

17 October 2014

**NSW Planning Assessment Commission Determination Report
Invincible Colliery (07_0127 MOD 4) and Cullen Valley Mine (200-5-2003 MOD 2)
EXPANSION MODIFICATIONS
Lithgow LGA**

1 Introduction

Coalpac Pty Limited (Coalpac) owns and operated the Invincible Colliery and Cullen Valley Mine, located approximately 25 kilometres northwest of Lithgow. The town of Cullen Bullen sits between the two mines, which are to the south east and north west of the town respectively. The mines are located primarily within the Ben Bullen State Forest which has well-established native woodland, sandstone cliff lines and 'pagoda' geo-heritage formations. The Gardens of Stone National Park is located approximately 2km north of the site and forms part of the Greater Blue Mountains World Heritage Area.

2 Background to the proposals

The Cullen Valley Mine was originally approved in 1997, but currently operates under a 2004 Ministerial consent (DA 200-5-2003). The Invincible Colliery currently operates under a 2008 Ministerial approval (PA 07-0127) however accessible coal reserves have recently been exhausted. Both mines were placed on care and maintenance in 2013. While the existing Cullen Valley Mine consent allows for the extraction of additional coal (including an additional open cut pit), the owner claims that economically recoverable coal resources have been exhausted.

2.1 Coalpac Consolidation Project 2010

In October 2010, Coalpac submitted a project application (10-0176) for a major expansion of the Invincible Colliery and Cullen Valley Mine, known as the 'Coalpac Consolidation Project'. The project proposed the expansion of open-cut and highwall mining areas in Ben Bullen State Forest, and to increase production to 3.5 million tonnes of a coal a year over 21 years. The then Minister for Planning and Infrastructure requested the Planning Assessment Commission (PAC) to review the application and to conduct a public hearing as part of the assessment process. The Review was completed in December 2012, and the PAC recommended that the project should not be approved. The PAC found that the merits of the project were substantially outweighed by the negative impacts that would occur, particularly the:

- health and amenity impacts on residents (dust, noise and blasting); and
- risks to the pagoda structures from blasting and subsidence from highwall mining; and
- flora and fauna impacts (including for species associated with the pagoda landform, clearing of native vegetation and threatened species).

Other issues of significance examined during the PAC Review included:

- potential impacts on water resources for both surface waters and groundwater;
- cumulative impacts from this project, another existing mining project and two known potential open – cut mining projects (Pine Dale Stage 2 Extension and Neubeck);
- inadequacy of rehabilitation as a mitigation strategy for impacts on biodiversity;
- visual scarring of the landscape in the vicinity of the pagodas and escarpments;
- risk to Aboriginal rock shelters;
- increased heavy vehicle traffic on the Great Western Highway; and

- risks for increases in underground combustion.

The PAC also suggested that the economic assessment conducted by Coalpac in its Environmental Assessment grossly overstated the economic benefits of the project.

In June 2013 the then Department of Planning and Infrastructure (DPI) subsequently finalised its assessment of the application and also recommended the project should be refused on the following grounds:

- *“the project would result in unacceptable and irreversible impact on biodiversity;*
- *the project would result in unacceptable and irreversible impact on natural features of special significance;*
- *the site is not suitable for the project; and*
- *the project is not in the public interest.”*

On 23 July 2013 Coalpac submitted a revised proposal for the project involving:

- a contraction of the open cut boundary to provide an average setback of 466m from the significant pagoda formations in the south eastern portion of the site;
- a 66 ha reduction in the highwall mining footprint between the significant pagoda formations in the south eastern portion of the site; and
- a revised biodiversity offset strategy for the project.

Following the assessment of Coalpac’s proposed changes to the project, the Department published its Addendum Report on 7 August 2013. The Department resolved that the amended Coalpac proposal did not reduce the environmental impact of the project sufficiently to alter Department’s view that the project should not be approved.

On 20 August 2013, the Department received a joint letter from NSW Treasury and NSW Trade & Investment indicating their strong support for the Coalpac Consolidation Project, and highlighting the adverse implications of not proceeding with the project for both the NSW electricity industry and broader economy. The government agencies were concerned that the PAC Review did not give adequate weight to Mount Piper and Wallerawang Power Stations’ reliance on the coal supplied by local mines.

In a further Addendum Report, dated 26 September 2013, the Department considered the matters raised in the letter from NSW Treasury and NSW Trade & Investment. The Department reconfirmed its previous assessment that the environmental impacts of the project outweighed the benefits and gave further consideration to the following issues:

- *Coal supply: “There is at least 160 Mt of recoverable coal in the immediate vicinity of the power stations, which represents more than 25 years of supply”*. In addition, the Department believed that suitable alternative sites with coal resources could be developed with far fewer environmental impacts than the Coalpac Consolidation Project.
- *Electricity Price:* In relation to the claim that retail price for electricity in NSW would likely be increased by 4-12% if the project was not approved, the Department was of the opinion that the relatively low contract price established between Coalpac and Energy Australia was being used as a reason to justify significant environmental impacts on the site. *“The Department believes that the market should be allowed to determine the supply and demand for coal, and these commercial arrangements should not be the primary consideration in the merit assessment of the project”*.
- *Environmental impact:* the Department considered that the site is fundamentally unsuitable for such a large scale open cut mining proposal. The project involved ‘contour strip’ mining along

the base of the large pagoda rock formations that would create a series of fragmented vegetation remnants or habitat islands that would have limited biodiversity value.

- *Economic considerations:* Cost benefit analysis is a useful tool, but the Department “does not believe that it should be the determining factor in any merit assessment of particular projects”. It also noted that other alternatives had not been exhausted and there were a range of alternative coal reserves in the region that could be extracted to supply local power stations.

Following this outcome, the application was withdrawn by the Proponent, prior to it being determined. Nonetheless, the final Director General’s Report, dated 4 October 2013, suggested that some smaller extension that avoids the more sensitive parts of the site may have some merit as it would enable some of the remaining resource to be extracted, the existing mine voids to be filled and appropriately rehabilitated and a suitable landform created to integrate with the surrounding landscape.

3 Current Applications

In March 2014 the Department of Planning and Environment (DPE) received two modification applications from Coalpac seeking to modify the existing approvals for the Invincible Colliery and Cullen Valley coal mines, under Section 75W of the *Environmental Planning and Assessment Act 1997*. The DPE has completed its assessment and recommended that the proposed modifications be approved subject to certain conditions.

The Proponent is seeking to modify its existing project approval for the Invincible Colliery to:

- extend the life of the project until December 2020;
- extend the area approved for open cut and highwall mining by 88ha and 86ha respectively;
- construct a water pipeline to enable transfer of water to and from the Cullen Valley Mine; and
- rehabilitate the site.

The modification to the Cullen Valley Mine seeks to:

- extend the area approved for open cut and highwall mining by 62ha and 79ha respectively;
- transfer water to and from the Invincible Colliery; and
- rehabilitate the site.

The Proponent claims that these expansions would allow Coalpac to access a coal resource of approximately 9 million tonnes and provide employment for approximately 80 people for up to 6 years. The scale of production would not differ from the current project approval and would remain at a total of 2.2 million tonnes per year for both mines.

