf of Coolmore and Darley relies primarily on conjecture, perception and unsupported threats with no peer reviewed data and consultants either do not have the requisite qualifications or have not been provided with the full facts in relation to the Project as demonstrated by our responses in section 3 above.

As to the third point:

- the Project meets all NSW planning policy requirements - which include requirements designed to ensure the co-existence of mining, agriculture and the equine industry in the Upper Hunter;
- both the Secretary's EAR and the Review Report found that the Project can be carried out generally in accordance with all relevant environmental impact assessment criteria applying to the regulation and control of noise, air quality and blasting impacts from open cut coal mining (see FAR, p 2);
- the Project has been significantly amended to make provision for the recommendations of previous PACs and to mitigate any perceived impacts on Coolmore and Darley; and
- the Project provides a clear economic benefit to the community and to the State of NSW over the long term.

It follows that there is no logical or reasonable basis to refuse development consent. The Department has undertaken a detailed review of all the evidence and engaged its own expert to

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conduct peer reviews. The Department recommends approval, consistent with NSW Government policy and a stringent set of conditions of consent.

This PAC is tasked with reviewing the Project application against current policy, not its own view of what NSW Government policy should be. To refuse consent to a Project that meets all relevant criteria will create significant uncertainty for the future of mining in the Upper Hunter and development in NSW more generally. It would be a clear departure from the policy of the current NSW Government. This is clearly not in the public interest.

## 4.2 Planning regime - relevant considerations

There are a number of matters that this PAC must take into account in determining the Project application. These include:

- the objects of the EP&A Act;
- the provisions of relevant environmental planning instruments (**EPIs**) (in accordance with EP&A Act, s 79C(1)(a));
- the likely impacts of the development (in accordance with EP&A Act, s 79C(1)(b));
- the suitability of the site for the development (in accordance with EP&A Act, s 79C(1)(c));
- any submissions made in accordance with the EP&A Act (in accordance with EP&A Act, s 79C(1)(d)); and
- the public interest (in accordance with EP&A Act, s 79C(1)(e)).

The Department, in the FAR, states (p 1):

*"The Department recommends that the Commission considers the project having regard to all evidence presented to date and in consideration of the overall merits of the proposal, the matters identified in the relevant legislation and current Government policies that govern assessment of development proposals in New South Wales."*

## 4.3 The Project is consistent with the objects of the EP&A Act

Darley advocates that a precautionary approach should be taken and the Project should be refused. However, this clearly misconstrues the application of the precautionary principle which applies to achieve ecologically sustainable development only where there is "a 'threat' of 'serious or irreversible environmental damage'. The Department does not consider the precautionary principle is engaged in this case as the issues identified by the studs do not amount to this type of threat (FAR, p 24). A threat to reputation does not constitute serious or irreversible environmental damage and no credible evidence has been obtained to suggest any threat to horse health. Indeed the reverse is true. Vast amounts of peer reviewed objective evidence demonstrate there is no impact to horse health. Further, Edinglassie is a highly successful broodmare from which is thriving despite being located closer to mining activities than this Project.

We also share the Department's concern that the provision of the protections that Coolmore and Darley are seeking on the basis of their perceptions as to their brand and precedent, could create uncertainty in the NSW planning system (FAR, p.24). We agree that, in respect of intra-generational equity it is important to create equitable outcomes and ensure that all neighbouring

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residents and land uses are afforded equal protection through the protection and mitigation measures established in the Government's policies and guidelines.

Decision-making needs to be based firmly on the foundation of Government policies and guidelines informed by the best available scientific knowledge. One exception for Coolmore and Darley creates a precedent for many more exceptions to the application of NSW Government planning policy and guidelines and thus uncertainty. This is not consistent with the objects of the EP&A Act and an adverse decision could create uncertainty for many future State significant development proponents in a variety of sectors.

