

Full version.

**INVINCIBLE SOUTHERN EXTENSION MODIFICATION
(07_127 MOD 5)**

**PLANNING ASSESSMENT COMMISSION MEETING
29 NOVEMBER 2017**

**MADI MACLEAN
BLUE MOUNTAINS CONSERVATION SOCIETY**

The Blue Mountains Conservation Society is a community organisation working to achieve the preservation and regeneration of the natural environment of the Greater Blue Mountains area. The Society has a membership of over 800 people.

Conservation organisations are seeking protection of the Gardens of Stone Stage 2 area including the area of the Invincible Southern Extension (ISE) as state conservation areas (SCA) under the *National Parks and Wildlife Act*. This would still allow underground mining

✓

High Conservation values – previous PACs

- The Invincible Southern Extension (ISE) is part of the two Coalpac expansion areas rejected by independent Planning Assessment Commissions.
- Two independent Planning Assessment Commissions concluded the Coalpac project areas (including the Southern Extension area) should have “the highest level of protection” from mining. The two PACs rejected open cut mining as totally inappropriate.
- The 2014 PAC, in rejecting the Coalpac Invincible modification project, concluded that “The Commission accepts the finding of the 2012 PAC Review, the OEH and the Department of Planning and Infrastructure’s (DPE) 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.**” 2014 PAC Determination Report 17 October 2014 (2014 PAC Report), p.10
- The 2014 PAC also agreed the “... the highest and best use for the (Coalpac Consolidation project) land is conservation purposes”
- The PAC should now observe the previous PACs decisions which were reached after extensive investigation and assessment, and reject the Invincible Southern Extension entirely. To do otherwise would create a precedent which would bring back further open cut mining proposals at Invincible and other nearby mines in the area.



DPW Proposal

- DPE has recommended approval of the ISE project over a smaller area (35 ha rather than 50 ha) with certain conditions.
- They recommend removing a strip on the eastern side of the project area with steeper slopes and some parts within the buffer zones needed for pagoda protection.
- However, in doing this DPE has misunderstood the previous PACs' conclusions about what constitutes the pagoda land complex.

✓

PACs' definition: Pagoda land system 1

- The Department of Planning and Environment (DPE) noted regarding the Coalpac Consolidation project that “...the project site is properly characterised as a ‘pagoda landform complex’. This landform comprises a complex arrangement of habitats characterised by a convoluted line of towering rock faces that give way to rocky steep slopes and these in turn **give way to forested slopes and valley floors** dominated by various eucalypt vegetation communities. **All components contribute to the overall significance of the pagoda landform complex, and any impacts to components of the landform complex have the potential to compromise the significance of the landform complex as a whole**”. [DPE Coalpac Consolidation Project (10_01 76) Addendum Report - 7 August 2013. P.6]

✓

Pagoda land system – PACS - 2

- The PACs clearly saw the whole land system as requiring protection.
- Deciding to only protect the pagodas (Manildra) or the pagodas and steep slopes (DPE) is not consistent with the PACs' decisions.
- The interdependence of the land form contributes to the high biodiversity of the area.
- For instance, animals which live among the rocks and crevices of cliffs depend on the slopes and valleys for their food. They can't live if they are deprived of their food.
- The PAC should recommend that the whole pagoda land system as defined by previous PACS should be protected from mining and refuse the Invincible Southern extension.



Biodiversity of ISE, Ben Bullen State Forest and Offsets

- DPE's recommendation to approve the ISE will endanger eight threatened species including allowing mining of the habitat for the Squirrel glider (most of the 50 ha), the broad-headed snake (11 ha) and most probably the Purple Copper Butterfly plus remove threatened species, Capertee Stringybark trees.
- The offsets proposed are totally unsatisfactory as any replacement for what will be permanently lost.
- Because of the inadequacy of the proposed biobanking land, the “shortfall” in the offset system allows amongst other things, for \$194K to be spent on conservation for the broadheaded snake. But what will research do for the snake after its food hunting areas become a deep hole in the ground? Open cut mining below the pagodas will permanently reduce the amount of habitat it needs. It is a just a cynical calculation and payment of money.

Purple Copper Butterfly

- Office of Environment and Heritage (OEH) concerned that not all bursaria patches the butterflies need, have been identified and no targeted surveys carried out in the peak flying season (late October – November) for the project’s Environmental Assessment. OEH considered these surveys so important for protecting the butterfly that needed to be one before consent was granted [DPE Assessment Report (AR), Appendix D, p.9]
- Manildra Group’s consultants missed the dates. Will these surveys be done in November 2017? The proposed consent conditions say that surveys must now be done before mining starts but after consent. DPE says that it is satisfied that any damage will be “compensated for”. Again the offsets system provides a totally inadequate response to damage to the threatened species in the area.

Ben Bullen State Forest – Conservation values

BBSF has large floral diversity as well as internationally significant geo diversity in its pagoda rock formations.