The proposed modifications would result in clearance of 150ha of native vegetation within the Ben Bullen State Forest. Coalpac is proposing to implement a biodiversity offset strategy comprising both onsite and offsite areas.

4 Delegation to the Commission

In response to the public exhibition of the modification applications and accompanying Environmental Assessment, DPE received a total of 748 submissions (around 75% of the submissions objected to the proposal). On 6 August 2014, after finalising its assessment of the modifications, the Department of Planning and Environment (DPE) referred the applications to the Planning Assessment Commission for determination under the terms of the Minister’s delegation.

Ms Gabrielle Kibble AO, then Chair of the Planning Assessment Commission, nominated Mr Garry West (chair), Ms Donna Campbell and Mr Gordon Kirkby to constitute the Commission to determine the applications.

5 DPE Assessment Report

The DPE Environmental Assessment Report provided an assessment of the key environmental issues associated with the modifications including Coalpac's response to the issues raised during public exhibition (3 April 2014 – 2 May 2014) by public authorities, special interest groups and individuals.

The DPE Report considered the following key issues:

- Landscape and geo-heritage; risks to Pagodas were considered in three broad categories: structural integrity, landscape values and biodiversity.
- Biodiversity including flora and fauna impacts and biodiversity offsets;
- Air quality and dust deposition;
- Noise generated by construction of the water pipeline, road traffic noise and blasting;
- Water resources; surface water and groundwater impacts;
- Rehabilitation and final land form;
- Visual amenity and impact of the proposed bund;
- Sub-surface heating; and
- Aboriginal heritage.

A number of other issues were considered in the Assessment Report including economic benefits, impact on the local road network and greenhouse gas emissions.

DPE recommended that the modification applications should be approved, subject to a strict set of conditions.

The assessment has found that the proposed modifications would:

- result in economic and social benefits, including generating up to 80 jobs and \$29 million in royalties to the NSW Government;
- *“improve the final rehabilitation of both sites by enabling the existing mine voids to be filled and returned to woodland”*;
- reduce the amenity impact compared to the approved operations on both sites as there would be no night time mining operations at either of the mines;
- implement additional visual mitigation measures, such as landscaping treatment to minimise the visibility of the mine and proposed bund on the northern edge of the Cullen Valley mine;
- result in the clearing of an additional 150ha of native landscape; however this would be mitigated in the medium to long term by the rehabilitation of the site and implementation of a biodiversity offset strategy;
- need to include buffers between rock features and open cut mining operations, of at least 100m at the Cullen Valley mine and that the Proponent's proposed 300m setback between open cut mining and the 'significant' pagodas to the east of Invincible would ensure there is no risk to the structural stability of the most significant pagoda formations; and
- include high wall mining that could be effectively managed so that there would be no damage to any rock features or identified sites of Aboriginal cultural heritage significance in the area.

DPE is satisfied that the proposal strikes an appropriate balance between environmental protection and realising the economic and rehabilitation benefits that would flow to the region and the State if the project is allowed to proceed.

6 Site Visit and Meetings

6.1 Visit to the Ben Bullen State Forest

At the Commission's request, representatives from the Office of Environment and Heritage accompanied the Commission on an inspection of parts of the Ben Bullen State Forest around the subject site, including some areas of the pagodas landform complex, on 3 September 2014. During the site inspection the Office of Environment and Heritage reiterated the position put forward in its most recent submission, that it was satisfied with the proposed biodiversity offset proposal but that issues such as the potential impacts to the pagodas and the Broad-headed Snake should be considered by the Department and the consent authority.

6.2 Briefing from the Proponent

The Proponent briefed the Commission on the modifications, at the Invincible Mine site on Wednesday 3 September 2014. The Proponent:

- emphasised that the economic feasibility of the current proposal relies on both mines being expanded and operational so that the coal can be blended to meet the specifications for the local power station.
- indicated that the location of proposed high walls is usually the physical limit to which a mine can expand. They explained that the proposed open cut is limited to areas adjacent to existing voids in order to facilitate easier backfilling and rehabilitation.
- advised it is committed to filling the voids but in order to undertake that work they claim that they need overburden material from the mine expansion.
- emphasised its ability to control the blasting and subsidence impact.
- indicated that it would protect and enhance 1400ha of land included in the biodiversity offset. They are willing to work with Lithgow environmental group and other community groups to alleviate any concerns that may arise from the mine expansion.

6.3 Site Visit

The Commission visited the both the Invincible and Cullen Valley mine sites on Wednesday 3 September 2014 accompanied by the Proponent.

The following key points were discussed during the inspection: proximity of proposed future mining to geo-heritage 'pagodas'; biodiversity rehabilitation work; aesthetics landscape values and location of proposed bunds; the effect of sub-surface heating, surface water impact and drainage/transfer from one site to another and Aboriginal heritage.

6.4 Lithgow City Council

On 3 September 2014 the Commission met with representatives from Lithgow City Council to discuss the Council's views on the project.

The Council considers the amended proposal for the expansion is more appropriate than the previous Coalpac Consolidation Project, especially restricting the operation to during the day only. In relation to the Voluntary Planning Agreement (VPA), Council stated that it plans to use the money collected for the sewage system in Cullen Bullen, but acknowledged that this VPA would not cover the whole cost of the system. If the additional grants needed to pay for the sewage system are not

available Council suggested it would give priority to allocating the funding to other local projects in the area. Council is generally satisfied with the proposed VPA.

6.5 Public Meeting

On Wednesday 17 September 2014 the Commission held a public meeting to hear the community's views on the DPE Environmental Assessment Report and Recommended conditions at the Cullen Bullen Progress Association Hall.

The meeting was well attended and filled the hall. Speakers included a Council representative, special interest groups including Energy Australia, environment groups and members of the local community. A list of those who spoke is provided in **Appendix 1**.

The Commission heard comments both for and against the proposal.

Key issues raised in support of the proposal were:

- Employment opportunities, particularly highlighting:
 - the need for employment, especially given the job losses sustained in the local community since the mines closed. It was noted that the job losses have had a detrimental impact on local families; former workers are having to travel much further afield for work; some remain unemployed and there are mental health impacts associated with unemployment; and
 - the limited alternative employment opportunities in the region.
- Economic and Social benefits, including to:
 - the Cullen Bullen community, noting local businesses (including the local hotel, shop and post office) have lost many of their customers since the two mines ceased production and are now on the verge of closing;
 - the broader Lithgow community noting, the mines contribute to the community and help fund infrastructure and road upgrades and that mine employees support and contribute to local organisations and businesses;
 - Lithgow City Council, through the provision of contributions in the Voluntary Planning Agreement; and
 - the State and people of NSW through the provision of royalties and the increased competition in the local coal market and resulting electricity price benefits.
- Other Economic and Social considerations, including:
 - that there is no demand for housing in Cullen Bullen so it is difficult to leave; and
 - that there are limited alternative local employment opportunities and it was said that there is no real opportunity for tourism here.
- Minimal impacts, particularly suggesting that:
 - there is no adverse impact on farming;
 - there are historical underground workings that have been solid for 60 years;
 - the worst impact on the visual effect of the scenic landscape has already been done;
 - Lithgow has always been a mining area and pollution was worse 30 years ago; and
 - the impacts of this proposal are significantly less than those of the previous Coalpac Consolidation Project.
- the Integrity of the Proponent, indicating that Coalpac readily assisted residents when concerns were raised in the past and is a responsible company;
- Impacts in the area have been wrongly attributed to mining, it was suggested that subsidence in the region is due to clay based soils not because of mining;
- The proposed mining method is sensitive to the location, noting the proposal is not for broad acre mining, it is contour mining; and
- Location, noting the area is a State Forest, not a National Park.