#### **4.4 The Project meets all relevant NSW Government EPIs, policies and assessment criteria**

As detailed further in the 2016 Response:

- the Project is consistent with the SRLUP as assessed by the Gateway Panel;
- the Project will comply with the non-discretionary development standards for noise, air quality, airblast overpressure and ground vibration set out in the Mining SEPP (the Secretary's EAR and the Review Report agree); and
- the Project meets all other relevant EPIs, policies and assessment criteria required by relevant government agencies.

The Department, in the FAR, states (p 1):

*"The Department considers that the assessment process for the project has been extensive, detailed and informed by numerous experts in a range of fields. The Department has consulted widely with the local community and industry (both for and against the project). The Department has paid careful consideration to the opinions of the local and broader community and key stakeholders in the thoroughbred industry. It has also considered the advice and extensive technical analysis of relevant Government agencies and the recommendations made by the Commission.*

*Overall, the Department's position remains that, subject to implementation of mitigation and management measures proposed either by Anglo or the Department's assessment, the project **meets all relevant NSW Government policies and assessment criteria**. The Department considers that the proposed mine plan provides an appropriate balance between the efficient recovery of a significant State resource and the protection of an important agricultural industry."*

#### **4.5 In assessing the likely impacts of the Project, the scenario of Coolmore and Darley leaving the Hunter Valley is the critical issue**

The impacts of the Project (e.g. visual, noise, air quality and other impacts) have been assessed in detail in the EIS and subsequent documents and extensively peer reviewed in most cases. The Department, in its FAR, has determined that all relevant criteria have been met and management and mitigation measures to the extent needed can be dealt with by way of conditions of consent.

The Review Report stated that the scenario of Coolmore and Darley leaving the Hunter Valley and risk of collapse of the Upper Hunter equine CIC is the critical issue in deciding whether or not to approve the Project. The 2015 Review PAC recommended that the Project should not

proceed due to the reputational risks that it posed to Coolmore and Darley and the risk that those two participants would leave the Upper Hunter, resulting in real risks to the equine CIC that would outweigh the short term benefits of the Project.

Reputational and perception risks are difficult to quantify objectively and are inherently subjective. The appropriate approach to this kind of subjective evidence is set out by Preston CJ in the *Telstra Corporation v Hornsby Shire Council*<sup>4</sup>. In forming a view about the likely effect of a proposed development the determining authority should prefer views which find justification in specific, concrete and likely effects of the proposed development.

Anglo American has provided significant new evidence in the form of two expert reports from Greg Houston that demonstrate there is no economic reason for Coolmore and Darley to leave the Upper Hunter. In Mr Houston's opinion, it would not be in either Darley's or Coolmore's economic interests to leave the Upper Hunter. Further, he concludes that perceptions are not crucial to stud or broodmare farm operations and notes that Dr Stowe's own empirical analysis supports this conclusion. Even if Coolmore and Darley were to leave their present locations, then it would be more likely that they would move to another location in the Upper Hunter rather than leave the area entirely.

The Houston Supplementary Expert Report sets out the complex decision monitoring process that Coolmore and Darley would need to go through if they decided to leave the Upper Hunter and the impact that would have on the equine CIC. Mr Houston concludes that even if both Coolmore and Darley moved all of their operations out of the Hunter Valley, the Upper Hunter equine CIC would still continue to prosper and would be approximately double the size of the next largest successful breeding cluster in Australia or New Zealand. Mr Houston's worst case scenario assessment was conservative in that he did not account for the likely expansion by other competing studs in the Upper Hunter equine CIC or others as they take advantage of the gap left by Coolmore and Darley.

#### **4.6 Submissions demonstrate the Project has the overwhelming support of the local community**

Submissions provided to the Department and the PAC through numerous consultation processes demonstrate that the Project has the overwhelming support of the local community as illustrated in the table extracted from the FAR (p 24).

