LOCK THE GATE ALLIANCE

AUSTRALIANS WORKING TOGETHER TO PROTECT OUR LAND, WATER, AND FUTURE

Reply to: Georgina Woods
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Submission: Drayton South Environmental Impact Statement

Thank you for the opportunity to make a submission on the Environmental Impact Statement exhibited for this mining project.

We oppose the project and believe that it should not be given development consent.

The project is a revision of another project that has already been refused development consent. Though the new version is scaled back, we believe the elements that made the previous project unsuitable are the same for this project and the risks and damage that it will do to the environment and economy of the Hunter region far outweigh the expected short term benefits expected to flow from it.

We note that the Hunter Thoroughbred Breeders Association is opposed to this project. The risk that approval and construction of this mine will be the tipping point drives out an industry with deep roots in the region and which provides significant employment should be reason enough to reject the application for consent.

Though the proponent has attempted to scale back the project and amass arguments to counter the studs' opposition, there is no question that the westward advance of mining towards the thoroughbred critical industry cluster is an unacceptable proposition. The proponent cites extensive open cut mining adjacent to the proposal as an argument that this project should also be acceptable, but does not adequately or honestly address the cumulative impact of expanded open cut mining on water, biodiversity and the other land uses and rural industries in the central part of the Hunter region that have had to accommodate mining's relentless advance, and its contribution to increased salinity and air pollution over the last ten years.

There are several major problems with the Environmental Impact Statement, not least of which is this abject failure to address cumulative impacts in any systematic manner, as is required for the *Environmental Protection and Biodiversity Conservation Act*.

Lock the Gate Alliance asks that further development consents, including this one, not be issued in the Hunter until a cumulative impact assessment of the impact of mining approvals on water resources in the region has been completed, including impacts on groundwater-surface water interactions, water quality and water availability and related consequences for other water users and for cultural and ecological water values.

Summary of problems

- A cumulative impact assessment of the mining approvals on water resources in the region, including impacts on groundwater surface water interactions, water quality and water availability and related consequences for other water users and for cultural and ecological water values must be completed before this or any other project goes to the Planning and Assessment Commission for determination.
- A major revision of the economic assessment for this and other coal mining projects is warranted in light of the revelations contained in the Four Corners program "*The End of Coal*?" This EIS uses discredited "input-output" economic analysis and fails to adequately describe the negative economic consequences that will flow from the mine, or honestly address the growing expectation that thermal coal is in structural decline.
- The publicised commitment by the company not to expand the mine in future years beyond the current proposal has no credibility given they are now contradicting statements they made just nine months ago about the viability of this project, and given the sorry history of broken Deeds and commitments from a number of mining companies and Governments in the Hunter Valley.
- Without clear lines drawn between this proposal and the nearby but separate Drayton mine, assessment and determination of this project may legally confuse the proponent's obligations at Drayton, for which a Mine Closure Plan has been submitted but not finalised.
- It is not appropriate for a company to be able to submit an application for an entirely new mine and use that proposal as a means of deferring mine closure activities at another mine they operate nearby. The proposal that Drayton South will utilise some infrastructure at the Drayton mine should not prevent the Mine Closure Plan being implemented. It is imperative that the new Drayton Mine Closure Plan be made available to the public to scrutinise, and finalised prior to the determination of this project.
- More than a quarter of the catchment area for Saddlers Creek will be lost to mining, and the assessment of reduced surface water is not discussed in context with the expected reduction in baseflow to Saddlers Creek from its alluvium during and after mining.
- The company is equivocal about whether it accepts the need to buy surface water licences to account for the loss of flow to Saddlers Creek, using a harvestable right calculation to imply there is no need. This point needs clarification.
- Based on modelling for the EIS, the company expects that the volume of licences required to account for the take will increase *after mining ceases*. This presents a significant risk for the water users of the Jerrys Water Source and New South Wales more generally, given the uncertain future of the thermal coal market and the industry in the Valley. Securing these licences must be a pre-condition of any approval for this project, should it progress that far
- As the IESC identified in their advice on the Project, modelling of the groundwater impact of the project must be redone to include the impacts of the adjacent Mount Arthur mine. As the IESC noted, too, the potential scale of cumulative impacts on Saddlers Creek, the Hunter River and associated alluvium are not able to be assessed on the information so far provided. Such an assessment is crucial as it affects both the quality and quantity of water.
- Criticisms raised by the Gateway panel of the BSAL verification have not been addressed.
- The cumulative impact of recent mining and future mining approvals on biodiversity has likewise not been addressed. We estimate that over 8,400ha of native vegetation has been approved for clearing in the Hunter for mining approvals in the last five years, of which more than half is critically endangered ecological communities. This cumulative impact assessment must be undertaken and strict controls implemented that prevent further losses before any more determinations are made, including for this project.