The key issues of concern from those speakers who opposed the proposal included:

- the Pagoda structures and landform, noting the significance of the features and the impacts of mining, including,
 - the pagodas are said to be of international significance. The pagodas cannot be considered in isolation, all components of this landform (towering rock faces, slopes and valley floors) contribute to the overall significance of the pagoda landform complex. Any disturbance to any of the components of the landform complex can have negative impact; and
 - impacts of highwall mining on the geo-heritage rock formations known as ‘pagodas’ (not only on cliff lines, but surrounding valley floors as well). DPE has agreed to a reduced buffer zone from 300m to 100m which is considered inadequate and unacceptable;
 - impacts to the pagodas would be irreversible;
- Biodiversity values and flora and fauna, particularly noting the high biodiversity values of the area, the loss of feeding habitat for species potentially occurring in the pagoda landforms;
 - the area was said to be unique, being the only mapped area to have the Ben Bullen Range Pagoda Unit, the Tablelands Grassy Woodland Complex Unit and the Cullen Plateau Unit present within relatively close proximity to one another;
 - the biodiversity in the rehabilitated areas cannot replicate the pre-mining biodiversity in the forest and woodland areas;
 - the flora assessment in the Coalpac submission was also said to be unacceptable; and
 - biodiversity offsets were said to be inadequate and not ‘like for like’;
- Rehabilitation, claims for future successful rehabilitation are unrealistic; concerns about the lack of progress in completing current rehabilitation – only 28% done. What guarantee that voids will be filled? It is an irrational conclusion that there should be more mining to be able to rehabilitate;
- Water impacts, including surface and groundwater quality and quantity, and that new evidence shows detrimental impact of the chemical discharges from the mine on water quality and biodiversity;
- Health and amenity, including impacts from dust, noise and blasting and associated health impacts. NSW Health’s submission to the original proposal was referenced. The region is said to have the worst health statistics in the State reflected in double the rate of asthma sufferers and 30% higher birth mortality rate. Additional dust monitoring around the mine was called for, should the proposals gain approval;
- Safety issues, including combustion and explosion risks should the mine intercept old workings;
- The planning process, noting:
 - The PAC previously rejected the Coalpac proposal; this is an attempt to carry out a previously determined ‘unacceptable’ proposal in stages, through development creep;
 - The Department previously said the highest and best use of the site was for conservation and issues of significant concern then, seem to be less concerning in this current assessment; and
 - It was not considered fair to have to fight against something that was rejected previously;
- Voluntary Planning Agreement, how will developer’s financial contribution (through the Voluntary Planning Agreement) be spent? Local community should be involved in the decision making process on how the money is allocated;
- Social and Economic, including,
 - Employment - that the proposal could cause loss of employment at other local, operational mines such as Angus Place; that the proposal would only provide very short term jobs; that the jobs may not go to local people, that the area needs to diversify its

economy; and that there are alternative sustainable tourism opportunities that should be explored and would be incompatible with this mining activity. In support of the argument for tourism instead it was suggested the area is more impressive than the Three Sisters, is popular for recreation and that risks to the pagodas combined with the visual impacts of mining are limiting options to develop a tourism industry (which would create more sustainable employment opportunities than short term mining jobs);

- Environmental costs have not been factored into the cost benefit analysis, assumption that the key benefit of the proposed modifications is cheaper electricity is flawed. Wholesale energy market is grossly oversupplied. Energy Australia will not pass on savings in coal prices to consumers. By allowing the project below-market priced coal, royalties are not paid on the full value of the coal, representing a loss to NSW Government;
- Impacts on agriculture, noting that a local hazelnut orchard could be impacted by dust (as hazelnuts are wind pollinated), as well as concerns about impacts to water supplies;
- Major impact on the Greater Blue Mountains World Heritage Area in terms of visual impact on a major visitor gateway to the area;
- Coal resource, is of a poor quality, there are said to be adequate stockpiles and additional coal can be supplied from other existing mines and that these other mines have better infrastructure (such as haul roads) and long term prospects of continued mining; and
- Greenhouse gas emissions from the mining and burning of the coal, and resulting contribution to climate change.

A number of written documents and speaking notes were received by the Commission after the public meeting. These reiterated issues raised in the submissions and at the public meeting.

7 Commission's Consideration

The Commission has considered the DPE Assessment Report for these expansion modifications, the findings and recommendations of the PAC Review of the Coalpac Consolidation Project, the Department's previous assessment report on the Coalpac Consolidation Project, conditions of the current development consent, the Department's recommended conditions of modification and associated documents, including submissions from Lithgow City Council, agencies and the public, and the Proponent's response.

The two mines sit within the Ben Bullen State Forest and adjoin areas of high biodiversity value, with a wide diversity of vegetation associations and very high species richness. Unique and varied escarpment and rock formations are a feature of the area, they provide important habitat and are also of high scenic value.

The importance of this area's conservation and scenic values were highlighted in the PAC Review of the Coalpac Consolidation Project and by the Department of Planning and Infrastructure (now DP&E) in its assessment of the Coalpac Consolidation Project, and subsequent addendum reports. The Commission has given these previous findings careful consideration. These previous assessments from the Department and the PAC are thorough and robust.

The Commission supports the precautionary approach adopted by these previous assessments. In reaching its decision, the Commission has considered each key issue raised by these applications in the context of the relevant findings and recommendations made by the PAC and the Department in 2012 and 2013 respectively together with any new evidence relating to that issue.

The key issues with these modification applications, and the findings and recommendations made on these issues previously, are discussed in the following sections.

7.1 The Pagoda Landform Complex

The impacts on the pagoda rock formations and surrounding landscape was a key concern raised by objectors at the public meeting and in submissions. Descriptions of the Pagoda Landform Complex and consideration of its significance are covered in detail in the PAC's Review Report and in the Department of Planning and Infrastructure's assessment of the previous Coalpac Consolidation Project.