Nature of Submission	EIS Exhibition Period	Commission Review (incl. all Voice for Mining submissions)	Commission Review (incl. only 'unique' Voice for Mining Submissions)
Support (%)	4,279 (98.1%)	17,943 (99.5%)	11,215 (99.3%)
Object (%)	84 (1.9%)	74 (0.4%)	74 (0.7%)
Neutral (%)	-	8 (0.0%)	8 (0.1%)
<b>Total</b>	<b>4,363</b>	<b>18,025</b>	<b>11,297</b>

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<sup>4</sup> *Telstra Corporation Limited v Hornsby Shire Council* [2006] NSWLEC 133 at [189] to [208].

The objections of Darley and Coolmore are outliers which represent only part of the Upper Hunter equine industry. Over 99% of submissions received have been in support of the Project. Significantly, the majority of horse studs and 150 broodmare farms in the Upper Hunter equine CIC have not objected to the Project.

#### **4.7 The public interest**

Public interest exists in meeting the objectives of the EP&A Act and complying with Government policies and guidelines, considered decision-making and equitable treatment of different interests. The public interest does not exist in favouring two individual equine industry players above other industries or the rest of the equine industry (that, according to peer-reviewed evidence, will flourish even in the highly unlikely event that Coolmore and Darley do leave the Hunter Valley).

In forming the opinion that the Project was in the public interest and should proceed, the Department stated the following:

*"Overall, the Department is satisfied that the benefits of the project would outweigh its costs, and believes that the proposed mine plan strikes an appropriate balance between protecting the interests of the horse studs and realising the significant economic benefits that would flow to the region and the State if the project is allowed to proceed."<sup>5</sup>*

Anglo American supports the Department's view and while it does not necessarily agree with all of the Department's comments it notes that the Department has undertaken a balanced assessment of all potential impacts of the Project compared to the benefits.

Anglo American requests that this PAC undertakes a detailed probative objective analysis of all of the evidence before it, including all of the matters raised in this section of the report. The PAC should take further steps to verify any unsubstantiated claim, if possible, and adopt the same level of rigour and standard in assessing all expert evidence before it in weighing up the Project benefits and impacts.

#### **4.8 Conditions of consent**

It is appropriate that this PAC addresses any residual risks posed by the construction and operation of an open cut coal mine through conditions of consent.

Anglo American has accepted the Department's recommended conditions of consent including a new condition proposed by the Department to encourage Coolmore, Darley and Anglo American to work co-operatively together in good faith. The Department is requiring Anglo American to use its best endeavors to establish a Thoroughbred Studs Consultative Committee to facilitate ongoing consultation to be chaired by an independent chairperson approved of by the Secretary. Any dispute about the reasonableness or feasibility of management measures (including timeframes and implementation) is to be referred to the Secretary for final resolution. Anglo American acknowledges and agrees with this approach.

#### **4.9 Sterilisation of future coal resources**

Anglo American has taken the unprecedeted step of offering to surrender future potential mining rights that would sterilise up to 50 million tonnes of coal in order to address Coolmore's and Darley's concerns about the potential for future cumulative impacts and mine creep. By

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<sup>5</sup> Secretary's EAR, p. 107-108

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foregoing any future right to open cut mine the area between the natural ridgeline and Coolmore and Darley, Anglo American is effectively creating a permanent buffer or mine exclusion zone between the properties.

This offer demonstrates that Anglo American has seriously considered and responded to previous PAC assessments and sought to meet the increasing demands of Coolmore and Darley at each step in the consultation process. Anglo American has made this offer even where there is no NSW Government direction or policy requiring such a concession to be made. Anglo American remains willing to work with and co-operate with Coolmore and Darley and submits that it is entirely reasonable and foreseeable that two important industries can co-exist, prosper and create important jobs and revenue for the region.

## 5. CONCLUSION

This Project has been exhaustively environmentally, socially and economically assessed by commissioned pre-eminent experts whom are signatories to the Expert Witness Code and all of the relevant State and Commonwealth government agencies and their independent expert panels in accordance with current Government policy and legislative planning law requirements.

The relevant Government agencies and their independent peer review experts have concluded beyond any reasonable doubt that the Project complies with all relevant Government policy and criteria.

