

19th May 2017

Submission to Planning and Assessment Commission Review of the Bylong Coal Project

Thank you for the opportunity to make a submission to the Planning Assessment Commission's review of the proposed Bylong coal mine.

Lock the Gate Alliance objects to this proposal. It has already done extensive social and economic damage to the local area and risks extensive and potentially irreversible damage to a productive groundwater source, the Bylong River alluvial aquifer. The mine would cause more than 10 metres drawdown of a constrained productive aquifer that is already heavily over-allocated to water licences. Furthermore, it will directly open cut and otherwise develop land mapped as part of the Hunter Valley equine critical industry cluster. These two impacts in particular are lines that must not be crossed.

The Planning and Assessment Commission must clearly indicate that mapped Strategic Agricultural Land is not appropriate for mining and that impacts on a productive groundwater source that are so dramatically beyond the minimal impact considerations of the Aquifer Interference Policy must not be permitted.

In addition to the agricultural and water resources impacts, there are errors and gaps in the assessment and significant impacts on biodiversity and Aboriginal heritage. In short, the risks and damage of this coal mine far outweigh its purported economic benefits.

Summary of problems and objections

- The mine will cause more than 10 metres draw down of a productive alluvial aquifer. This is an unacceptable impact and it must not be granted consent to proceed.
- The Department of Planning has not applied the Aquifer Interference Policy. It has spuriously assessed the mine's impact on "private bores" (meaning, bores on land not owned by the proponent), rather than, as the Aquifer Interference Policy requires, the drawdown impact at "any water supply work", including bores the proponent has acquired.
- There is still uncertainty about the water impacts and major risks to water security in the Bylong Valley. Approval of the mine on this basis would be reckless and negligent.
- In addition to drawdown, the connectivity between the target coal seam and the alluvium will mean leaching of saline mine affected water from overburden material returned to the pits and poses unacceptable risk to water quality of the Bylong alluvium and river and to groundwater dependent ecosystems.

- This mine would have an unacceptable impact on agricultural land and productivity and must be refused consent for that reason. It will cause the total direct and permanent loss of 319.52ha of Biophysical Strategically Agricultural Land (BSAL), an increase since the Environmental Impact Statement was exhibited. This is simply not acceptable.
- The Assessment Report does not provide an estimate of the area of land owned by the proponent in the Bylong Valley and the current and intended agricultural activity on it. The depletion of people from the district over the last five years represents a profound impact already on agricultural production in the district that has not been assessed by the Department.
- The Department's Assessment of the gross value of agricultural production lost as a result of this project is out of date (they footnote that the value has increased since the EIS was prepared) and fails to include several impacts that the proponent itself has admitted, including the value of agricultural production loss due to the use of irrigation water for the project and the downstream impact on sale yards. It also fails to account for the loss already experienced as a result of the proponent buying productive farms in the region, including an operating thoroughbred stud which has since relocated out of the district.
- Contrary to the clear advice and analysis from the Department of Primary Industries, the lack of stud operations in the Bylong Valley is described in the Assessment Report as a "natural decline." The decline is not "natural" it is the result of the proponent's activities, and yet this loss of economic activity and productive use of the land is nowhere considered in the Department of Planning's Assessment Report.
- We strongly oppose approval of this mine on the basis that any further properties will be affected by noise and air pollution to the extent that acquisition is considered the only "reasonable and feasible" option. This approach is costing landholders in mining affected areas dearly and is damaging health and land values. People with a commitment to a particular area and community are forced to live with intolerable noise or dust impacts or move away. No compensation for this appalling situation is offered by the government despite the fact that it is destroying private property values and the way of life of people that are given no other choice. We urge the Planning and Assessment Commission to reject the Department of Planning's blinkered and biased approach to questions of what is "reasonable and feasible."
- There are a number of exceptional sites of Aboriginal cultural significance that will be lost or damaged as a result of this mine and OEH has expressed concern about the cumulative impacts on Aboriginal cultural heritage from mines in the area.
- KEPCO refused to accept the cumulative impact methodology that OEH uses and made the observation that "OEH does not have set guidelines for assessing cumulative impacts for cultural heritage." This failing on the NSW government's part cannot be the cause of unacceptable cumulative loss of cultural heritage for Aboriginal people in the area.
- OEH has warned of the prospect of "permanent intergenerational consequences" from cumulative impacts to Aboriginal cultural heritage as a result of this mine, in conjunction with the others in the region. On these grounds, consent should be refused for this project.
- The Tarwyn Park property is of major European cultural heritage value, and may soon be listed on the State Heritage Register.