In short, the PAC's Review of the Coalpac Consolidation Project found that:

- *"the pagodas cannot be considered as structures in isolation. ... they are part of a landform consisting of multiple pagoda structures and intervening sections of cliffs, with steep slopes and dissecting gullies below";*
- The pagodas are *"a unique landform on a world scale...";* have limited distribution, *"provide critical habitat for some flora species and key habitat features for threatened fauna";* and *"contain significant items of Aboriginal cultural heritage";* and
- *"the pagoda landform should be afforded special significance status and the highest possible level of protection".*¹

The PAC Review recommended that *"the pagodas and associated escarpments be considered natural features of special significance and that they be fully protected from any mine-induced impacts."*²

In finalising its assessment of the Coalpac Consolidation Project in 2013 the Department agreed with the PAC's findings and recommendation, stating:

*"... the Department believes that the PAC's classification of the pagoda landform as a natural feature of special significance is appropriate and agrees that these features warrant the highest level of protection."*³

*"the Department is satisfied that the only reasonable way to define the pagoda landform complex must include the pagoda rock formations on the plateaus, the wet gullies, and the wooded slopes below the pagodas. In other words, the pagodas cannot be considered in isolation. Consequently, the Department does not accept the definitions used by Coalpac for SPLs [Significant Pagoda Landforms] and Sandstone Outcrops. Instead, the Department believes that the definition of the pagoda landform should be generally consistent with the areas mapped as "pagoda country" by Washington & Wray which includes the various components that make up the pagoda landform complex (i.e. pagodas, gullies, and slopes)."*⁴

The Office of Environment and Heritage (OEH) has also consistently acknowledged the importance of the pagodas. In 2012 the OEH provided mapping of the pagoda landforms and escarpments, as geo-diversity features. This mapping acknowledges all the features, i.e. it did not classify or distinguish the features. The OEH considered a range of potential standoff distances, based on different known habitat requirements.

¹ PAC Review Coalpac Consolidation Project, p 76

² PAC Review Coalpac Consolidation Project, Recommendation 45, p 77

³ Department of Planning and Infrastructure's Coalpac Consolidation Project Director-General's Environmental Assessment Report, June 2013 p 36

⁴ Department of Planning and Infrastructure's Coalpac Consolidation Project Director-General's Environmental Assessment Report, June 2013 p 38

The Commission accepts the findings of the 2012 PAC Review, the OEH and the Department of Planning and Infrastructure's 2013 Assessment Report, that the pagoda landform complex is a natural feature of special significance and that the features warrant the highest level of protection, i.e. they should be fully protected from risks of mine induced impacts.

7.2 Risks and Impacts from mining on the Pagoda Landform Complex

The PAC Review identified a number of risks to the Pagoda Landform from mining. These risks were categorised as:

- Risks to structures; from blasting, slope instability, subsidence and highwall pillar failure or other highwall impacts;
- Risks to flora and fauna; including direct impacts, indirect impacts (such as noise, dust and lighting) and destruction of habitat; and
- Risks to the visual value of the pagoda landform; from structural damage to the pagodas or cliffs, proximity of the open cut pits and clearing of forest below the pagodas and limitations to the rehabilitation in replacing key elements of the landform.

The PAC Review gave careful and detailed consideration to each of these risks. Ultimately, the Review PAC recommended that:

- highwall mining not be permitted under the pagodas or escarpment in the project area; and
- *"a minimum setback distance of 300 m be maintained from the open-cut highwall to the pagodas and the escarpments."*

The Review Report explains that a 300m setback would:

- provide a significantly improved habitat buffer for listed threatened fauna species that use the pagoda landform;
- *"lessen the risk to the pagodas and escarpment from blasting and slope instability"*; and
- *"lessen the visual impact on the landform"*.⁵ (emphasis added)

7.2.1 Risks to structures

The current proposal seeks to conduct mining beneath some of the pagoda structures and escarpments (collectively mapped as geo-diversity features by the Office of Environment and Heritage) and open cut mining to 100m from the pagoda structures and escarpments. This does not comply with the recommendations of the PAC Review Report on the Coalpac Consolidation Project.

In considering the potential risks to the pagoda structures, the Commission notes that the PAC Review also recommended that the uncertainties, caveats and qualifications included in the Proponent's proposal should be removed, *"so that the Determining Authority has an unequivocal understanding of what the outcomes will be and the risks associated with them"*⁶.

The Department has considered the risks to structures and accepted an adaptive management regime put forward by the Proponent, contrary to the PAC recommendations for unequivocal understanding of the outcomes and risks. Its Assessment Report states, *"the Department notes that Coalpac has now proposed a comprehensive adaptive management regime to reduce the risks posed by these aspects of its mining operation."*

⁵ PAC Review Coalpac Consolidation Project, Recommendation 47, p 91

⁶ PAC Review Coalpac Consolidation Project, Recommendation 48, p 91

In general, the Department is satisfied with these measures, and accepts that Coalpac could manage its mining operations in a manner that would not pose a significant risk to the structural stability of the major pagoda rock formations on the edges of the proposed open cut mining area.”⁷

The Department has recommended applying conditions requiring:

- the Proponent “*shall ensure that the project cause negligible impacts to the pagoda formations, cliff lines and escarpments surrounding the open cut mining areas*”; and
- highwall mining “*is long term safe and stable*” and “*not result in any measurable subsidence (i.e. less than 20mm of subsidence), to the satisfaction of DRE*”.⁸

The Commission has considered these conditions and Proponent’s proposed blast management response⁹. This blast management response document outlines a proposed ‘non-damaging limit exercise’ to analyse “*the effects of controlled and closely monitored blasts to prove and demonstrate the appropriateness of the 100 mm/s non damaging limit for SPL and Sandstone outcrops*”¹⁰ (emphasis added). This implies that the appropriateness of ground vibration levels of 100mm/s is not currently proven or demonstrated.

According to the Proponent, it hasn’t impacted on the pagoda structures to date. The Commission is not in a position to dispute this, but is not convinced this guarantees that future mining activities would have no impact. The Review PAC reported seeing damage to the pagoda structures from its helicopter inspection, although it is not clear where this damage was seen and it may well be attributable to another mining method and/or operator. During its inspection of the pagoda landforms with the Office of Environment and Heritage, the Commission saw cracking of some rocks (not associated with these mine sites) which it understands are a result of previous mining beneath those landforms.

By their very nature, the geo-diversity features are varied, with different weathering patterns and variations in their mineral composition, density, dimensions and geometry which could all contribute to the relative stability of each component. The Commission is not completely certain that open cut mining has not impacted the pagoda landforms, however even if it were to accept it has not, the Commission considers that there is a risk that some features may be more vulnerable to ground vibration and/or subsidence than others, and that even very low vibration and/or subsidence levels could impact on the integrity of some features. Consequently the Commission does not accept that adaptive management could assure no impact on any feature. Further, no safe setback distance is currently available to the Commission for consideration. The Commission notes that the previous PAC Review recommended a *minimum* setback of 300m, and indicated this would *lessen* the risk to structures. The Commission has not received adequate argument or evidence to satisfy it that any particular setback distance would assure the structural integrity of the geo-diversity features would not be affected by mining.

In relation to highwall mining, the PAC Review recommended “*that highwall mining not be permitted under the pagodas or escarpment in the project area*”¹¹. The Department’s assessments disagree. Further, it seems the Department now accepts the Proponent’s position that some pagoda rock formations are more significant than others and it recommends allowing highwall mining under some pagoda structures and escarpments. The Department’s recommended conditions require that highwall mining not result in measurable subsidence (i.e. less than 20mm of subsidence).