The Project has met all the requirements of the SEARs and recommendations of the Gateway Panel specifically established, amongst other things, to protect the Upper Hunter equine CIC.

An objective analysis of the facts and peer reviewed evidence demonstrates that the Project poses:

- no risk to the stallions, the premium asset of a stud;
- no risk to the broodmares at Darley;
- no risk to any of the landscape factors that support Coolmore and Darley's image, branding and operational performance; and
- no other material risk to the environment or human health.

Mr Houston has conducted a detailed analysis of the decision-making and logistics that would follow any decision of Coolmore and Darley to leave based on information they have provided to the PAC. Coolmore has stated that it will take up to eight years to bring pasture up to Coolmore's required standard for paddocks. The Drayton South mine will be in the seventh year of active mining at this stage assuming that it takes around a year to begin mining once development consent is given. At this time, there will be just three years until active mining moves a substantial distance away from the Coolmore stud and a further five years before mining ceases altogether in this area.

Mr Houston has demonstrated that there is no logical or reasonable basis for Coolmore and/or Darley to leave if the Project goes ahead. In fact, such action would be contrary to their economic interests and there is likely to be a significant time constraints if available land is not already available in other thoroughbred breeding clusters. Further, Mr Houston concludes that perceptions are not crucial to stud or broodmare farm operations and notes that Dr Stowe's own empirical analysis supports this conclusion. There is no reason for Coolmore or Darley to leave the Hunter Valley and, according to Mr Houston, the structural threat to the equine CIC would be minimal or non-existent even if they both nevertheless did leave.

Anglo American has pursued the approval of this Project over several years because the Project fundamentals remain sound and attractive. This remains the case under current coal price forecasts. There is no doubt that should this Project be approved that it will be developed and deliver significant value to the region and to NSW as demonstrated by the benefits of Drayton mine over the past 33 years. This includes:

- 2,085 full time equivalent jobs created, 984 of which will be in the Upper Hunter Valley;
- the Project will generate royalties of \$423 million in total or \$233 million present value for NSW;

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- the capital investment associated with the Project is estimated at \$131 million;
  - there will be \$906 million in annual direct and indirect regional output or business turnover; and
  - \$188 million in annual direct and indirect household income generated.

Anglo American requests that this PAC undertakes a detailed probative objective analysis of all of the evidence before it (subjecting it all to the same standard of scrutiny) and considers all current Government policy and criteria in determining whether or not to approve the Project.

This Project has the overwhelming support of the local community, is in the public interest and will bring substantial benefits to the local and regional economy and State of NSW.

## 6. ABBREVIATIONS

Abbreviation	Description
2013 Review PAC	PAC to prepare the 2013 Review Report
2013 Review Report	PAC Review Report dated 10 December 2013
2014 Determination PAC	PAC to determine first Project application on 17 October 2014
2015 Review PAC	PAC to prepare the Review Report
2016 Response	Anglo American Response to the Review Report dated May 2016
ACHMP	Aboriginal Cultural Heritage Management Plan
Air NEPM	National Environment Protection (Ambient Air Quality) Measure
Anglo American	Anglo American Coal Pty Ltd
Approved Methods	Approved Methods for Modelling and Assessment of Air Pollutants in NSW (NSW DEC, 2005)
AQA	air quality assessment
BCA	benefit cost analysis
BSAL	Biophysical Strategic Agricultural Land
BSAL SVA	BSAL Site Verification Assessment dated April 2015.
CICs	critical industry clusters
Department	NSW Department of Planning and Environment
DoE	Commonwealth Department of Environment
DPI-OASFS	NSW Department of Primary Industries - Office of Agricultural Sustainability and Food Security
DRE	NSW Department of Trade and Investment - Division of Resources and Energy
EECs	Endangered Ecological Communities
EIS	Environmental Impact Statement dated May 2015
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EPA	NSW Environment Protection Authority
EPIs	environmental planning instruments
FAR	Department Final Assessment Report dated 15 September 2016
HEM	Houghton Environmental Management Pty Ltd
Houston Expert Report	Independent Expert Report of Greg Houston dated 29 March 2016
Houston Supplementary	Independent Supplementary Expert Report of Greg Houston dated 9