- We are very concerned about the cumulative impact of this and other mining projects in the Western coal field on the critically endangered Regent Honeyeater. This is not a matter given any consideration in the Department's Assessment Report.
- Nobody has bothered to determine if the caves and cliffs that will be affected by subsidence are Large eared pied bat breeding or roosting caves, despite OEH clearly stating that if this were the case, the impact of this species would be significant. This species is listed under the EPBC Act as Vulnerable and its assessment under this project has not be adequate.
- The EPA informed the Department of Planning that it did not support the proponent's proposal to use the Broner low frequency noise (LFN) method in lieu of the low frequency modification factor in the NSW Industrial Noise Policy. The EPA also noted that the proponent made an assessment against some of the low frequency noise criteria in the draft Industrial Noise Guideline, but that this document does not represent current Government policy.
- The proposed major traffic route to the mine site, Wollar Road, is incapable of safely accommodating projected traffic increases.

Justification & strategic context

This proposal is a greenfield mine in a productive agricultural valley that has not before been subjected to mining. As such, there is a higher burden on the Department and the proponent to justify the damage and disruption it will cause. This justification is not evident.

The Justification and Strategic Context sections of the Assessment Report say nothing about the depressed demand for coal and the risk that increased coal production and supply from a new greenfield project actually risks the existing profitability and job security in the Hunter coal industry, because oversupply depresses price and low prices make existing operations marginal. The expected jobs and benefits are reported as if the project were isolated from the broader coal industry and the world energy economy, in which thermal coal is dwindling in importance.

In its review of the nearby Wilpinjong Extension, now granted consent, the Planning and Assessment Commission recommended the development of a "high level strategic vision" for exploitation of coal in the Western coalfields and NSW more generally: "Based on experiences occurring elsewhere in other NSW coalfields, particularly the Central and Hunter coalfields, the Commission considers it important to make reference to the need for a long term strategic plan for the western coalfields. The development of a high level strategic vision for the NSW coalfields, and in particular for the western coalfields, would be of considerable benefit in the assessment of individual projects and would give mining companies, government agencies, investors and the community confidence in the long term strategic direction of mining within the State." (Wilpinjong Review Report). No such strategic planning has taken place, and no large, high-impact greenfield mine development should be granted consent until it has.

The public can have no confidence in the Department of Planning's assessment of the strategic context of this mine, given its failure to consider crucial matters like demand.

In the Assessment Report, the Department of Planning include a section called "Significance of the Resource." This is a reference to a repealed section of the Mining SEPP and its inclusion in the

Assessment Report is inappropriate. It is an irrelevant consideration. In order to link this “resource significance” pitch to extant provisions of the SEPP, the Assessment Report makes oblique reference to section 15, about efficient resource recovery, which is properly a consideration of waste and efficiency, not about the importance of exploiting fossil fuel resources.

The mine justification report makes absurd claims about the environmental impact of not proceeding with the open cut portion of the mine. It is transparently the case that this document was written with a view to finding the greatest possible harm that could be done with an underground only project, while the rest of the documentation has been rewritten so as to downplay the environmental harm of a combined open cut and underground project.

There has been no environmental assessment provided for alternative arrangements for disposal of waste from an underground operation. One option could be a board and pillar mine, thus dispensing with the major subsidence impacts and allowing for disposal of waste back into the pit. This mining option has not been considered at all throughout the process.

We absolutely accept that underground mines do considerable harm, but the Planning and Assessment commission must obtain independent advice on the mine plan justification as the document provided by the proponent lacks the basic objectivity necessary for the PAC to properly complete its work.