⁷ Department of Planning and Infrastructure’s Coalpac Consolidation Project Director-General’s Environmental Assessment Report, June 2013 p 38

⁸ Department of Planning and Environment’s recommended conditions of approval, p 6 and 13

⁹ Coalpac Consolidation Project Preferred Project Report, Blast Management Response, 9 April 2013

¹⁰ Coalpac Consolidation Project Preferred Project Report, Blast Management Response, 9 April 2013 p3

¹¹ PAC Review Coalpac Consolidation Project, Recommendation 46, p 84

The PAC Review considered the question of whether a subsidence impact of 20mm would be acceptable and questioned the NSW Trade and Investment's Division of Resources and Energy on this point. The DRE did not provide any confirmation that 20mm of subsidence would be acceptable, instead advising that, "*the applicant needs to demonstrate the rock pagoda features will not incur mining-induced damage and most importantly, pillar stability is such that there is no risk of further subsidence after mining is complete*"¹². The Commission is not satisfied that the Proponent has demonstrated the features will not incur any mine induced damage and that there is no risk of further subsidence. The Commission also notes that some of the area has been undermined by previous workings, raising further questions about the long term stability of the pagodas and accountability should an impact occur.

The Department's current position, that some pagoda rock formations are more significant than others, is subjective and inconsistent with its original assessment. As noted in the Office of Environment and Heritage's most recent submission, subsidence impacts could irretrievably damage the geo-diversity features. The Commission accepts the Department's findings that the pagoda landform complex is a natural feature of special significance and that these features warrant the highest level of protection. The Commission does not believe the conditions recommended by the Department represent the 'highest level of protection' for the pagoda landform features. The Commission considers that some risks to the pagoda structures and escarpments are posed from any further open cut or highwall mining towards the pagodas on the two sites. Consequently the Commission considers that these further expansions should not be permitted within the Cullen Valley and Invincible project sites.

7.2.2 Risks to flora and fauna associated with the Pagoda Landform Complex

The PAC Review gave detailed consideration to the flora and fauna associated with the Pagoda Landform Complex and also sought and received further information from the NSW Office of Environment and Heritage. In relation to the Coalpac Consolidation Project, the PAC found that:

- "*The pagoda landform in the project area provides essential habitat components for a number of listed threatened fauna species and is potential habitat for some non-listed species that are of public significance, such as the Superb Lyrebird;*
- *These species use both the pagodas and the lower gully and forest floor areas for their breeding, shelter and foraging needs on either a seasonal or daily basis;*
- *...a full 500m setback (as per TSDP [Threatened Species Profile Database] requirements) would eliminate much of the open-cut... This suggests that open cut mining may not be the optimum use for this area which has high scenic, conservational and recreational value."*¹³

Ultimately the PAC Review recommended that "*to provide adequate protection for threatened species and other fauna that use the pagoda landform, a minimum setback distance of 300m be maintained from the open-cut highwall to the pagodas and the escarpments. This will provide a significantly improved habitat buffer for the listed threatened species that utilise the pagoda landform ...*"¹⁴.

One of the key threatened species considered in relation to the habitat value of the pagoda landforms was the Broad-headed Snake (*Hoplocephalus bungaroides*). The Broad-headed Snake is listed as an Endangered Species in the NSW *Threatened Species Conservation Act 1995*. This species

¹² Mine Subsidence Board correspondence to the Planning Assessment Commission Review of the Coalpac Consolidation Project, dated 7 December 2012

¹³ PAC Review Coalpac Consolidation Project, p 89

¹⁴ PAC Review Coalpac Consolidation Project, Recommendation 47, p 91

is also listed as vulnerable under the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999*.

The Proponent disputes the existence of the Broad-headed Snake in this area. The Commission accepts the OEH's advice that it has been recorded in the area and considers that a precautionary approach is appropriate in circumstances where a threatened species has been recorded in the past. The Commission understands that it is accepted practice in much of the development industry that if a species has previously been recorded in the area, ecologists assume the species is present even if it was not recorded in the surveys undertaken. Having accepted the species is likely to occur; specialists would then be asked to develop management and mitigation measures.

The Australian Government's Department of the Environment webpage for this snake indicates that "*Adult snakes show a seasonal, temperature induced, shift in habitat use (Webb & Shine 1998b). Adults use rocks and crevices as shelter sites in rocky outcrops in autumn, winter and early spring (Webb & Shine 1994). ... In late spring and summer, when temperatures under rocks become too hot for many snakes, adult males and non-breeding adult females move up to 780 m[...]*"¹⁵ *away from sandstone cliffs and were located high up in tree hollows*"¹⁶.

The Proponent proposes to undertake open cut mining to 100m of the escarpments and pagodas. Speakers at the public meeting raised concerns about the impacts of this on the Broad-headed Snake and other fauna in the area. One speaker made the analogy that removing the vegetation on the slopes below the escarpment was like cutting a home in half, leaving only the bedrooms, with no kitchen or pantry.

In 2012 OEH considered a number of setback options against the habitat requirements for species that use the geo-diversity features:

- the Broad-headed Snake was found to move "*between 80 m and 780 m away from sandstone cliffs, with a mean distance of 318m*"¹⁷;
- the Threatened Species Profile Database prescribes "*No loss of breeding or foraging habitat within 500m of cliffs or escarpments*" for the Broad-headed Snake. 500 m is also a consistent requirement for some other threatened species that have potential to occur on the site (certain cave roosting bats and the Brush-tailed Rock-wallaby);
- in describing the options it had considered the OEH noted an optimal buffer would be 500 m as prescribed by the Threatened Species Profile Database.

As noted already, the PAC Review settled on recommending a minimum setback distance of 300m (emphasis added). The Department's 2013 assessment of the impacts on biodiversity did not come to a concluded position on a setback distance from the pagodas, noting that to apply the PAC's minimum 300m setback would be tantamount to refusal. The Department has now considered this issue for these two smaller expansion proposals. The Department has acknowledged that the Broad-headed Snake relies on foraging habitat "*up to a maximum of 800 m from the base of these escarpments*" around the Invincible Mine Site, but has suggested "*the areas adjacent to the Cullen Valley mine do not comprise suitable habitat for the snake*".¹⁸ This is inconsistent with the OEH's latest submission, of 30 June 2014, which continues to raise concerns about the potential impacts on

¹⁵ Department of the Environment (2014). *Hoplocephalus bungaroides* in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed Thu, 9 Oct 2014 17:00:56 +1100.

¹⁶ Webb, J.K. & R. Shine (1997). Out on a limb: conservation implications of tree-hollow use by a threatened snake species (*Hoplocephalus bungaroides*: Serpentes, Elapidae). *Biological Conservation*. 81: 21-33, p24.

¹⁷ Office of Environment and Heritage, November 2012 correspondence to PAC Review, p4

¹⁸ Department of Planning and Environment's Assessment Report, 5 August 2014, p30

Broad-headed Snake noting that the survey of suitable habitat for the Broad-headed Snake commissioned by the Proponent¹⁹ did identify an area adjoining the Cullen Valley mining extension area, see Figure 1.