Abbreviation	Description
Expert Report	December 2016
INP	Industrial Noise Policy
Interim Protocol	Interim Protocol for Site Verification and Mapping of Biophysical Strategic Agricultural Land (OEH and DPI-OASFS, 2013)
Mining SEPP	State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
MJPLCA	Muswellbrook-Jerrys Plains Landscape Conservation Area
MNES	Matters of National Environmental Significance
OEH	NSW Office of Environment and Heritage
PAC	NSW Planning Assessment Commission
Project	Drayton South Coal Project
Public Meeting	PAC Public Meeting held on 16 and 17 November 2016
RAPs	Registered Aboriginal Parties
Review Report	PAC Review Report dated 26 November 2015
RTS	Anglo American Response to Submissions dated 24 July 2015
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department
Secretary's EAR	Secretary's Environmental Assessment Report dated 21 August 2015
SLR	SLR Consulting Australia Pty Ltd
SRLUP	Strategic Regional Land Use Plan - Upper Hunter (NSW Department of Planning and Infrastructure, 2012)
TDS	total dissolved solids
TSP	total suspended particulate matter
UHPCS	Upper Hunter Particle Characterisation Study

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**Annexure 1 - Houston Supplementary Expert Report**

## Annexure 2 - Responses to other public submissions

### Bev Smiles - Hunter Communities Network

Other Comments (Bev Smiles)	Project Impact / Response
<p>The FAR goes to a lot of trouble to discuss the presence of coal interests near the Coolmore and Darley Woodlands horse studs over a period of time. However, the report fails to explain why the Mt Arthur South development consent was allowed to lapse in 1991.</p> <p>This was a very strong indication that a mine in this area would not be proceeding. Nor does the report explain why it took Anglo American 7 years from 2005 to 2012 to actually lodge an application to develop a mine. We consider that a mine in this area has never been a viable option and the key purpose of the proposal is to provide Anglo American with a saleable asset to dodge their rehabilitation liabilities at the Drayton mine.</p>	<p>The Mt Arthur South development consents lapsed in 1991 and 1994 due to failure to commence the project. The Project is now required as replacement coal tonnage for the existing Drayton mine. It represents the responsible exploitation of a NSW Government owned State significant coal resource.</p> <p>Anglo has lodged a bank guarantee for \$62 million as a rehabilitation bond. This amount is calculated using the approved DRE Rehabilitation Cost Calculation Tool and is endorsed by DRE.</p> <p>The Drayton mine closure plan is approved. Drayton has commenced implementing the closure plan with ~30% of 2017 bulk placement already done.</p> <p>"Dodging" rehabilitation liabilities would mean forfeiture of the rehabilitation bond. This would not pose a liability to the NSW government as the rehabilitation of the mine is well advanced and current estimates indicate it will cost far less than \$62 million to complete.</p>
<p>In the description of 'co-existence' between the horse and mining industries the Department outlines that the area between Jerrys Plains and Denman has a history of horse-breeding since early European settlement and this is exactly the point - there are no coal mines between Jerrys Plain and Denman along the Golden Highway.</p>	<p>Noted.</p> <p>As outlined in Section 7.14.3 of the EIS "...the existence of two large coal mines, Drayton and Mt Arthur, adjacent to the Project Boundary are another example of a historic land use in the region and can be viewed in the context that mining within this area is a continuation of historic land uses."</p> <p>The Project is an extension of an existing mine and as such aims to continue with existing employment and coexistence with other industries, as it has done so for the past 33 years.</p> <p>Refer to Section 3.3 of this report.</p>
<p>All the mines are to the north on the New England Highway side of the valley until east of Jerrys Plains where we have the large and ugly Hunter Valley Operations, Wambo and Warkworth Mines.</p> <p>There is not much horse-breeding</p>	<p>Refer to Houston Supplementary Expert Report at <b>Annexure 1</b> and Section 3.3 of this report.</p> <p>It has repeatedly been stated that the very successful Edinglassie broodmare farm is owned by BHP Billiton. This is simply not true. The Edinglassie farm is owned by private investors who have no connection to the mining industry.</p>