Economics

The EIS uses the discredited "input-output" analysis to describe the economic effects of the mine on the regional economy and the NSW economy. We note that the NSW Government promised nearly 12 months ago to issue economic assessment guidelines for coal mine developments in response to scathing critique of this "input-output" method by the Planning and Assessment Commission.

The EIS proposes that the export thermal coal price is forecast to improve over time from the current low, but revelations in the ABC's *4 Corners* program on 15 June reveal a more fundamental economic problem that the EIS fails to address, and that is that the thermal coal industry globally is in structural decline, and the assumptions that the NSW Government has made about the economics of mining assessments must change.[1] In general, the economic sections of the Environmental Impact Statement overstate the economic positives flowing from the project and fail to quantify the negative consequences. This must be rectified by the commissioning of genuinely independent economic analysis to look objectively at the economic outlook for thermal coal, the risks and damages posed to other industries by this project, including but not limited to the thoroughbred breeding industry, and a cost-benefit analysis of the proposal.

The proponent has previously and repeatedly stated that the mine could not profitably be made any smaller than the previous development application, which was rejected. Anglo American told the Planning and Assessment Commission in October 2014 that "Further changes to the mine plan and delays to the proposal will make the project financially unviable."[2]

Further, the proponent specifically told the PAC that removal of the Houston mining area and the reduction of the Whynot mining area to behind the ridgeline would make the project unviable,[3] citing the reduced total reserves available to the project. Now they make the reverse argument, that a reduced, 97Mt coal mine on the site can be viable, citing "rescheduling of some significant capital costs" and changes to project design and financial parameters. The company argues now that the project is viable because of the efficiencies of brownfield expansion (which has not changed), the mine being "well positioned on the cost curve" (without specifying the FOB cost of production of the mine), an unsubstantiated forecast improvement in the price for thermal coal and expectation that the Australian dollar will further weaken.

As with all economic assessments for coal mines in New South Wales, assumptions and parameters appear to be massaged to ensure the conclusion the company desires, but in this case, the proponent is on record with contradictory statements from less than 12 months ago. We are not in possession of sufficient information to determine the accuracy of Anglo's current conclusions, and crucial information, like the cost of production per tonne, is not presented in the EIS. But a more fundamental revelation is about the reliability of statements made by this proponent about this mine and its constraints. They have lost their credibility, and the Government must read any commitments this proponent is making – particularly commitments not to expand the mine in future years beyond the current proposal – in light of this lack of credibility.

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[1] To view the program, or a transcript: www.abc.net.au/4corners/stories/2015/06/15/4253096.htm

[2] Anglo American, Presentation to the Planning and Assessment Commission review. Available here: http://www.pac.nsw.gov.au/Projects/tabid/77/ctl/viewreview/mid/462/pac/298/view/readonly/myctl/rev/Default.aspx

[3] Anglo American, Submission to the Planning and Assessment Commission review.

End of life for Drayton mine

We have some concerns that rehabilitation and mine closure at Drayton mine is being complicated by the process of proposing and assessing this project. This project proposes to use facilities at the Drayton mine, and the proponent proposes that the Mine Closure Plan for the Drayton Mine "will be revised to incorporate the new components of the Project, within five years of closure" (7-110).

The proponent states that the project will require a new mining lease, but is equivocal about whether there will be a new Mining Operations Plan for this mine, or a revision of the existing Drayton MOP to include operations in the Drayton South area. In the case of Environment Protection Licence, the proponent intends to vary the existing licence to incorporate this Project. This is not appropriate for a new mine site and may legally confuse the proponent's obligations at the related but separate Drayton mine site.

Under the terms of the Drayton mine approval, the proponent is required to rehabilitate the Drayton mine site in line with the approval for that project. A Mine Closure Plan dated from 2012 is available, but Anglo note in their EIS that they have submitted a new plan, dated December 2014. This does not appear to be available to the public. Regardless, its status is uncertain. It is not appropriate for a company to be able to submit an application for an entirely new mine and use that proposal as a means of deferring mine closure activities at another mine they operate nearby. The proposal that Drayton South will utilise some infrastructure at the Drayton mine should not prevent the Mine Closure Plan to be implemented. It is imperative that the Drayton Mine Closure Plan be made available to the public to scrutinise, and finalised prior to the determination of this project.