It is simply not credible that the current mine plan is, “the result of an exhaustive attempt to balance the environmental impacts of the Project against its economic viability” given that the open cut pit is only 100-200 metres from a major waterway and its productive alluvium, and that this mine will remove hundreds of hectares of BSAL.

The proponent’s wild claims that it was originally considering, “up to seven open cut mining areas and several underground mining domains” show a contempt for wide and deep opposition to this project on the basis of the damage it will do. It is also an ominous indication of what we have to look forward to if this project is granted consent: there will be further open cuts proposed.

The fact that the proponent has spent \$73.85 million acquiring property in the Valley is not a valid consideration for the PAC in its review of this project. Indeed, the acquisition activities of the proponent have done a great deal of social and economic harm in the region, and the fact that so much harm has already been done by a coal mine that has not been approved is a devastating indictment on the adequacy of mining assessment regulations in NSW.

If the project is rejected, there is a strong market for prime agricultural land in NSW. The land could be put back on the market, as has occurred with the unviable and failed Cobbora Mine project.

We have heard these arguments from mining companies about their mine plans before. Anglo American argued three times that its Drayton South mine plan could not be reduced in size and remain economically viable and yet three times it reduced the scale of the mine in response to clear lines being drawn by the Planning and Assessment Commission about the unacceptable impacts the project would have. Here again we have a project with unacceptable impacts, on agriculture and water resources and this time a mining company claiming that the two open cut pits are “critical for the financial viability of the Project.”

This report even goes so far as to claim that South Korean investment confidence would be damaged if NSW decided to protect its strategic agricultural land from open cut mining, and this company decided that it could not proceed with the project on that basis. This is hysterical, and in any case, an irrelevant issue for the PAC.

Agriculture

This mine would have an unacceptable impact on agricultural land and must be refused consent for that reason. It will cause the total direct and permanent loss of 319.52ha of Biophysical Strategically Agricultural Land (BSAL), an increase since the Environmental Impact Statement was exhibited. This is simply not acceptable. The Department's assertion that "KEPCO has designed the project to avoid direct and permanent impacts to BSAL as far as practicable" is absurd.

The proponent has committed to "reinstating" 227ha of BSAL but it appears it has not outlined how this will be done, or demonstrated whether it can be done at all. As DPI Agriculture has commented "simple replacement of soil is insufficient to meet pre-disturbed condition" After all, if replicating fertile agricultural soils were easy, we would have been doing it all these years, wouldn't we?

BSAL land is attached to alluvial aquifer systems. These cannot be reinstated once destroyed. The proposed rehabilitation of the Bylong Mine will not be able to replace lost prime agricultural land associated with alluvial groundwater.

Absurdly, KEPCO is proposing to open-cut a property where the effort and methods required to restore degraded land over decades has been demonstrated. The living laboratory of Tarwyn Park could continue providing an example to agriculturalists around the state and the country for how to regenerate agricultural productivity, but instead, it will be ruined for coal mining.

It is our view that the impact on agriculture has been understated by KEPCO and the Department of Planning. The impact of the mass purchase of land and depopulation of the Valley by the proponent has not been considered. The depressive effect that the uncertainty and land buy-ups have likely had on agricultural production and investment are not considered by the Department but need to be.

Indeed, there is direct evidence of this. In its Supplementary Response to Submissions the proponent states: "KEPCO purchased a single property in 2012 which was being utilised for thoroughbred horse breeding. The operations on this property were subsequently relocated to Denman, closer to the centre of the mapped Equine CIC. This property is not proposed to be directly disturbed by mining activities and remains available for agricultural pursuits, including thoroughbred horse breeding. (SRTS)

The Department of Primary Industries Agriculture clearly indicates that it considers the loss of this agricultural enterprise to be a direct result of the proponent's purchase: "There are no currently operating horse studs in the Project Area because KEPCO has bought the land. Prior to this it was a successful enterprise. This demonstrates that the land is suitable for the equine industry and the rehabilitation objectives should reflect this" (SRTS).

Contrary to the clear advice and analysis from the Department of Primary Industries, the lack of stud operations in the Bylong Valley is described in the Assessment Report as a "natural decline." The decline is not "natural" it is the result of the proponent's activities, and yet this loss of economic activity and productive use of the land is nowhere considered in the Department of Planning's Assessment Report.

