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Nature Conservation Saves for Tomorrow

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ANGUS PLACE MINE EXTENSION PROJECT (SDD 12– 5602) ENVIRONMENTAL IMPACT STATEMENT (2014) AND AMENDMENT REPORT (2019)

The Blue Mountains Conservation Society is a community-based volunteer organisation with over 800 members. Our mission is to help conserve the natural environment of the Greater Blue Mountains and to increase awareness of the natural environment in general. BMCS is part of the Gardens of Stone Alliance in the long-term campaign to protect the Gardens of Stone area (Stage 2 proposal) as a state conservation area managed under the *National Parks and Wildlife Act*. The Angus Place Mine extension project (APMEP) is within that proposed state conservation area.

Background

The Blue Mountains Conservation Society (BMCS) opposed the Angus Place Mine Extension Project (APMEP) as described in the EIS exhibited in 2014 (2014 EIS) ¹ on the grounds that it posed a significant risk to the environment through waterway pollution, damage to waterways, nationally listed swamps, streambeds and cliffs and the plants and animals including threatened species and communities due to subsidence and the continuation of coal-fired electricity generation. This submission addresses the Amendment Report to the APMEP dated December 2019.

Summary of BMCS' Position

BMCS opposes the APMEP as set out in the APMEP Amendment Report [AR]. It proposes intensifying the mining process and significantly extending the mining period compared with 2014 EIS. This will increase the damage to the environment, in

¹ BMCS Submission submitted to NSW Department of Planning in 2014.

particular, to the significant biodiversity and geological values of the APMEP in Newnes State Forest. APMEP is an ambit claim to maintain mining for another 33 years in the project area despite the growing climate emergency, state and federal government's policy and Australia's obligations under the Paris Agreement on Climate Change. This must be rejected by the decision-maker.

Reasons for opposing APMEP

Intensification of the mining

The elements of the proposed intensification of mining are:

- Enlarging longwalls so that 2/3 of them are 360Metres wide thus increasing predicted subsidence impacts;
- Extending the time mining would be allowed in the project area from 25 years from approval (in 2014 EIS) to the year 2053, that is 33 years;
- Increasing the maximum amount of coal which can be extracted from 4 million tonnes per annum (Mtpa) to 4.5Mtpa.

Enlarging longwalls

The revised mine plan for APMEP will cause more subsidence to the land above. The predicted maximum vertical subsidence will increase from 1.9 metres in the 2014 EIS to 2250 mm. A 2.25 metres maximum width will apply to ten of the fifteen Longwalls.² The AR acknowledges that this will increase subsidence.³ While the modified mine plan made some adjustments to create a minimum setback of one kilometre from Gardens of Stone National Park and to avoid directly undermining Trail 6 (listed Newnes Shrub Swamp), void widths have been increased "to remain economically viable". The net effect is more damage is likely. The NSW Office of Environment and Heritage (OEH) warned against any longwalls being 360 meters wide where they were proposed in the 2014 EIS:

"Due to the extremely wide longwalls (360m) proposed at Angus Place, OEH also expects there will be widespread fracturing of cliffs, steep slopes and drainage lines (potentially similar to cliff and drainage line impacts at Baal Bone Colliery and earlier Angus Place operations)."⁴

AR predicts that Tri-Star, Trail Six, Birds Rock, Crocodile swamps (all nationally listed) will probably dry out and suffer significant damage from subsidence with no recovery expected.⁵

Significant subsidence – damage to swamps, plants and animals

In 2014 EIS the maximum subsidence predicted over the panel areas was 1.9 metres and a range of one to 1.9 metres over the panel area, BMCS objected to this level of predicted damage, the poor record of the company, Centennial Coal, carrying out damaging mining in the area (including recent cracking of and disappearance of Wolgan East swamp above an extraction panel at Springvale mine). The society

² AR p. 40 table 6-3

³ AR p.41 and p.8.

⁴ OEH letter to re EIS 2014, p.14 and Attachment B, P. 3]

⁵ AR, Table 8.2 and Table 8.6

pointed out that undermining of swamps is a ‘key threatening process’ and its results were already evident above Springvale mine. The AR now proposes even higher potential damage.⁶

The 2,000 ha of the proposed longwall mining in APMEP will be damaged by surface cracking, fracturing sub-catchments to a depth of 15 to 20 metres or more. The area will be irreparably damaged and its values degraded. The true outcome will only become apparent after mining when it is too late to repair the damage. The record of Springvale mine in destroying swamps shows that the only way to protect the area, if further mining in APMEP is approved, is through a mine plan that avoids the identified and likely destruction of the swamps.