Compared with all 578 NSW state forests Ben Bullen State Forest has

- the third most native plant species (645); and
- third highest number of threatened plant species and ROTAP listed species (12).
- BBSF has more native plant species (645) than any other state forest in NSW of a similar size (7000 ha).

BBSF also contains many more native plant species (645) than many existing local national parks including Muggii Murrumban SCA (530), Capertee NP (172); Marrangaroo MP (267) and Gardens of Stone NP (576).

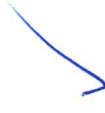
- Source: NSW Wildlife Atlas www.bionet.nsw.gov.au

Conservation significance of the Ben Bullen State Forest underplayed

- DPE says it is taking it into account the significance of Ben Bullen State Forest [DPEAR p.24] While DPE is recommending removing about a third of the ISE area this still does not adequately protect the Pagoda land system.
- The Strategic Context section of the report does not refer to the recognised values of the Ben Bullen State Forest at all.
- In contrast, the same section in the 2014 DPE assessment report on the modifications in the former Coalpac area referred to Ben Bullen State Forest (BBSF) being part of the Gardens of Stone Stage 2 conservation proposals; the long campaign for its protection; the recommendation of the GBMWA Advisory committee that the area be protected as a priority and OEH's advice that BBSF has significant conservation value and is suitable for reservation under NPW Act. [DPE Assessment report Coalpac Mods, August 2014 p.3] None of this is covered in the ISW Assessment report!

Weak case for the project


- Justification for the proposal is weak. The Manildra group say they need this special “nut” coal to feed the boilers at their Shoalhaven Starches operations near Nowra. But they are currently already getting nut coal from two other mines and there is no evidence of unreliability of supply.
- DPE accepts Manildra Group’s argument without comment in its assessment report. [P.2] Nor do they question that transitioning away from nut coal would make its operations more expensive and therefore uncompetitive [DPEAR p,32]
- One of Manildra’s current coal suppliers is Clarence Colliery, a nearby underground mine. They do not need to reopen the Invincible mine and destroy forest to keep their boilers going in the Shoalhaven.
- The proposal wants to mine 2.7 million tonnes of coal to get just 300,000 tonnes of nut coal for their boilers! A mere 11% of the total coal being sought.
- It is an extremely wasteful and destructive process to acquire this small amount of nut coal. It destroys 50 hectares of woodlands to produce just 300,000 tones of nut coal fuel! A yield of 6,000 tonnes per hectare.
- Yet we are told this is the “primary objective” of the proposal! In fact, this is just for the financial benefit of the mine owners.
- That is insufficient justification for destroying 50 hectares of woodland, leaving a wasteland below pagodas landscape and right beside a main highway plus creating a precedent allowing for more open-cut mining in the area.



Economic case - 2

- The majority of the coal extracted (almost 90%) would be sold to Mount Piper Power station (MPPS) which currently has only one supplier, Centennial's Springvale mine.
- Unlike all the concern expressed about the reliability of supply to MPPS in the recent court case regarding Springvale mine, the assessment report doesn't treat this aspect in much detail. Yet this is the majority of the coal being extracted.
- EA's letter of support is low key. Possibly because 2.4Mtonne of coal over eight years is not a big contribution to MPPS' needs. However, Invincible could contribute much more through further future proposals
- Value to state in terms of royalty for use of the resource (coal) will be \$12M over eight years. This is a very small sum in context of NSW State Budget.

Project's capacity – future expansion

- **Capacity in the consent is much bigger than this proposal**
 - Invincible's consent allows 1.2Mtpa or 21.6Mt coal to be extracted over eight years. The current proposal is only 2.7MT over eight years (12% of consent capacity).
 - Shoalhaven Coal, another related organisation of the Manildra Group, was granted two new exploration licences around the mine in 2016 (Exploration Licences 8168 and 8169) covering 1368 hectares.
 - So capacity exists for a much larger mining activity over the Invincible mine area within this consent (as further modifications)
 - If approved, it will also open the way for more open cut mining in Gardens of Stone area at other nearby mines currently not operating (such as Manildra Group's Cullen Valley open cut mine). It will be a chink in the previous PACs' decisions.
- 

DPE Proposal

- DPE says that its reduced area proposal strikes “an appropriate balance between ensuring ongoing operation of the mine, recovery of coal for use in Shoalhaven statches and the protection of landscape and conservation values associated with the surrounding pagoda landscape and the BBSF” [DPEAR p.17]. That is two economic statements “balancing” one environmental one!
- However, there is no compelling case for the recovery of the nut coal through this proposal (as it is already being supplied) and the proposal does not protect the pagoda land system and landscape according to the assessment of the previous two PACs as discussed.
- DPE’s recommendation of approval for the IEP will allow mining of the habitat for endangered species - squirrel gliders and broad-headed snakes plus Capertee stringybark trees, a vulnerable threatened species. Eight threatened animal species in all.
- Provide people travelling to the area and beyond the same uninviting view of degraded open cut mine or pit.