DPI Agriculture also raised the impact of irrigation water being redirected for industrial use. The proponent was compelled to estimate the financial impact of this, but the flow-on effect of switching the Bylong Valley from being an agricultural district to an industrial one is not considered. KEPCO

concedes that a further 443ha of land that is currently used for irrigated agriculture will cease to be so even when annual water determinations are at 100%. DPI Agriculture has asked for an assessment of the impact of this, especially in light of KEPCO's indication that agricultural activity will be further scaled back in dry periods, when AWD drops below 100%.

The Department of Planning's "Project Justification" section of the Assessment Report includes only the purported (and disputed) economic benefits of the project, not the direct and indirect economic harm stemming from the switch in land use in the Bylong Valley from agricultural to industrial. This change in land use extends far beyond the mine boundary, as KEPCO's land purchases indicate. The Assessment Report does not actually provide an estimate of the area of land owned by the proponent in the Bylong Valley and the current and intended agricultural activity on it, but it is our view that the depletion of people from the Valley over the last five years represents a profound impact already on agricultural production in the district that has not been assessed by the Department.

The Department's Assessment of the gross value of agricultural production lost as a result of this project is out of date (they footnote that the value has increased since the EIS was prepared) and fails to include several impacts that the proponent itself has admitted, including the value of agricultural production loss due to the use of irrigation water for the project and the downstream impact on sale yards.

The downstream effect on the Mudgee sale yards is a loss of 13% of throughput without the animals from the Bylong Valley, and for Singleton a loss of 9%. Singleton has already experienced a roughly 50% reduction in head numbers as a result of coal activity in the region.¹ This cumulative impact on the beef industry is not considered by the Department of Planning.

KEPCO calculates the lost agricultural value from redirected water use at \$1.2m, but this is done on the assumption that all water not used for mining is used for irrigation. Given that KEPCO has also stated that it is under no obligation to irrigate, this assumption is not sound. The ownership of much of the district by the proponent has had and will have an ongoing depressive effect on agricultural production and investment.

In Appendix E, KEPCO clarifies that "only in the extreme and unlikely scenario that a period of extreme dry coincides with the highest project demand phase (Project Year 3) would a reduction in agricultural water on KEPCO owned properties be required." There has been an observed declining trend on groundwater levels and below average rainfall during the period in which the assessment took place.

Water

This mine is going to have significant and potentially catastrophic impacts on a highly productive groundwater source. The Assessment Report provided by the Department of Planning disguises this impact by improperly asserting that the modelling predicted that "all private bores would be outside the zone of influence of groundwater drawdown and would therefore meet minimal impact criteria specified under the NSW Government's Aquifer Interference Policy" (page 32).

¹ See comments by Singleton stock agent Roger Fuller about head numbers in this article in The Land, 17 January 2015 <http://www.farmonline.com.au/story/3370876/big-coal-crowds-out-cattle/>

By “all private bores”, they mean bores that are not now owned by the mining company. This is completely unacceptable and contrary to the Aquifer Interference Policy, which applies the minimum impact criteria to “any water supply work.”

It is clear from the Assessment Report and the material supplied by DPI Water that there is considerable uncertainty about the long-term impacts of this project and the water security of the mine itself and the Valley more broadly.

The water entitlements held by KEPCO amount to 45% of the total available in the Bylong water source. The expected borefield pumping would require around 33% of the total water allocated in the groundwater source. Given that water users describe the Bylong source as being over-allocated by perhaps 100%², utilisation by the proponent of its half of the total aquifer licences in the Bylong Water Source may deplete the aquifer entirely.