Other Comments  (Bev Smiles)	Project Impact / Response
<p>occurring in this part of the valley, or dairy farming or villages or people who are not in the mining industry.</p> <p>I contest the Department's position that there is a well-established history of co-existence between the horse and mining industries in the Hunter. This is a fantasy. The only horse breeding activities near mines are owned by mining companies.</p>	<p>Edinglassie is a historic 500-acre property on the banks of the Hunter River which was purchased by BHP Billiton Mt Arthur Coal in 1998.</p> <p>It continues to be privately leased and operated as a thoroughbred broodmare farm on land by an independent third party who has no connection to the mining industry. The broodmare farm is located immediately adjacent to the BHP Billiton owned Mt Arthur Coal Mine, the largest open cut coal mine in NSW.</p>
<p>There is no economic explanation given about how the smaller mine suddenly became viable.</p>	<p>The issue of the viability of a smaller mine is specifically addressed in Section 3.15.6 and Appendix E (Economic Assessment) of the EIS.</p> <p>Further detail is provided in Section 5.2.1 of the RTS.</p>
<p>One of the reasons Hunter Communities Network was formed is because the current criteria does not protect community health from intrusive noise, dust and pollutants from the coal industry. The cumulative impact of the industry is not adequately assessed and Government policy has been made to favour the mining industry.</p>	<p>Cumulative impacts have been included in the technical assessments completed in the EIS, in accordance with specifications outlined in the SEARs.</p> <p>Cumulative impacts are further discussed in the RTS in sections 6.5.2 (Air), Section 6.14.6 (Agriculture) and 6.12.2 (Groundwater) and in Section 3.7 of this report.</p>
<p>This brings me to the issue of the need for a transition in the Hunter away from dependency on the coal industry. This region is very vulnerable to changes caused by global decision-making.</p>	<p>Despite high level debates about the global demand for coal, it is indisputable that coal will continue to be a major global energy source for years to come.</p> <p>The Project is responding to continuing global demand for coal and has a finite life. The export thermal coal price will vary over time, as the market adjusts to balance the supply and demand position.</p>
<p>The opportunities to diversify industry in the Upper Hunter are many and would be much further advanced if the coal industry wasn't using its political muscle to prevent change, particularly in regard to renewable energy manufacture, installation and maintenance. The Hunter is in a prime position to be a renewable energy hub for NSW.</p>	<p>Noted.</p> <p>The current dominant land uses within and adjacent to the Project Boundary are varied and include open cut coal mining, power generation, industrial activities, thoroughbred horse breeding, viticulture, agriculture, rural residential and urban residential areas.</p>

Other Comments  (Bev Smiles)	Project Impact / Response
<p>Australia has become a signatory to the Paris Agreement and the NSW Government has announced a policy of 100% renewable energy by 2050.</p> <p>The Hunter could be at the forefront of this massive structural change rather than being left the most vulnerable community.</p>	<p>While steps are being taken across the world to reduce the reliance on the use of fossil fuels for electricity production, the International Energy Agency has forecast that the world's demand for coal will increase at an average annual rate of 0.8% between 2010 and 2035.</p> <p>This will be seen particularly in the developing countries where cheap and accessible energy will assist in bringing people out of poverty. There is no affordable alternate at present.</p> <p>As outlined in Section 6.6.1 of the RTS, recognising that coal still has an important role to play in the energy mix, Anglo American continues to engage with customers and peers on sustainable coal technologies.</p>
<p>They haven't assessed the total volume of water licences to be retired at the end of mining projects to offset the ongoing loss of base flows and groundwater drawdown into these vast toxic sinks for hundreds, if not thousands of years.</p> <p>These water licences will be forever forfeited from other productive use such as future food production. I can guarantee if the Commission were to ask for a total volume of mega litres in the Hunter River catchment that are required to be retired at the end of mine life, as currently approved, - no-one could provide the answer.</p>	<p>See Section 3.6 of this report in relation to water use. The water balance for the Project demonstrates that no water needs to be extracted from the Hunter River. Water licences are a precautionary measure only. The final void will receive runoff from the surrounding catchment and groundwater inflows from the surrounding strata.</p> <p>The final void will have a catchment area of approximately 264 ha. Runoff from this catchment is estimated at 185 ML/year. Based on its landholdings, Anglo American can take up to 334 ML/year in exercise of its harvestable right. Anglo American does not require any water licences to account for runoff into the final void.</p> <p>The rate of groundwater inflow to the void will increase as the water level rises. The inflow rate is predicted to stabilise at 188 ML/day once the water level reaches its long-term equilibrium level.</p>