Water

A cumulative impact assessment of surface water needs to be properly conducted for both surface water and groundwater that addresses the impacts of the mines approved in the locality of this mine over the last ten years and those that are proposed and under consideration.

As the proponent admits, the Drayton and Mount Arthur mines have already reduced the Saddlers Creek catchment by 13% (7-76) and approved expanded mining at Mount Arthur will see that mine advance westward, taking a further 8% of the catchment. This project will reduce the catchment for the creek by another 5% in its twelfth year of operation. This means that more than a quarter of the catchment area for Saddlers Creek will be lost to mining. We note that further westward expansion of Mount Arthur mine is being considered under the Upper Hunter Strategic Assessment, but that possibility is not considered in this EIS.

The proponent's estimation of the impact on flows into the Saddlers Creek and the Hunter River is not complete or accurate. The company estimates average annual water take from the Hunter Unregulated and Alluvial Water Sources of 114ML (7-78), which they will need to obtain from the Jerrys Water Source. They describe as "negligible" the size of their needs from this source as a proportion of the total (a bit over 1%), but this is a misrepresentation. The Jerrys Water Source includes both surface and aquifer licences, as well as a 7.7GL licence for the power station. Anglo needs surface water licences, which comprise around a fifth of the total volume of water managed in that water source – 2,097ML. That means Anglo's needs are around 5.4% of the surface water volumes managed in the Jerrys Water Source. In addition, it does not appear to us that this estimate of 114ML annual surface take from the Jerrys Water Source has been assessed in the EIS alongside the related reduction in baseflow to Saddlers Creek from its alluvium during and after mining, which will peak at 130ML per year 50 years after mining has ceased. That is more than half of the 245ML per year which the proponent cites as the background rate prior to mining (R-38). The EIS doesn't

clearly contextualise this loss of baseflow within the surface flows of Saddlers Creek, so it is very difficult to determine the significance of this impact. The surface water impact assessment notes that "extended periods of baseflow are evident" in Saddlers Creek (Q-36), so on the face of it, it appears to us a significant impact that has not been assessed adequately in the Environmental Impact Statement. We understand that the average for the Hunter River itself is that 57% of the total flow is contributed by baseflow.[4] This context for Saddlers Creek is needed in the EIS to give an accurate understanding of the significance and severity of the impact the proponent's plans would have.

Anglo states that it will obtain the Water Access Licences it needs, but does not clearly commit that it will obtain licences for the 114ML of take from the Hunter Unregulated and Alluvial Water Sources. In Appendix R, the area of land from which the company's harvestable right is calculated is estimated at its maximum extent (their contiguous landholding of 4,766ha) and the area of land from which their surface water take is calculated as runoff is minimised (162.5ha) to reach the conclusion that Anglo has a harvestable right of 334ML and do not require surface water WALs at all. This argument is not presented in the Main Report of the EIS, so we infer that it may not yet be accepted by the Office of Water. Currently, the company has no licences in the Jerrys Water Source, and according to Table 7-33, they need at least 134ML. Clarification of this need, and the process by which the surface water take was calculated is needed.

The company expects that the volume of licences required will increase after mining ceases. We believe this presents a significant risk for the water users of the Jerrys Water Source and New South Wales more generally and that securing these licences must be a pre-condition of any approval for this project, should it progress that far.

The project proposes to construct a water supply pipeline to the Hunter River, and that under "very dry conditions" will draw water from the Hunter River to supply operations. Anglo states that the project "will" hold the necessary WALs to draw this water. The modelling undertaken for the EIS finds a 1% chance after year 7 of the mine that the combined out of pit water storages will hold no excess water. They estimated that 860-1,000ML will be required in this circumstance.

During the 2003-07 drought at least one mine near Muswellbrook briefly stopped production due to a water shortage and another placed its workforce on notice of potential stoppage unless rain arrived. Anglo American's Water Management Plan for the Drayton mine obliquely refers to the "excessively dry period between 2003 to 2007, when other coal mines in the region were experiencing the effects which resulted in reduction in production levels."[5] Drayton claimed that its own mine water management enabled it to avoid this impact, but circumstances have changed since the Millennium drought. More entitlements in the Hunter are being utilised and extensive open cut coal mining is reducing baseflows and catchment areas for a number of key tributaries and creeks. A cumulative model of the impacts of mining on Hunter water assets is underway by the Independent Expert Scientific Committee as part of the Bioregional Assessment of the Sydney Basin. This information is crucial context for the evaluation of project impacts and determination of this project must wait until that information has been provided.