In response to DPI Water’s warning that “water security to the project during extended drought periods remains uncertain and this warrants further consideration by the proponent” (DPI Water Further advice) The proponent has done new modelling and “has agreed that the potential to reduce the availability of groundwater to agriculture during dry years is likely.” This is not surprising, given that “the volume of water required from the bore field to account for potential deficits in surface water could exceed the annual recharge rates.” (AGE 2016 Appendix F)

DPI Water has flatly stated that “the model cannot be relied upon to make satisfactory predictions about reliability of supply to other users...” and proposes “the proponent should commit to proposed make good measures for affected properties at the onset of mining.” They warn that some wells could be rendered non-viable by water table decline as a consequence of the mine. DPI Water said there must be make good arrangements for Eagle Hill and Budden, and that these “must occur prior to an investigation regarding the cause in the reduction of water levels.” KEPCO appear to agree to this for Eagle Hill, but not Budden.

The warnings are stark enough and it would be highly irresponsible to grant consent to a mine that would so dramatically put the water security of a productive agricultural valley at risk.

We are very concerned that the approach being taken by Department of Planning and the proponent will not be able to be rectified. The proponent has stated that it “would accept a Development Consent condition for the implementation of make good agreements to compensate any unforeseen adverse impacts to neighbouring landholder bores determined to be as a result of the Project” but there is a huge amount of uncertainty in the phrase “determined to be as a result of the Project” (Supplementary RTS). In more than one case for other New South Wales coal mines, landholders have been forced to enter into considerable expense and trouble because mining companies, backed by Government agencies, refuse to accept that water loss experienced by water users has occurred as a result of mining operations. There is no statutory framework for this arrangement and it leaves landholders experiencing considerable risk and disadvantage.

KEPCO has proposed additional bores to maintain yields during drought. This is surely only going to compound the problem and demonstrates that the proponent has not accepted that the Bylong water source is constrained.

It is agreed that the available data does indicate in some areas where there is a direct or indirect hydraulic connection between the alluvium and the coal seams proposed to be mined. This means there is significant risk of extensive loss of water from the alluvium but also a considerable risk to the

2 *Pers comm:* this is the strongly held view of every landholder we have spoken to in the Bylong Valley.

water quality of the alluvium. Disposal of overburden and reject coal in the pit so close to the alluvium raises considerable risk of increased salt discharge. This was raised by the IESC, which said that the problem has not been adequately dealt with.

The Supplementary Response to Submissions indicates that the Water Management Plan for the Project will provide “a decision tree for management of groundwater quality. The decision tree will identify appropriate actions should groundwater quality decline and there is potential for a plume of brackish water to move from the open cut mining area into the surrounding environment” (Supplementary RTS). The Department’s Assessment Report admits that “long term leaching from the emplacements through the Permian hard rock into the alluvial aquifer (as is predicted) would result in some increase in salinity in the alluvium.”

The IESC warns that this risk has not been adequately addressed: *The assessment documentation acknowledges the potential for seepage through backfilled pits to have some impact on the salinity of water in the alluvial aquifers adjacent to open cut mining areas, and to the surface waters of the Bylong River and Lee Creek. The assessment:*

- a) *considers impacts on an average annual basis only,*
- b) *assumes no parallel reduction in surface water quality, and*
- c) *does not consider other contaminant transport pathways, such as the potential for seepage from overburden emplacements, via the weathered colluvium, to alluvial aquifers.....*

The assessment documentation states that if saline leachate enters the alluvial groundwater it is likely to be heavily diluted and that contaminants would be removed by natural filtration processes (EIS, Appendix J, p. 6.66). Limited evidence is presented to support these claims, whilst no data is presented to show that the predicted concentrations of contaminants are within safe limits for GDEs or aquatic biota.

This is an alarming prospect and poses considerable risk to landholders, aquatic ecology and the productive Bylong alluvial aquifer. There is insufficient consideration of this problem given by the Department of Planning, and this risk has not been adequately measured against the Aquifer Interference Policy.

KEPCO proposes to hold further discussions with DPI-Water in relation to varying the water allocation sought within the *Water Act 1912* licence application to correspond with the revised groundwater inflow predictions. DPI Water’s communication from November 2016 states “The current prediction for groundwater take requirements from the Sydney Basin-North Coast Groundwater Source is 4100 ML. As the proponent currently holds Water Access Licenses (WALs) for 411 shares and has a valid application equivalent to 2093ML the proponent may need to purchase 1596 shares from the market to make up the shortfall.” We ask the PAC to seek confirmation from DPI Water that this remains the approach the agency will take.