#### Tom Hordern – Upper Hunter Winemakers Association

Impacts  (Upper Hunter Winemakers Association)	Project Impacts / Response
<p>Concern over lack of long-term planning for the region. Describes the SRLUP and "...areas of the Upper Hunter have been declared to be CICs for both Viticulture and Thoroughbred Breeding... that should be protected". Provide the</p>	<p>Refer to Section 3.15 of this report.</p>

Impacts  (Upper Hunter Winemakers Association)	Project Impacts / Response
protection intended by the SRLUP.	
Diversified industries a great asset of the Upper Hunter and creating future with diversity is critical. Ongoing lack of certainty in relation to mining is causing vigneron to leave the industry to relocate. If approved, the Project will affect the wine, tourism and two key Thoroughbred studs.	<p>The project is an extension of an existing mine and as such aims to continue with existing employment and coexistence with other industries, as it has done so for the past 33 years. It is in effect replacing an existing mine operation which has ceased.</p> <p>The author's comments are unjustified. The Project as proposed:</p> <ul style="list-style-type: none"> <li>• doubles the buffer distance to protect the horse studs from the impacts of mining as recommended in the Review Report and Gateway Panel Report;</li> <li>• will have no impact on the viability of operations at Coolmore stud farm or Darley Woodlands broodmare farm; and</li> <li>• will have no impact on the viability of the thoroughbred, viticulture or tourism industries, whilst continuing to deliver significant economic benefits to the local region and NSW.</li> </ul>
Bengalla Mine was responsible for the demise of Rosemount Wines vineyards.	<p>This unsubstantiated claim is simply not true.</p> <p>Following the approval of Bengalla Mine, the Oatley Family continued to invest in its wine producing business Rosemount Wines in the Upper Hunter Valley and elsewhere throughout NSW until they sold it to Southcorp in 2001 for a reported \$1.5 billion. Of note, they not only took up shares in Southcorp but also structured the deal so that they could continue to live in the Upper Hunter immediately adjacent to Bengalla Mine. For reasons nothing to do with mining Southcorp was ultimately acquired by Fosters.</p> <p>It was under Fosters management that the Rosemount Wines business ultimately declined due to external market forces at the time and arguably a flawed sales strategy. At no time during the demise of Rosemount Wines was it suggested by its owners that the adjacent Bengalla mine had any influence over its decision making processes.<sup>6</sup></p>
Cumulative impacts of mining in the Upper Hunter have never been adequately addressed.	Cumulative impact is also addressed in Section 6.22.1 of the RTS. Refer also to Sections 3.5 and 3.7 of this report.

<sup>6</sup> For example, see *How Southcorp and Fosters trashed the Rosemount Brand*, <https://www.bestwinesunder20.com.au/how-southcorp-and-fosters-trashed-the-rosemount-brand/> (2016).