Given the extent of mining in the area, a cumulative impact assessment of these matters is needed prior to any determination. Specifically, as the IESC identified in their advice on the Project, modelling of the groundwater impact of the project must be redone to include the impacts of the adjacent Mount Arthur mine. As the IESC noted, too, the potential scale of cumulative impacts on Saddlers Creek, the Hunter River and associated alluvium are not able to be assessed on the

[4] IESC. Context Statement for the Hunter subregion. *Sydney Basin Bioregional Assessment*. April 2015.
[5] Anglo Coal (Drayton Management) Pty Ltd, 2010. p.11

information so far provided. Such an assessment is crucial as it affects both the quality and quantity of water.

The IESC noted that "a sub-regional groundwater model including all mines and major water users in the vicinity would better assess spatial and temporal cumulative impacts to water resource and dependent ecosystem in the vicinity of the proposed project." This piece of work is crucial to accurate understanding of the impact of this project and other projects being considered in the area.

No further development consents, including this one, should be issued until a cumulative impact assessment of the impact of mining approvals on water resources in the region, including impacts on groundwater surface water interactions, water quality and water availability and related consequences for other water users and for cultural and ecological water values has been completed.

Land use, soils and capability

The site verification process undertaken by the proponent identified 79ha of land in the project area that meets the criteria for Biophysical Strategic Agricultural Land. This is an onerous test to pass, so a proposal to ruin this land is very problematic for New South Wales' future strategic agricultural and food production capacity.

However, the main report of the EIS fails to clearly report the findings of the Gateway panel, who reported in April that the verification of BSAL in the disturbance area was incomplete, impeding assessment of the full extent of the Project's impact. Furthermore, the Panel expressed concern about the inconsistencies in Anglo's approach to the Gateway assessment, and the removal of Soil Unit 2 from verified BSAL, which reduced the verified BSAL from 218ha to 79ha. Anglo excluded the larger area based on failure to meet salinity criteria, but as the Gateway panel points out, the soil salinity values in two of the three sites reclassified in this way do not exceed the criteria. According to the proponent's method, there are also 318ha of creek flats and lower slopes suitable either for fodder cropping or pasture improvement that will be removed for the project.

The proponent's assessment of the value of these lands is limited and misleading. The EIS uses the current stocking rate and sales to describe the value of the land, rather than the potential value that could be generated, given the capability of the land. It then contextualises this current generated value within the total value of agricultural production in the region, the state and the country, in order to diminish its importance. The proponent compares the direct output value generated by the proposed coal mine ($363million) against the direct annual value being generated by the land in its current use ($0.8million). But the coal mine is only expected to last for 17 years, whereas agricultural production could be sustained for another century, increasing in value during that time. An accurate analysis of the competing land uses, including consideration of the value of the land to the generations yet to come and the potential value that could be generated from the lands, rather than the current value being generated by a tenant of a coal mining company, needs to be conducted.

Biodiversity

The proponent cites "Central Hunter Box-Ironbark Woodland" of which the mine site harbours 477ha, as not listed under the *EPBC Act*. This is not the case. That community corresponds to the "Central Hunter Valley eucalypt forest" community that was listed as critically endangered in May 2015. The EIS anticipates that 150ha this woodland will be cleared for the mine (7-58; Appendix N-4). The EIS must address the new status of this community, particularly given that the Major Projects Offset policy does not allow like-for-like offsetting to be varied for critically endangered communities.

In addition, the mine area harbours 39ha of the critically endangered Hunter Floodplain Red Gum woodland, of which 11ha will be cleared and 94ha of Upper Hunter White Box-Ironbark Grassy Woodland, and will also affect 159 of derived native grassland for that community. There are some inconsistencies in the cited clearing extents. Table 7-27 indicates that 4ha of Grassy White box woodland and 3ha of its derived native grassland will be cleared, but Table 7-30 states that 22ha of this community will be cleared. In total, it's estimated that this project will result in the loss of 1,438ha of native vegetation.

It is known that the Hunter Valley is a heavily cleared landscape, and that 87% of remnants on the floor of the hunter Valley are <10ha in size, and the median remnant size is 1.6ha[6]. This makes all remnants important, including the ones proposed to be cleared for this mine.

The Swift Parrot is known to be present: "Small numbers are known to forage occasionally within the Drayton South area, dependent upon presence of flowering eucalypts" (7-57). This project will result in the loss of 291ha of known habitat for this species (Table 7-30). And the mine will also remove a patch of the Hunter's Weeping Myall population, comprising 15 individuals.