KEPCO respond that the licences they have already applied for are sufficient for up to Year 19 of the mine and claim that “it is likely that the additional water shares (up to the 4,099 ML of groundwater inflow predicted for Project Year 23) may be able to be secured from other users within the water source prior to these impacts occurring.” This is not the case.

DPI Water also say, “The proponent holds 2535 shares in the Bylong River Water Source. It is understood that these shares will contribute to accounting for take of water from the bore field and take of water for agricultural purposes. However these shares will also need to account for passive

take of water via alluvial loss and reduction in baseflow.” This may be 986MLpa in the 99th percentile of peak baseflow loss.

The map of groundwater dependent ecosystems shows the open cut pit crossing over with these areas. This makes the placement of pumping bores 200m from these areas seem redundant. This is an issue raised by the IESC in its latest advice. The IESC stated that “The ecological impacts of the predicted groundwater drawdown have not been adequately assessed. In particular the assessment needs to consider how groundwater drawdown, including associated changes to the groundwater gaining/losing nature of watercourses, may affect recruitment and survival of groundwater-dependent riparian vegetation and the condition and permanence of groundwater-fed pools.”

Noise

We note that the Eagle Hill property is expected to be significantly affected by noise. Though KEPCO has effectively already emptied the Bylong Valley of people with commitment to long-term land management and community we strongly oppose approval of this mine on the basis that any further properties will be affected by noise and air pollution to the extent that acquisition is considered the only reasonable and feasible option. This approach is costing landholders in mining affected areas dearly. It is damaging health and land values. People with a commitment to a particular area and community are forced to live with intolerable noise or dust impacts or move away. No compensation for this appalling situation is offered by the government despite the fact that it is destroying private property values and the way of life of people that are given no other choice. We urge the Planning and Assessment Commission to reject the Department of Planning’s blinkered and biased approach to questions of what is reasonable and feasible, questions the Department invariably views through the same lens as the mining company.

As we submitted to the Environmental Impact Statement, the case is not reasonably made that this mine needs to operate 24 hours a day. The noise and social impacts of 24 hour operation in previously secluded and quiet rural areas are considerable and warrant more than the scant attention offered by the Department of Planning. We note that the Rocky Hill mine proposal near Gloucester is proposing to not operate overnight, so it is clearly conceivable to operate coal mines in New South Wales with this constraint in mind.

We reject the Department of Planning’s recommendation that landholders be subjected to noise or dust pollution that breaches statutory guidelines unless they agree to be bought out and move. This is a fundamentally unjust and unacceptable practice and we urge the Commission to reject it.

The EPA informed the Department of Planning that it did not support the proponent’s proposal to use the Broner low frequency noise (LFN) method in lieu of the low frequency modification factor in the NSW Industrial Noise Policy. The EPA also noted that the proponent made an assessment against some of the low frequency noise criteria in the draft Industrial Noise Guideline, but that this document does not represent current Government policy.

The very quiet background noise levels in the Bylong Valley will provide no screening of mine machinery noise 24 hrs/day. Remaining residents will be impacted by highly significant increases in sound levels that will be extremely annoying and will impact on the existing amenity of private properties.

Noise from mining in remote rural areas has caused major health problems through sleep deprivation. This problem is significant and has not been recognised. The problems with poorly predicted noise pollution from the nearby Wilpinjong Mine has been the major cause of social decline in the Wollar community.

The current Industrial Noise Policy does not protect rural people from inappropriate noise pollution. The new draft Policy, not yet adopted by Government, proposes to increase noise levels from mining in remote areas.

The extremely quiet background noise levels in the Bylong Valley must be a key consideration for a merits assessment of the KEPCO project.

Subsidence

The longwall part of the project extends almost to the boundary of Goulburn River National Park and directly undermines Bylong State Forest, the Bylong Valley Way and some of the vaulting cliffs that contribute to the scenic, cultural and biodiversity value of the Bylong Valley. Subsidence of over 3 metres is predicted to occur under the Bylong Valley Way and less than 500m from the National Park. Rock falls are predicted to occur along up to 20% of the cliffs and visible subsidence may occur along up to 50-70% of the cliffs. KEPCO refused to comply with a request from OEH to shorten longwall 106 to avoid impacts on "Cliff 5" which has a height of up to 40 metres and a length of 273 metres. There is little evidence that the proponent has studied the usage of these cliffs by cave-dwelling bats or their cultural significance.