Figure 1 – Extract from (White 2013) showing (in pink) the areas identified as suitable habitat for the snake near the proposed Cullen Valley mine extension area

The Commission acknowledges that this area of habitat shown in Figure 1 appears to be positioned on the northern and eastern side of the escarpment, rather than on the western side immediately adjoining the extension area. Nonetheless, the Commission notes that nearly the entire top part of the pit is within 780 m of the northern most point of suitable habitat identified in Figure 1. Further, the Commission understands that other threatened species and fauna use the pagoda landform complex, not just the Broad-headed Snake.

Ultimately, in its previous assessment of the Coalpac Consolidation Project the Department found that the pagoda structures (or rock formations) cannot be considered in isolation. The assessment found that *“the pagoda landform complex consists of 3 distinct components, the significant rock formations known as ‘pagodas’; the wet gullies between the pagodas; and the drier slopes below the pagodas”*²⁰. The Department even went so far as to say *“that the definition of the pagoda landform should be generally consistent with the areas mapped as “pagoda country” by Washington & Wray which includes the various components that make up the pagoda landform complex (i.e. pagodas, gullies, and slopes).”*²¹ The Commission accepts these findings.

These proposed mine expansions now before the Commission would remove native vegetation and habitat on some of the slopes and aprons associated with the pagoda landscape complex.

7.2.3 Impacts on the visual character and significance of the Pagoda Landform Complex

Although the PAC Review recommended a minimum setback distance of 300m to the pagodas, the Review also found that the visual impacts associated with the Pagoda Landform *“would be significant and sustained over very long periods”*. The PAC Review noted that:

¹⁹ White, A (2013). Assessment of Habitat for the Broad-headed Snake *Hoplocephalus bungaroides* Coalpac Consolidation Project – Contracted Project, *Coalpac’s Response to PAC Merit Review, Appendix G*.

²⁰ Department of Planning and Infrastructure’s Coalpac Consolidation Project Director-General’s Environmental Assessment Report, June 2013, p 39

²¹ Department of Planning and Infrastructure’s Coalpac Consolidation Project Director-General’s Environmental Assessment Report, June 2013, p 38

“the Proponent has not been able to demonstrate to date that it can open-cut mine in the vicinity of the pagodas without leaving substantial scarring. This scarring significantly detracts from the visual values of the landscape. Substantial reliance is being placed on the rehabilitation of the scarred areas with native vegetation. However, even shrubby cover takes more than three years to establish and there is no guarantee that mature stands of native forest can be maintained on the rehabilitated landscape because of the radically altered nature of the deeper soil profile and the altered hydrology. There is also acknowledgment by the Proponent’s consultants that the current vegetation associations present in the vicinity of the pagodas cannot be replicated.”²²

The Commission acknowledges that these current mining extensions sought are said to facilitate the rehabilitation of the existing mining voids on the site, which could potentially improve some of the existing aesthetic and view impacts. Nonetheless, this mining would further encroach on the pagodas and as discussed in section 7.5, the Commission is not convinced that the Proponent’s apparent inability to rehabilitate the mine sites in accordance with the conditions of approval is an appropriate justification for allowing additional mining. Further, the Department previously found that rehabilitation of the mine site may not be adequate mitigation for removal of slopes below the pagodas²³.

In the Department’s current assessment it has compared the impacts of these extensions to the much larger project and associated impacts of the previous Coalpac Consolidation Project. Inevitably, the Department has found the impacts of this proposal would be much smaller. The Department also suggests that landscape and visual values of the areas in the immediate vicinity of the mine sites have already been affected by existing mining operations and these proposed modifications would not significantly change these existing impacts.

The Commission has assessed the proposal on its merits rather than against some alternative application that was found to be unacceptable. The Commission acknowledges that the visual character of the landscape around the mine sites has already been impacted by the existing mining activities. Nonetheless the Commission considers that the proposed further encroachment of mining towards and into the pagoda landform complex would only worsen the existing impacts. The Commission considers that the proposals would significantly impact, if not destroy, the aesthetic and visual values of the pagoda landform in the areas proposed to be mined, at least in the short and medium term.

7.2.4 Conclusions on the Risks and Impacts to the Pagoda Landform Complex

The Proponent has not provided adequate evidence to convince the Commission that the findings and recommendations of the previous PAC Review and the Department’s 2013 Assessment should be varied, or to address the uncertainties identified in those documents.

The Commission considers that some risks to the pagoda structures and escarpments are posed from any further open cut or highwall mining towards the pagodas on the two sites. Consequently the Commission considers that these further expansions should not be permitted within the Cullen Valley and Invincible project sites.

The Commission has also found that the proposed open cut mining would intrude into some areas of the pagoda landform complex. Further, the mining would remove areas of habitat that adjoin the pagoda landforms and are important for some fauna species that use the pagoda landform complex.

²² PAC Review Coalpac Consolidation Project, p 71

²³ Department of Planning and Infrastructure’s Coalpac Consolidation Project Director-General’s Environmental Assessment Report, June 2013, p 43

The mining would also impact on the landscape character and scenic values of the area, including views of the pagoda landforms. The Commission considers that these represent significant impacts to those parts of the pagoda landform complex around the proposed open cut mining areas (and allowing these impacts would not represent *'the highest level of protection'*) and, consequently, should not be approved.

7.3 Suitability of the site

In its previous assessment of the Coalpac Consolidation Project, the Department found that, *"from a land use planning perspective, the highest and best use of the site should be for conservation purposes"*²⁴. The Commission notes that the Ben Bullen State Forest has been identified as having significant conservation value and the Department's assessment acknowledges that future reservation of the area as part of the Gardens of Stone Stage II National Park has been proposed by various groups for many years. The Department has now indicated that in relation to this smaller mining proposal *it is satisfied that in the long term a landscape would be created that would not preclude the future reservation of a significant portion of the Ben Bullen State Forest*²⁵.

The Commission has visited the area and heard from numerous speakers and interest groups about the conservation, recreational and scenic values of the area. The OEH's most recent submission also notes that much of the vegetation that would be removed by the proposed mining *"is on the Permian sediments and are highly cleared and poorly reserved"*²⁶. The Commission agrees with the Department's initial assessment that the highest and best use of the area is for conservation purposes and considers that this proposed mining is incompatible with the significant conservation values of the site.

7.4 Significance of the resource and other arguments for the need for the extensions

Both the Cullen Valley Mine and Invincible Colliery have current approvals to mine coal on the respective sites but are on care and maintenance. Coal has not been extracted from the sites since 2013. These modifications before the Commission would allow the Proponent to extract approximately 9 million tonnes of coal over a period of up to 6 years, with ROM coal extraction of up to 1.2 and 1 million tonnes of coal a year from Invincible and Cullen Valley respectively, taking advantage of existing mining, processing and transport infrastructure. The coal is proposed to be supplied to Energy Australia's local Mount Piper Power Station and/or the nearby Wallerawang Power Station (which is not currently operating and has been on standby since March this year).