One of the more important components of the Newnes Plateau environment is the system of shrub swamps (NPSS) (listed under *Biodiversity Conservation Act* (NSW). Newnes Plateau Hanging Swamps also occur in the project area and these along with the NPSS communities have been given Commonwealth Government protection under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as the Temperate Highland Peat Swamps on Sandstone Endangered Ecological Community (THPSS)”. These swamps are endangered ecological communities which store water and gradually release it maintaining stream flow even in drier periods. APMEP will put swamps at serious risk of drying out leading to the destruction of the ecosystem in each affected valley.

This would also destroy the habitat of many plant and animals. In particular, “A number of threatened groundwater dependent biota (plants *Boronia deanei* subsp. *deanei* and *Dillwynia stipulifera*, the Giant Dragonfly *Petalura gigantea*, and the Blue Mountains Water Skink *Eulamprus leuraensis*), are also found in these swamps and are obligate swamp dwellers (Benson and Baird 2012). Newnes Plateau Shrub Swamps are likely to be the key habitat of the nationally endangered Blue Mountains Water Skink and the State endangered Giant Dragonfly (Henson 2010).” ⁷

The conclusion that this is the best that can be done because of profitability is unacceptable.⁸ This conclusion should be interrogated by Department of Planning in its assessment report to the determining body and by the decision-maker, not merely accepted.

Far field impacts – the experience of Springvale mine

The EIS for Springvale rejected the notion that far field impacts would occur in Newnes Plateau. However, this was proved to be incorrect following the work of the Springvale Independent Monitoring Panel (IMP) established by the Planning Assessment Commission (PAC) as a condition of consent after submissions from environmental groups. Springvale mine has damaged swamps (as AR acknowledges at p,49, for instance) and has had to shorten longwalls to avoid further damage.

Carne West swamp was the first swamp which the IMP identified as being impacted by far field impacts from Springvale longwalls. This swamp was undermined by far field impacts from Centennial Coal’s Springvale Mine. The Springvale IMP concluded

⁶ AR, section 3.2

⁷ Att B, pp3-4

⁸ AR, section 7.5, p.49

in June 2016 that the damage to Carne West Swamp (“very significant drop in the water levels of CW swamp and cessation of flow of the watercourse through this swamp with consequential drying out of the swamp and loss of the waterfall at the downstream end of the swamp”) was likely to be from far field impacts and that the loss of water began to be detected when Springvale’s mining was up to 700 metres away.⁹ The OEH submission on the Springvale Mine Extension in 2014 stated that that Carne West and six other larger swamps *would* be considered to be amongst the most important swamps on the Newnes Plateau because of their size and that Carne West Swamp would potentially have a community valuation of \$27M (\$2M/Ha X 13.8 Ha),¹⁰



Carne West Swamp in 2007 – Photo Lithgow Environment Group

⁹ *IMP report Springvale Mine extension Project – extraction Plan for Longwall 19* (June 2016), p.2

¹⁰ “Although community valuations for Newnes Swamps have not been calculated, in the southern coalfields, Choice modelling for the Bulli Seam Operations valued coastal upland swamps (EEC under the TSC Act) at \$2M per ha (BHPBIC 2009). Given their comparative rarity, Newnes Plateau Shrub Swamps and NPSS would likely receive a similar or potentially higher community valuation”. [Att B p. 5]



Carne West Swamp 2020 – four months after the 2019-10 fires
Photo Lithgow environment Group

In APMEP far field horizontal movements are likely to occur at one kilometre¹¹ The AR, in a section headed *A new Understanding of Swamp Impacts at Springvale Mine*, concludes that “based on extensive monitoring data and analysis”, ...mining directly beneath lineaments ..has triggered changes to hydrology in swamps overlying Springvale mine.”¹² This has caused changes to standing water levels which have not yet recovered up to 1600 metres away. And yet, amazingly, the report concludes that, after looking at options to avoid this occurring, that they couldn’t take avoidance action as it would reduce the mine to such an extent to make it an unviable proposition.¹³

This must be challenged by the assessment process of this proposal. Throwing your hands up and saying okay we were wrong but the mine plan doesn’t work for us so we’d like the plan approved anyway, is not acceptable when avoidance has been applied in Springvale Mine. Offsets for damage which, at least under the NSW legislation, allow payments for damage where physical offsets are not possible are an easy way out for mining companies. This outcome does not address the problem of extensive permanent damage to the land and its biodiversity. Offsets are meant to be compensation for damage. If the mine is approved, it needs to contain a mine plan

¹¹ AR p.41 (6.5.3).