The Federally-listed Large-eared pied bat and Greater long-eared bat have been recorded on the site. Six other threatened bats listed under the TSC Act have also been recorded, including the Eastern cave bat. The assessment states that roosting habitat for the Large-eared pied bat is not available, but there is roosting habitat for Greater long-eared bat. The Environmental Impact Statement admits that the project likely provides "core habitat" for microbats, including roosting sites and "will result in the loss of known habitat as well as potential movement corridors for threatened microbats." (7-60)

Assessment of *EPBC Act* listed matters requires attention and consideration of cumulative impacts. For the threatened fauna and listed communities that will be impacted by this proposal, the proponent has patently failed to provide a cumulative assessment. The section on cumulative impacts comprises five paragraphs. The proponent estimates that based on "proposed mining authorisations in the vicinity of the project" 4,625ha of forest, woodland and derived grassland could be removed. There is no indication of what geographical or temporal reference has been used for this estimate, or whether it includes clearing that has already occurred, is approved but not undertaken, or has been proposed but not approved. We believe in any case that this is a dramatic underestimation of the cumulative impact of mining proposals in the central part of the Hunter Valley.

Here is the true picture. As shown in Table 1, in the last five years, we estimate that over 8,400ha of native vegetation has been cleared or approved for clearing for coal mining projects in the Hunter Valley. Including approvals given since 2004 takes this total to over 11,000ha. A very large proportion of this vegetation is either listed endangered ecological communities or provides habitat for threatened wildlife. We estimate that in the greater Hunter Valley, over 4,800ha of the critically endangered Grassy White-box woodland and derived native grassland has been approved for clearing for mining projects. That does not include the huge areas of good condition remnant of this community cleared for the Maules Creek, Boggabri and Tarrawonga mines in the Gunnedah Basin.

[6] Peake, 2006. "The Vegetation of the Central Hunter Valley, New South Wales. A report on the findings of the Hunter Remnant Vegetation Project." Hunter- Central Rivers Catchment Authority.

Table 1: Vegetation clearing associated with mine projects approved in the Hunter since 2004

Project	Approval year	Total clearing	Grassy White box and DNR	Regent honeyeater/ Swift parrot habitat
Bengalla continuation	2015	881	**535**	**272**
Moolarben Stage 2	2015	1534	123.3	
Bulga optimisation project	2014	611		557
Mount Arthur extension	2012	738	707	738
Mount Pleasant*	2012	2643	2,591	623
Ravensworth Operations	2011	559		624
Integra Open Cut	2010	75	19	
Mount Arthur Open Cut Ext	2010	990	815	
Ulan mine	2010	409	69	
Total approved since 2010.		**8,440**	**4,859**	**2,814**
Wilpinjong	2006	290	50	
Mount Owen 2004 Continuation	2004	96		
Mount Owen	1994	240		
Warkworth	2004	305		
Mount Arthur South Pit Ext.	2007	53		
Moolarben	2007	416	65	
Anvil Hill/Mangoola	2007	1303		
Total since 2004		**11,362**	**4,974****	**Unknown**

Information in this table has been drawn from *EPBC Act approvals*, NSW conditions of consent and Environment Assessment Reports for the projects listed.

* This mine has approval but has not begun construction.

** note that for the pre-2010 mines, some information is no longer available, so there may be more Grassy white box approved for clearing that is not listed here.

In addition, there are literally thousands more hectares of further clearing intended for the next 25 years and being considered under the Upper Hunter Strategic Assessment. Though the details of the 14 mining areas proposed to be given endorsement under that scheme are not yet public, information we have gleaned so far indicates that some expansion areas, such as the further expansions of Mangoola, Bengalla and Warkworth, and the West Muswellbrook project, will involve extensive further clearing of endangered and critically endangered ecological communities. We know that the Upper Hunter Strategic Assessment does not consider the cumulative impact of the over 11,000ha of vegetation that has been approved for clearing during the last ten years of mining, and neither, it appears, does the Environmental Impact Statement for this mine.

The company proposes to protect a series of offset properties, but those offsets do not, by the company's own admission, compensation for the value of the biodiversity being lost for this mine. Given the impact of this project on habitat for critically endangered woodland communities, for threatened bats and the Swift parrot, in the context of the cumulative impacts on these matters that have been and continued to be felt as a result of coal mine approvals, we believe the impacts of this project on Federally-listed biodiversity matters to be unacceptable. The project should not be approved.