7.4.1 Significance of the resource

A key issue considered in assessing the previous Coalpac Consolidation Project was the local coal supply and energy price impacts should the mine not proceed. In its assessment of that application the Department found that, while *"the Coalpac consolidation project would provide an important supply of coal to Mount Piper Power Station, it is satisfied that the coal on the site is not essential for NSW electricity supply and that suitable alternatives are available to meet the demand for coal at the Mount Piper and Wallerawang Power Stations in the short, medium and long term"*²⁷. The

²⁴ Department of Planning and Infrastructure's Coalpac Consolidation Project Director-General's Environmental Assessment Report, June 2013, p 5

²⁵ Department of Planning and Environment's Assessment Report, 5 August 2014, p24

²⁶ OEH letter to the Department of Planning and Environment, dated 30 June 2014, p5

²⁷ Department of Planning and Infrastructure's Addendum Report on the Coalpac Consolidation Project, 26 September 2013, p 2

Department did acknowledge that energy prices may be impacted if Energy Australia has to pay more for its coal.

Despite having had these arguments dismissed previously Energy Australia has now indicated that these modifications before the Commission would provide much needed interim coal supply while it seeks longer term supply options for the power stations in Lithgow. The Department's assessment of these modifications also now highlights their importance in reintroducing some diversity into the coal supply market for nearby power stations.

However, as recently as 12 months ago, the Department was indicating that alternative coal is available from other local mines, for the short, medium and long term. Furthermore, since that time the Wallerawang Power Station has been placed on standby (since March this year)²⁸.

On 25 September 2014 Energy Australia wrote to the Commission advising that other local mines, such as Angus Place are yet to receive planning approvals for proposed extensions and suggesting these two modification applications offer the only secure source of coal available in the near term, to sustain *economic* operations (emphasis added). The Commission infers that Centennial Coal owns and operates almost all of the alternative recoverable resources, so it would cost more to source coal from Centennial's mines than from these Coalpac proposals.

The Department has previously argued that commercial arrangements should not be the primary consideration in the merit assessment of a project²⁹. Competition, or the threat/lack of competition, to existing businesses, is not a relevant planning consideration for consent authorities in NSW. In this case, the price of source coal, the profitability of the Mount Piper Power Station and retail electricity prices depend on a number of other factors including the demand for electricity in the National Electricity Market and the international demand for Australian coal.

These mining extensions before the Commission would only be able to supply a very small portion of the coal requirements of the electricity sector, for a small number of years. The Commission considers that the environmental consequences of the proposed expansion of both mines significantly outweigh the impacts on the supply of electricity in NSW resulting from any lack of competition in the coal supply chain for Mount Piper Power Station.

7.4.2 Proximity and availability of infrastructure

In assessing this application the Department has concluded that the proposed mining would maximise the use of existing mining, processing and transport infrastructure. However, in its assessment of the Coalpac Consolidation Project, which included mining in the same locations, the Department found the site's transport infrastructure was inferior to that of alternative mines near the power station noting that *"One of the key advantages of continuing to develop the mines in the immediate vicinity of the power stations is that little in the way of additional infrastructure is required to facilitate the continued delivery of coal. For example [for the Angus Place, Springvale and Pine Dale mines] there are already internal private haul roads and conveyors in place to deliver coal from all three of these mines"*³⁰ [the Commission acknowledges that Pine Dale is now also in care and maintenance]. The Commission understands that coal from the Invincible and Cullen Valley mines would be transported to the power station by truck, including on public roads.

²⁸ EnergyAustralia website <http://www.energyaustralia.com.au/about-us/what-we-do/generation-assets/wallerawang-mtpiper-power-station>, accessed 10 October 2014

²⁹ Department of Planning and Infrastructure's Addendum Report – 26 September 2013, p 2

³⁰ Department of Planning and Infrastructure's Coalpac Consolidation Project Director-General's Environmental Assessment Report, June 2013 p 47

7.4.3 Royalties

The coal produced from these expansions would be supplied to the local power station/s, but royalties would also be paid to the state government on the coal extracted. The Department has indicated this represents a benefit of \$29 million in royalties to the NSW Government. The Commission notes that the supply of this coal to Mount Piper Power Station would reduce the quantity of coal the power station would purchase from other mines. Consequently the Commission considers that it is likely that if \$29 million in royalties is paid for the extraction of resources from this mine, other mines may scale back production, reducing the royalties collected from those mines.

7.4.4 Employment

In relation to the employment generation, the Commission notes that the proposal only represents 6 years of mining, so the jobs created would be short term with very limited security for workers. The extensions would only temporarily delay the inevitable transition which the community of Cullen Bullen will need to make once mining of the coal reserves cease. The Commission also heard from a number of workers from other mines in the region, who were concerned that this mining could threaten the viability of the mines they are employed at, with the potential for greater job losses at those mines.

7.4.5 Merits of a modest extension

In its previous assessment of the Coalpac Consolidation Project the Department foreshadowed that *“it may be possible to obtain approval for a more modest extension involving limited mining to the east of the Invincible Colliery and to the west of the Castlereagh Highway. Such a proposal has some merit in that it would largely avoid the pagoda landform complex, enable the existing mining voids on the site to be appropriately filled and rehabilitated, and create a suitable final landform”*³¹.

The Commission has carefully considered this previous finding of the Department’s that some limited mining to the east of Invincible Colliery and to the west of the Castlereagh Highway may be acceptable. The Commission has been unable to determine which (if any) specific locations the Department was referring to in making these comments. To the east of the Invincible mine are significant pagoda landforms. The area west of the Castlereagh Highway also contains some pagoda landform complex.

In its assessment of the Coalpac Consolidation Project the Department noted three possible benefits to allowing some smaller extension that avoids the most sensitive parts of the site. These were that it would enable:

- *“some of the remaining coal resources to be extracted”;*
- *“the existing mining voids to be filled and appropriately rehabilitated”;* and
- *“a suitable landform created that integrates with the surrounding landscape”*³².

In looking at these three points, the significance of the resource has already been considered in other parts of this section and the Commission’s consideration of the rehabilitation and final landform are including in the following section, section 7.5.

³¹ Department of Planning and Infrastructure’s Addendum Report on the Coalpac Consolidation Project, 7 August 2013, p 9

³² Department of Planning and Infrastructure’s Director General’s Assessment Report on the Coalpac Consolidation Project, 4 October 2013, p2

7.4.6 Conclusions on the significance of the resource and the economic benefits

Ultimately the Commission has concluded that the resource is small, and its extractions would be of limited economic and social benefit. The Commission is not convinced that this small coal resource proposed to be extracted is particularly significant or necessary to the electricity market, although it acknowledges it would add some diversity to the local coal market for Mount Piper Power Station, in the short term. The economic, short term employment generation and royalties from the extensions are outweighed by the environmental costs and impacts of the extensions.