¹² AR, section 7.2

¹³ AR, p.AR, p.9

that avoids damage from subsidence including from far-field impacts. Centennial must be required to seriously and constructively address the steps of risk management, specifically avoidance, as the first step. The mine plan should be changed to avoid this damage, for instance by contracting the size of longwalls and their location or using less damaging mining processes.

In an important omission, the AR does not assess the possibility of far-field impacts from mining on the Wolgan River and its swamps. Parts of the Wolgan Lineament Field are located to the west near the APMEP Study area, AR states that “the predicted far-field horizontal movement at a distance of one kilometre outside the mining area is 80mm based on 95% confidence level”¹⁴ It is likely that this field will be reactivated by longwall mining and cause loss of water to Wolgan River. This has happened to other streams on Newnes Plateau. The lessons from earlier mining should be applied.

Inadequacies in Biodiversity Impacts

The revised mine plan will damage swamps and their dependent plant and animals. However, the impacts on biodiversity have not been well documented and surveys have been inadequate. The monitoring work of the Lithgow Environment Group has shown the serious inadequacy of flora surveys for a number of Centennial mining proposals. In relation to APMEP,

- 40 threatened species were missed in the 2014 EIS for APMEP;
- The AR overlooks nine threatened flora species under state and / or Federal legislation which occur in the proposal area and several other rare flora species;
- There are over 100 native species in Newnes State Forest which are not listed in Bionet including *Kunzea camabgei*, *Pultanaea glabra*, *Carex klaphakei* and *Xerochrysum palustre*. Many, if not all, of which could occur in APMEP.

A number of threatened groundwater dependent biota (plants *Boronia deanei* subsp. *deanei* and *Dillwynia stipulifera*, the Giant Dragonfly *Petalura gigantea*, and the Blue Mountains Water Skink *Eulamprus leuraensis*), are also found in these swamps and are obligate swamp dwellers (Benson and Baird 2012). Newnes Plateau Shrub Swamps are likely to be the key habitat of the nationally endangered Blue Mountains Water Skink and the State endangered Giant Dragonfly (Henson 2010).”¹⁵

2019 20 Bush fire impacts have been severe and unprecedented in Australia, the Greater Blue Mountains area and in the Newnes State Forest. This means that the flora and fauna have been significantly impacted since the AR was completed in late 2019. While the area should recover over some time, this is likely to affect the threatened species standing of plants and animals in the APMEP area. Species' ranges and populations may have been severely impacted by these fires and their status now needs to be assessed. Species which were not previously listed under threatened species legislation may now satisfy listing criteria and need to either be nominated for listing or have relevant Threatened Species Scientific Committees make an emergency listing. Additionally, many already listed species are likely to have experienced dramatic reductions in geographic range, populations, or habitat

¹⁴ AR, p.41

¹⁵ Att B, pp3-4

availability. These species are thus likely to have become more threatened and justify upgrading their listing, e.g. from Endangered to Critically Endangered or Vulnerable to Endangered. For instance, the fires have seriously impacted koala populations in NSW leading to a need to upgrade their classification. These impacts will also mean that the offsets calculations for APMEP are inadequate.

Recommendations

- **Centennial should conduct further flora studies to address deficiencies and.**
- **The assessment should take into account the bushfire impacts on threatened species listings.**

Cliff collapse and pagoda damage

The high significance of the pagodas and cliffs of the Gardens of Stone area have been identified, researched,¹⁶ and recognised at the State government level by OEH and previous PAC Reviews and determinations and by the Greater Blue Mountains World Heritage Advisory Council. Referring to the pagoda structures in the nearby Ben Bullen State Forest, which is part of the same recognised Gardens of Stone area, the PAC stated that they were “a unique landform on a world scale...” Further, “..They are part of a landform consisting of multiple pagoda structures and intervening sections of cliffs, with steep slopes and dissecting gullies below”.¹⁷ The decision - maker for APMEP should assess the proposal consistently with this earlier decision and apply the same status to the landscape in APMEP. The pagoda landscape system, recognised in the Coalpac Planning Assessment Commission report relates not just to the rock formations but also to the interdependent plants and animals which live in this landscape. This should be recognised and fully protected. This same status as rock formations and cliffs of special significance and level of protection should be accorded to the pagoda rock formations and high cliffs occurring in APMEP.