**Craig Benjamin – Upper Hunter Tours**

Impacts (Craig Benjamin)	Project Impacts / Response
<p>As a business owner which relies upon the horse industry, concerned in relation to any approval of the Project which is "so close" to Coolmore and Darley.</p>	<p>The Project has been set back behind the second ridgeline as recommended by the 2013 Review PAC and is not visible from any of the operational areas of Coolmore stud or Darley broodmare farm.</p> <p>The Visual Impact Assessment (Appendix L of the EIS) concluded that the project will not impact on the visual amenity in the operational areas of either property.</p> <p>This Project is distant from the major tourist areas of the Hunter Valley although it is adjacent to the Golden Highway which is used for tourist travel to and from the Upper Hunter.</p> <p>Travellers will continue to pass several very visible mining operations and power stations on their journey up the valley, as they also do once they enter Denman Road and head towards Muswellbrook.</p>

**Ben Wyndham - Scone Chamber of Commerce**

Social Impacts (Scone Chamber of Commerce)	Project Impacts / Response
No operating coal mines in the local area...however...12% of the workforce is employed by the mining industry...	<p>Noted.</p>
Supports long term sustainable industries...ensure the viability of the town and the lifestyle it affords the community.	<p>In its 33 years of operation, Drayton mine has been a major employer, at its peak employing over 530 full time equivalent workers, of which approximately 75% reside in the Upper Hunter region.</p> <p>In the Upper Hunter region, the mining industry employs more persons than any other industry (Section 9.4 of the EIS).</p> <p>Estimated total wages from the Drayton mine, in present value terms, has been in the order of \$1,500 million to date with wage payments in the order of \$89 million per year.</p> <p>The Project will result in an annual contribution to the Upper Hunter (regional) economy for approximately 15 years:</p> <ul style="list-style-type: none"> <li>• \$559 million in annual direct and indirect regional</li> </ul>

Social Impacts  (Scone Chamber of Commerce)	Project Impacts / Response
	<p>output or business turnover;</p> <ul style="list-style-type: none"> <li>• \$220 million in annual direct and indirect regional value added;</li> <li>• \$71 million in annual direct and indirect household income; and</li> <li>• 984 direct and indirect jobs.</li> </ul>
<p>Do not support any new developments that will displace or negatively impact CIC or long term sustainable industries like Horse breeding...</p> <p>...negative impact the mine will have on the local thoroughbred breeding industry and ancillary equine businesses...form part of the Upper Hunter equine CIC.</p>	<p>Refer to Houston Supplementary Expert Report at <b>Annexure 1</b>.</p>

### Shane and Julie McGrath

Personal Impacts  (Shane and Julie McGrath)	Project Impact / Response
<p>Chose to relocate to Scone because of the healthy rural lifestyle it affords. Both from rural backgrounds...children attend the local schools.</p> <p>Should the mine go ahead we will relocate to Sydney</p> <p>Currently renting a house in Scone, desire to purchase a home on hold pending the decision of the mine.</p>	<p>There will be no impacts to the "<i>healthy rural lifestyle</i>" at Scone as a result of the Project. Scone is located more than 35km away from the Project.</p> <p>The Drayton mine has been operating in the Muswellbrook community for over 33 years. The Project is located adjacent to the existing Drayton mine.</p>
<p>Believes Drayton South will have an incredibly negative impact on surrounding industries, especially the horse studs.</p>	<p>As stated in the EIS, the Project as proposed:</p> <ul style="list-style-type: none"> <li>• doubles the buffer distance to protect the horse studs from the impacts of mining as recommended in the Review Report and Gateway Panel Report;</li> <li>• will have no adverse impact on equine health;</li> <li>• will have no impact on the viability of operations at</li> </ul>

<b>Personal Impacts (Shane and Julie McGrath)</b>	<b>Project Impact / Response</b>
	<p>Coolmore stud farm or Darley Woodlands broodmare farm and presents no reasonable justification for either horse stud to consider leaving the Hunter Valley Region; and</p> <ul style="list-style-type: none"> <li>• will have no impact on the viability of the thoroughbred, viticulture or tourism industries, whilst continuing to deliver significant economic benefits to the local region and NSW.</li> </ul>