These clifflines also provide prime habitat for the nationally endangered Brush-tailed Rock Wallaby, which has not been assessed for.

Aboriginal cultural heritage

The Assessment Report's claim that "The project is not expected to result in any significant cumulative impacts with other mines in the Western Coalfields" is flatly contradicted by the concern raised by OEH concerned about "permanent intergenerational consequences" that may result from cumulative impacts to Aboriginal cultural heritage as a result of this mine, in conjunction with the other mines in the region.

OEH says that notwithstanding the mitigation actions of this mine proposal and the other mines in the region "OEH remains concerned about the threshold of harm that is now encroaching on [Aboriginal cultural heritage] generally from expanding mine interest in the region."

OEH recommends a regional rock art study and KEPCO has agreed to undertake a specialist study "post-approval." This is not acceptable. All relevant studies must be completed prior to determination because they must form part of the Commission's consideration of the project.

KEPCO made the observation that "OEH does not have set guidelines for assessing cumulative impacts for cultural heritage." This failing on the NSW government's part cannot be the cause of unacceptable cumulative loss of cultural heritage for Aboriginal people in the area.

KEPCO refuses to accept the cumulative impact methodology that OEH uses. It also argues that there are vast areas of land in National Parks & Nature Reserves which it is likely “could contain similar densities of Aboriginal heritage sites as those which have been surveyed” (Appendix E). This is pure speculation on KEPCO’s part and a fundamental misprision of Aboriginal cultural heritage, which inheres in the landscape.

European cultural heritage

The State Heritage Council is currently considering listing the world-famous Tarwyn Park property on NSW’s State Heritage Register.

The NSW Department of Planning’s March 2017 Assessment Report of the Bylong Project says that the project “*would directly impact a part of the Tarwyn Park property, which is partially located within the footprint of the open cut.*”

NSW OEH – in their submission on Tarwyn Park to the State Heritage Committee³ – stated that Tarwyn Park may be of state significance:

- for its role in early settlement of the Central West, first settled by William Lee of Bylong Station;
- for its continuous connection to thoroughbred horse breeding and the development of the horse racing industry;
- due to the century-old Tarwyn Park stone homestead and associated stone stables which are excellent examples of the Federation design work of respected architect Harold Hardwick, and together with the other outbuildings, round yards and training track demonstrate the areas continuous association with thoroughbred racehorses;
- for the technical achievements of Peter Andrews OAM who developed Natural Sequence Farming on the property. His methods as practiced at Mulloon near Braidwood have been selected in 2016 by the United Nations as one of only five global model projects of the UN Sustainable Development Solutions Network

NSW OEH notes that the State Heritage Register includes only one precinct listed for its agricultural research significance – Grantham Poultry Research Station (former) SHR 01382.

Lock the Gate Alliance does not believe that mining and the preservation of the state significant heritage can co-exist in this location.

Biodiversity

We are very concerned about the cumulative impact of this and other mining projects in the Western coal field on the critically endangered Regent honeyeater. This is not a matter given any consideration in the Department’s Assessment Report.

3 <http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/heritagecouncil/shr-committee-minutes-oct2016.PDF>

Regent honeyeater was not recorded but assumed to be present in the EIS and agreed to be significantly impacted. The record of a breeding pair with fledglings during the Mt Penny Mine assessment was not acknowledged in the EIS. The mine would remove 180ha of habitat for this species. It is alarming to read that with no additional offset areas proposed, the shortfall of Regent honeyeater credits that was previously identified at the Response to Submissions phase has been eliminated. This has occurred because of a change made to the Threatened Species database that was apparently made last year. In the response to OEH in Appendix B of Appendix E, Part 1 KEPCO explains that the Regent Honeyeater's profile was changed to "as per veg type" and that as a result, the offset credits for this species are now no longer calculated on a species credit basis but by using plant community types (PCT) as a proxy. This is directly contrary to OEH's previous advice about this species: "Species credit species identified within the OEH Threatened Species Profile Database are those that cannot reliably be predicted to occur based on PCT, distribution and habitat criteria. As such, the occurrence of a particular PCT linked to the Regent Honeyeater does not necessarily imply that habitat is present within the PCT." Contrary to this advice, OEH are now calculating Regent honeyeater offsets passed on plant community types.