7.5 Rehabilitation

The Department's assessment notes that there are currently six voids across the two mine site's and states *"Importantly, if the modifications do not proceed, it is possible that the existing voids on the site would never be filled and they would become a permanent feature of the landscape. In the Department's view, it would be better to accept the limited short term impacts of further mining in order to achieve a better final landform, than it would complete the rehabilitation now."*³³

The NSW Trade and Investment website for mining³⁴ indicates that *"It is the responsibility of DRE [NSW Trade & Investment – Division of Resources & Energy] to ensure that land disturbed by mining activities is returned to a sustainable post-mining land use."* and that *"Under the [Mining Act 1992](#), DRE has a wide range of powers for regulating rehabilitation including:*

- *environmental management and rehabilitation conditions*
- *rehabilitation security bonds*
- *clear enforcement powers to ensure lease holders comply with their obligations."*

The Commission acknowledges that there may be some very old mining operations which were not captured by requirements for rehabilitation security bonds or other rehabilitation requirements, however the Invincible and Cullen Valley mining operations have relatively modern planning consents that have been issued since 2004.

The existing conditions approved in December 2008, less than 6 years ago, for Invincible Colliery require the site to be rehabilitated progressively and generally consistent with a mapped landform. The assessment report to consider that application stated that *"The project includes the backfilling and rehabilitation of all open cut disturbance within the native woodland vegetation ..."*³⁵ and the assessment found *"The Department and DPI are generally satisfied with Coalpac's proposed final landform and rehabilitation plans, including the reinstated locations for drainage lines and the soundness of the rehabilitation methods that have been proposed"*³⁶. The map of the proposed final landform shows that slopes across the Invincible mine site would be less than 15°, and it does not show any water storage within the site - suggesting no final voids would be retained on the Invincible mine site. The Department is now advising that there are 3 voids on the Invincible site, and additional mining must be approved to provide enough spoil to ensure these voids are filled.

Careful mine planning and design sequencing is important to ensure that no final voids are retained in the final landform, and the Commission acknowledges that this is not always achieved.

³³ Department of Planning and Environment's Assessment Report, 5 August 2014, p 58

³⁴ http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/applications-and-approvals/environmental-assessment/mining#_rehabilitation-security

³⁵ Department of Planning's Director General's Environmental Assessment Report, Invincible Coal Project, December 2008, p 2

³⁶ Department of Planning's Director General's Environmental Assessment Report, Invincible Coal Project, December 2008, p 14

Nonetheless, in this instance the Commission understands that under the current approval for Invincible no void is allowed to be retained on the site, consequently no modification should be necessary to provide for rehabilitation of the site.

It appears that the mine operator may not have done adequate preparation and planning to ensure the site can be rehabilitated in the manner in which it had proposed to do so and within its conditions of approval.

The Commission has carefully considered the current predicament. If the argument that this additional mining is needed to provide for rehabilitation of the site is accepted, then it has the potential to set a precedent for other mining companies who may also decide to try and overcome concerns about a further expansion by falling behind on rehabilitation and leaving an unrehabilitated site and unplanned voids. There is also real concern (particularly within the community), that given the current approval was only granted less than 6 years ago, that the same situation will happen again. That is, the mine operator may come back to the Government in the future with the rehabilitation still not completed and a need for more mining to provide for a 'better' final landform.

The Commission is concerned that the site has not been rehabilitated, but ultimately it is the responsibility of DRE to ensure that land disturbed by mining activities is returned to a sustainable post-mining land use. The DRE's submission is supportive of the modifications but does not provide any explanation or support for the argument that this additional mining is critical to the rehabilitation of the site, stating *"In regard to mine voids and rehabilitation works, the final land use and landform has been previously addressed in the original approvals and the proposed Modification is in keeping with the spirit of those approvals"*³⁷. In this instance the Commission is not convinced that additional mining to fulfil the Proponent's pre-existing rehabilitation commitments and requirements is appropriate justification for the extensions. Further, accepting the argument put forward by the Department could set a dangerous precedent.

8 Commission's Determination

The Commission has carefully considered the information available including the Department's Environmental Assessment Report and associated documents, submissions made to the Department, comments made during the public meeting, the previous PAC Review Report of the Coalpac Consolidation Project dated 14 December 2012 and the Department's assessment of that application. The Commission has also considered the correspondence received from Energy Australia and the Blast Management Response provided by the Proponent, prepared by Terrock Consulting Engineers, dated 9 April 2013).

The Commission finds that the area containing pagoda landforms has high conservation value, both in terms of the unique landforms present and the key habitat features for threatened species. The pagodas and associated escarpments have been found to be natural features of special significance by previous review and assessing authorities and worthy of the highest level of protection. The Commission agrees with these findings.

The proposed extensions would comprise open cut mining adjacent to and intruding into the pagoda landform complex as well as highwall mining beneath parts of the pagoda landforms. Mining in the vicinity of these landforms has been found to be unacceptable in the past and the Commission has

³⁷ NSW Trade and Investment: Resources and Energy, undated Submission to the Department of Planning and Infrastructure on the Coalpac Modifications.

been unable to find any compelling new evidence to support a different outcome in this instance. The Commission finds this proposed mining would pose unacceptable risks and impacts, and only limited short term benefits. The Commission has determined to refuse the modification applications for the following reasons:

1. The proposal poses unacceptable risks to the pagoda structures and escarpments in the vicinity of the open cut pits and above the proposed highwall mining areas.
2. The proposal would have significant impacts on the pagoda landform complex.
3. The site has significant conservation value and is not suitable for the proposed mining, the highest and best use of the area is for conservation.
4. The justification and need for the proposed extensions do not outweigh the environmental costs and impacts of the extension.



Garry West
Member of the Commission



Donna Campbell
Member of the Commission



Gordon Kirkby
Member of the Commission

Appendix 1

List of Speakers

PLANNING ASSESSMENT COMMISSION MEETING

Date: Wednesday 17 September 2014, 1:30 pm

Place: Progress Association Hall, Cullen Bullen

- Speakers:**
1. Lithgow City Council - Andrew Muir, Group Manager for Environment & Development
 2. Paul Gibbons
 3. Jenee Taylor & Mark Taylor
 4. Colong Foundation for Wilderness - Keith Muir
 5. Cullen Bullen Lifestyle Group - Maren Botfield
 6. Nature Conservation Council - Peter Green
 7. Reg Larkin
 8. Bathurst Community Climate Action Network - Tracey Carpenter
 9. Wendy Day
 10. Glynn Baynham
 11. Australia Institute - Rod Campbell
 12. Eva Rizana
 13. Michael Keats
 14. Jan O'Leary
 15. Blue Mountains Conservation Society - Madi Maclean
 16. Anthony Leo
 17. Lithgow Environment Group - Chris Jonkers
 18. Stefan Filla
 19. The Colo Committee and Conservation Group - Dr Hayden Washington
 20. Keith Howell
 21. Dr Richard Stiles
 22. Sally Taylor
 23. Thomas Ebersoll
 24. Energy Australia - Luke Welfare
 25. Brett Malafant
 26. Mark Cullen
 27. Constance Ellwood
 28. Mick Bulkeley
 29. John Fuller
 30. Caroline DiMauro
 31. Ron Leggatt
 32. John Tilley
 33. Tidy Towns - Secretary
 34. Robyn Gilmore

Note: Seven more people were registered to speak but did not attend.