Assessment conclusion

- The ISE is smaller than the two Coalpac proposals, however, what is not being said is that ISE has relatively big impacts for the amount of coal being produced. Particularly compared with the small amount of nut coal, the primary purpose of the project.
- It introduces open-cut, a very damaging mining method. More damaging than what the existing supplier, Clarence colliery, uses.
- Even the reduced size proposal would damage the pagoda land system
- High risk with unknown of water balance and highly saline mine water discharges. There is no assessment independent of these issues.
- Highly inefficient and destructive activity compared to the small output.



Water management – underground interconnection

- Big issue for this proposal is interconnectiveness with old underground workings and management of potential toxic and highly saline discharges. Response to Submission (RTS) App B states that Ivanhoe. Invincible, old Tydesley mine and Baal Bone underground mine workings are hydraulically linked. FIGURE 9 IN DPEAR shows the whole surrounding area covered with old underground workings.
- Given this interconnection, mine water will leak out at lowest point. Because coal coal seams here slope towards the north east, this will be either to Baal Bone into Jews Creek and the Turon River system or into Long Swamp and the Coxs River (therefore Sydney drinking water catchment).
- Proponent state salinity in Ivanhoe old workings is around 1700 EC. This is consistent with Sydney catchment Authority testing in 2006 which recorded 1700 EC when Ivanhoe discharged via LDP001 into Long Swamp. 1700 EC would not have a “neutral or beneficial impact on Sydney’s drinking water catchment. This former discharge point should not be reopened.
- Manildra have not identified that Ivanhoe workings is very likely to also be connected with the old Wallerawang Colliery and the old Eastern and Western Main colliery Workings (now Centennial Western Coal services and the Mt Piper Power station ash repository). Salinity in both these areas is very high. Western coal services LDP006 has been over 5000EC. Mt Piper Ash Repository is also highly saline. *
- Raising the water level in Invincible underground workings can lead to unintended leakages to other areas as the water is not controlled in any way. Salinity and acid mine drainage can arise.

* Mt Piper Power Station generates 15 ML/year of brine with a salinity of 115,000 $\mu\text{S}/\text{cm}$ (three times saltier than seawater off Sydney beaches). Source: Mount Piper Extension 2010 – Application Number MP 00 0110



Water management –interconnectedness 2

- Concerns raised by the EPA haven't been fully addressed.
- EPA has said that “water balance modelling lacked sufficient rigour to provide confidence that it accurately predicted what will occur when mining starts” [EPA letter of 27.10.17]
- DPE acknowledges EPA has “some residual uncertainties about how much water could be dewatered” [DPEAR P.9]
- The DPE itself admits there are uncertainties: . “some inherent uncertainty .. With volumes of water in historical underground workings”. [DPEAR p.23]
- A lot of uncertainty mean the proposal cannot just be waived through.



Water management interconnectedness - 3

- DPE required more investigative work done twice but it is not by an expert independent of the proponent.
- Given the significance of this issue, the PAC should require independent assessment for itself.
- Proposed conditions suggest that the level of baseline information is lacking: added “a program to augment the baseline data over the life of the program” and a detailed description of the relevant discharge limits as required under condition 24 sched 3.” [c.27 (c), (ii)] and water management plan to be prepared before mining operations recommenced “ 27. shows more caution than for some other project.
- Even after these measures, DPE in the assessment report is cautious... “based on all available data” no comment on whether this is adequate or sufficient data. The assessment is a “reasonable estimate”



Water management – impact of discharges

- EPA very concerned that high salinity issues need to be flagged up front and early as they usually require capital investment. EPA stressed the importance of identifying the environment impact and potential treatment options prior to approval of a project.
- EPA says that this is critical to understanding whether the potential environmental impact can be managed and mitigated by the proponent or regulated by the EPA [EPA letter 13.9.17 App to DPEAR]
- Some assessment reports such as Coalpac modifications, state that a regulator is satisfied the impact can be managed. That is missing in the assessment of the Invincible southern Extension.
- The DPEAR recommends consent conditions using an ANZECC target rather than understanding and developing specific discharge limits relating to what is likely to occur. [proposed consent condition 24, schedule 3].
- However, the EPA has commented that they believe that any discharge from Invincible's LDP002 would exceed that ANZECC target. If it was exceeded the POEO Act would be activated. [letter of 27.10.17]



Water management – impact of mine discharges 2

- But it would be better to understand the issues and have a way to manage it. One reason for this is that very high salinity discharges really require treatment and, depending on the severity of the salinity, capital investment.
- These issues need to be acknowledged and actions recommended with the authority of the modification approval under the Environmental planning and Assessment Act.
- Our experience with reviewing mine proposals has shown that improvements to discharges are more likely to succeed where the consent conditions give explicitly direction on how to improve the associated EPLs. The approval is the time of greatest leverage. Most recent case is Springvale MEP and subsequent amendments around the Water Transfer Scheme, now being built.
- PAC needs to play that role again in ensuring independent assessment and a way ahead to resolve serious issues such as extremely saline mine water discharges into the receiving environment.

1