Protect Birds Rock Flora Reserve

Flora reserves are created under the *Forestry Act* to protect valuable flora in state forests.

“Flora reserves are NSW State forest lands permanently reserved to conserve native plants, forest ecosystems and threatened species and habitats. ...

Flora reserves are State forest areas managed by NSW National Parks or the Forestry Corporation under the [NSW Forestry Act 2012](#). Commercial timber harvesting and logging are not permitted in these protected areas.”¹⁸

Birds Rock Flora Reserve (BRFR) is protected specifically for “...a good quality stand of relatively undisturbed Blue Mountains Ash, which is nearing the edge of its distribution west on the Newnes Plateau; and ... the 'Birds Rock' rock formation and lookout.”¹⁹ “... There are quite large areas of bare rock associated with the cliffs, and interesting and elegant wind eroded formations are relatively common (eg. "beehives"

¹⁶ H Washington and R Wray (2011), The Geoheritage and Geomorphology of the Sandstone Pagodas of the North-Western Blue Mountains Region(NSW) *Proceedings of the Linnean Society of NSW* 132, 131-143 at p.131

¹⁷ Planning Assessment Committee (PAC)'s *Review Report on the Coalpac Consolidation Project* and quoted in *PAC Determination Report for Coalpac Modifications 2014* at page 9

¹⁸ OEH website

¹⁹ *Working Plan for Birds Rock Flora Reserve*, 2016 p.2.

and "pagodas").²⁰ "One of the features leading to the selection of this area for preservation was the presence of a good and undisturbed example of Blue Mountains Ash."²¹

APMEP is likely to fracture Birds Rock in the protected flora reserve. The reserve is predicted to suffer subsidence up to the maximum of 2.25 metres as it is treated no differently from the surrounding state forest. Possible changes are to surface water drainage, surface cracking, fracturing and spalling of rock formations. as elsewhere in the state forest.²²



Hanging swamp in Birds Rock Flora Reserve at risk of drying out when it is undermined
Photo Lithgow Environment Group

The AR stated that BRFR would be undermined by the eastern end of longwalls 1006 to 1009. There are several hanging swamps in the flora reserve which will be undermined. These and the pagoda rock formations should be protected from the known mining impacts identified in the AR and consistent with the intent of the flora reserve's legislated protective role.

The EIS and AR should treat Bird Rock Flora Reserve like other protected areas and according to the intent of its reservation. OEH says that should be given "equivalent protection to national park estate".²³ The nature of the specialised protection of a flora reserve is more like the nature reserve category under *National Parks and Wildlife Act*. In October 2018. The NSW government recognised the importance of flora reserves,

²⁰ *Working Plan for Birds Rock Flora Reserve*, 2016 p.2.

²¹ As above p.4

²² AR, Table 8-11, p.80

²³ OEH letter, p.15

for instance, dedicating 14,200 ha of state forests as flora reserves and transferring their management of the National Parks and Wildlife Service as part of its “commitment to biodiversity conservation”.²⁴ BRFR should be protected from undermining and far field impacts.

Recommendation

In summary, the amended APMEP proposal should be amended to prevent damage to nationally endangered swamps, Birds Rock, Wolgan River, Carne Creek, the pagodas and cliffs in this proposal.

Surface Infrastructure Envelope

The AR has doubled the size of the Surface Infrastructure Envelope for vents, shafts bores and other required structures from 23.25 ha in the 2014 EIS to 9.93 ha.²⁵ This doubles native vegetation clearing and related damage. The envelope is proposed so that the actual location and area required for each item can be worked out post consent being granted. This is not supported. Assessment of impacts needs to be location specific particularly in such a significant biodiversity area and assessed before consent is granted. This way it will be more controlled process for what is the use of public land. It will ensure that only necessary clearing takes place. This is particularly important following the recent bushfires where any unnecessary clearing should be avoided so that the vegetation can recover and support fauna.

Recommendation

The impacts of any necessary infrastructure needs should be described explicitly and dealt with as part of conditions of consent so they can be adequately regulated.

(ii) Extending the length of time for mining on APMEP

The amended proposal seeks to extend Centennial’s right to mine at Angus Place even further than the 25 years sought in 2014. This proposal now attempts to allow mining to continue presumably over the whole APMEP project area of 10,551 hectares right up to 2053 (a further nine years). The AR states that mining LW1015 will finish in 2038 so this would only leave LW910 to be mined.²⁶ Thus, it appears a new mining plan for somewhere within the project area could be sought for the remaining years once APMEP was completed.