Despite the fact that the Govt's policy is founded on the understanding that Regent Honeyeaters cannot reliably be predicted by vegetation type, OEH's assessment against the bilateral agreement requirements absurdly states that the 180ha being cleared for this project is 0.4% of the "habitat" for this species in the surrounding region, based on the vegetation types in the area.

We note, too, that more than 40% of the credits generated for the Regent Honeyeater come from Offset Area 5 which is in the area predicted to be severely affected by subsidence from the longwall part of this project. This, too, was previously a concern raised by OEH, which stated in its previous submissions that, "OEH remains concerned that OA5 is not an appropriate offset property as it will be subject to damage from the surface cracking and subsidence effects of this project proposal. Furthermore, Section 11(1) of the *Threatened Species Conservation (Biodiversity Banking) Regulation 2008 (BioBanking Regulation)* indicates that the land in OA5 is not suitable to be designated as a BioBank site."

The whole situation with biodiversity offsets for coal mines in New South Wales is a disgrace.

The EPBC assessment provided as Appendix K notes that there was no analysis undertaken of the impact of the project on Regent Honeyeater, despite this being an "impact for further consideration"

OEH's assessment of MNES does not mention the critical habitat mapped in the Recovery Plan for the Regent Honeyeater. The Plan quite specifically states that "Any breeding or foraging areas where the species is likely to occur" including the area where this project occurs, is "critical to the survival" of this species. Indeed, the Mudgee-Wollar area is specifically mentioned, and the Plan says that, "It is essential that the highest level of protection is provided to these areas and that enhancement and protection measures target these productive sites."

The Large eared pied bat, also an EPBC listed species was recorded and is expected to experience a significant impact. The mine will remove 56ha of breeding habitat. The assessment fails to address the potential impact of the loss of a cave roost site and no one has apparently surveyed the cliffs and caves that will be subjected to subsidence to determine if it is breeding or roosting habitat. OEH has stated that "The impact of this would be of much greater importance than can be measured using habitat within a specified distance of cliffs... If a roost or breeding site for this species was found further measures would be required for this species." OEH claims that the fact that this impact is not expected until year 8 gives "time to check for roost or breeding sites prior to any impact" but

modification of a consent cannot be initiated by DPE after approval. Similarly, the EPBC Assessment provided in Appendix K states only that “in OEH’s opinion there is the potential for subsidence to impact breeding or roosting cave habitat if present. If this was to occur then this may be a significant impact.”

Traffic

The only route to the Bylong project identified as available for oversized and overmass vehicles and the majority of construction and operational traffic movements is through the Munghorn Gap Nature Reserve on Wollar Road and through Wollar Village.

The risk assessment and road capability audit for the Wollar Road west of Wollar village is entirely inadequate. Previous road safety audits conducted for the Wilpinjong Mine came to the conclusion that this route was in poor condition and not suitable as the main access route during mine construction. Wilpinjong was granted a post approval modification to reroute all mine traffic away from the Wollar Road.

The emphasis on the sealing of Wollar Road to the east between Wollar and Bylong does not take into account the safety risks on the western section of Wollar Road.

We note a draft condition that, if approved, construction at the mine cannot commence until current roadworks are completed. The same condition should be placed on the western half of Wollar Road that needs considerable remediation before it can safely carry oversized and overmassed vehicles and a predicted increase of 302% in traffic movements during construction and 174% during operations.

The most recent road safety audit for the Wollar Road has identified significantly high safety risks. The people from the Wollar area have been forced to use this road more regularly because of loss of services in the Wollar village due to social impacts from Wilpinjong Mine. Increased mine traffic through the area is an additional social impact that has not been assessed.