The AR says that 2053 “... aligns mining operations at Angus Place to the current projected life of Mt Piper Power Station (MPPS).”²⁷ Yet as recently as July 2019 the Managing Director of Energy Australia in announcing an upgrade to MPPS’ turbines said that MPPS should be around for another quarter of a century²⁸. Whatever the current economic life of MPPS is estimated or hoped to be, the imperative to move away from coal-fired power will overtake this desire to keep extending old polluting technology. Indeed, the extreme weather conditions already being experienced in

²⁴ <https://www.environment.nsw.gov.au/news/nsw-grows-its-national-park-estate>

²⁵ AR p. 7

²⁶ AR, p.55

²⁷ AR, p.8

²⁸ Lithgow Mercury July 2019

Australia in recent years, such as prolonged and extreme high temperatures coupled with greatly reduced rainfall and high winds, exemplify the predictions of climate scientists about the impacts of global warming and rapid climate change.

The overwhelming scientific advice is that coal fired electricity needs to be phased out and replaced by renewables. Approving this extended period is incompatible with the NSW government's target to reach net zero emissions by 2050. This policy position is held by all state and territory governments as well as the federal government. The NSW government should hold to its policy.

The local community of Lithgow is starting to recognise the need to diversify the economy so that it is better prepared for this shift and Lithgow Council recognises there will be a transition. *Destination Pagoda*, a plan showing how a Gardens of Stone state conservation area could contribute to this diversification has received positive local support. However, this extension is an attempt to lock in coal-fired electricity beyond 2050 target for net zero emissions. The length of time will also not allow for the changing circumstances of energy markets and electricity generation already that will inevitably occur.

As well, despite Angus Place hoping to continue Springvale's role as the sole supplier of coal to Mount Piper Power Station (MPPS), it cannot claim the exclusive status that was important to the PAC's approval of Springvale's extension in 2015. Springvale's coal supply has proved unreliable and it faltered last year. MPPS was forced to operate at reduced capacity. MPPS' owners, Energy Australia, said that "...Mt Piper has managed significant issues with coal quality and volumes from the Springvale mine for the past few years. ... To conserve coal, Mt Piper has generated around 40 per cent less electricity so far in 2019 compared to the same time last year."²⁹ Energy Australia is now actively working to develop its capacity and to source its coal from other mines so that it will now be so dependent on the one coal mine. This diminishes any special status for Angus Place.

Recommendation

The decision-maker for APMEP should not approve this new timeframe of mining until 2053.

Offsets underestimated and lacking detail

The offsets proposed are lacking in detail. No "like for like" offsets are proposed even though the *Environment Protection and Biodiversity Conservation Act* (EPBC Act) requires 90% offsets to be "like for like". The usual process is for proponents acquire the appropriately identified offset land and agree a timing for this to occur. This issue needs to be addressed before consent.

The point of offsets is to compensate for damage. The proponent should make every effort to avoid damaging as it cannot be offset. Paying money for instance, into a research fund is too easy for mining companies and not a effective means of protecting and preserving reduction in biodiversity or even extinction of a species.

²⁹ Lithgow Mercury

Centennial includes in its proposed offsets its support for the creation of a Gardens of Stone state conservation area at a future date. While this public support is positive, the proposed APMEP would damage and degrade part of Newnes State Forest within the proposed state conservation area. This is inconsistent. APMEP would destroy the values of the area so the subject area itself cannot then also be part of an offset.

Independent assessment of APMEP

Given the escalation of mining intensity proposed and the considerable damage APMEP as amended will cause to part of Newnes State Forest, an area with rich biodiversity values and scenic beauty comparable to those of the nearby Greater Blue Mountains World heritage Area, BMCS believes that the proposal should be assessed by the Independent Assessment Commission including public hearings.

Recommendation

that DPIE should require further assessments as outlined above and then the proposal should be assessed by the Independent Assessment Commission including public hearings

Yours sincerely

A handwritten signature in black ink, appearing to read 'Madi Maclean', followed by a period.

Madi Maclean
Senior Vice President
Blue Mountains Conservation Society

RECOMMENDATIONS

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The impacts of any necessary infrastructure needs should be described explicitly and dealt with as part of conditions of consent so they can be adequately regulated.

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