

## **Submission by the Colo Committee on State Significant Project – Angus Place Mine Extension (SSD 12\_5602)**

Monday May 26th, 2014

Mining and Industry Projects  
NSW Department of Planning & Infrastructure  
GPO Box 39  
Sydney NSW 2001

Dear Sir/Madam,

### **Introduction**

The Colo Committee is an environment group that has been active since 1974 in the Wollemi and Gardens of Stone regions. I wrote this submission as the Hon. Secretary of the Colo Committee. However I am also an environmental scientist who has been active in studying the biodiversity and geodiversity of the Newnes plateau and Gardens of Stone regions, being the lead author of the Washington and Wray (2011) paper on the geomorphology of the pagodas in the Proceedings of the Linnaean Society of NSW. I am a plant ecologist who is also interested in geodiversity and I wrote the original nomination (as a consultant for the Blue Mountains Conservation Society) for the now successful Threatened Highland Peat Swamps on Sandstone endangered ecological community under the EPBC Act. I am thus very familiar with the upland swamps of Newnes Plateau and the GOS area, and have been actively observing the impacts of mining on the swamps and pagodas of this region since 1980. The Colo Committee wrote the original nomination for Gardens of Stone NP, which included the region under proposal.

The Colo Committee strongly objects to the proposed extension of underground longwall mining at the Angus Place Colliery because it will cause significant environmental impacts to the Cocks River, nationally endangered swamps and associated streams on the Newnes Plateau in the Gardens of Stone Stage Two reserve proposal. Through the pollution and reduced reliability of flows of affected streams on the Plateau this mine extension proposal will also impact on the Greater Blue Mountains World Heritage Area. The proposed mine extension must be subjected to major review to reduce the intensity and extent of the proposed mining operation so that the likely significant environmental impacts can be moderated. The outstanding national and international heritage values of the Gardens of Stone region must not be impaired. The Colo Committee requests that this proposal and the adjoining Springvale mine extension (SSD12\_5594) be subject to a concurrent Planning Assessment Commission review process with public hearings.

Two sets of hearings on these mining proposals should also be held concurrently and permit questioning of parties to these hearings and responses by them. Such a process is necessary because significant policy for longwall mining rests with the determination findings and recommendations for these proposals. This proposal should not be granted a long-term

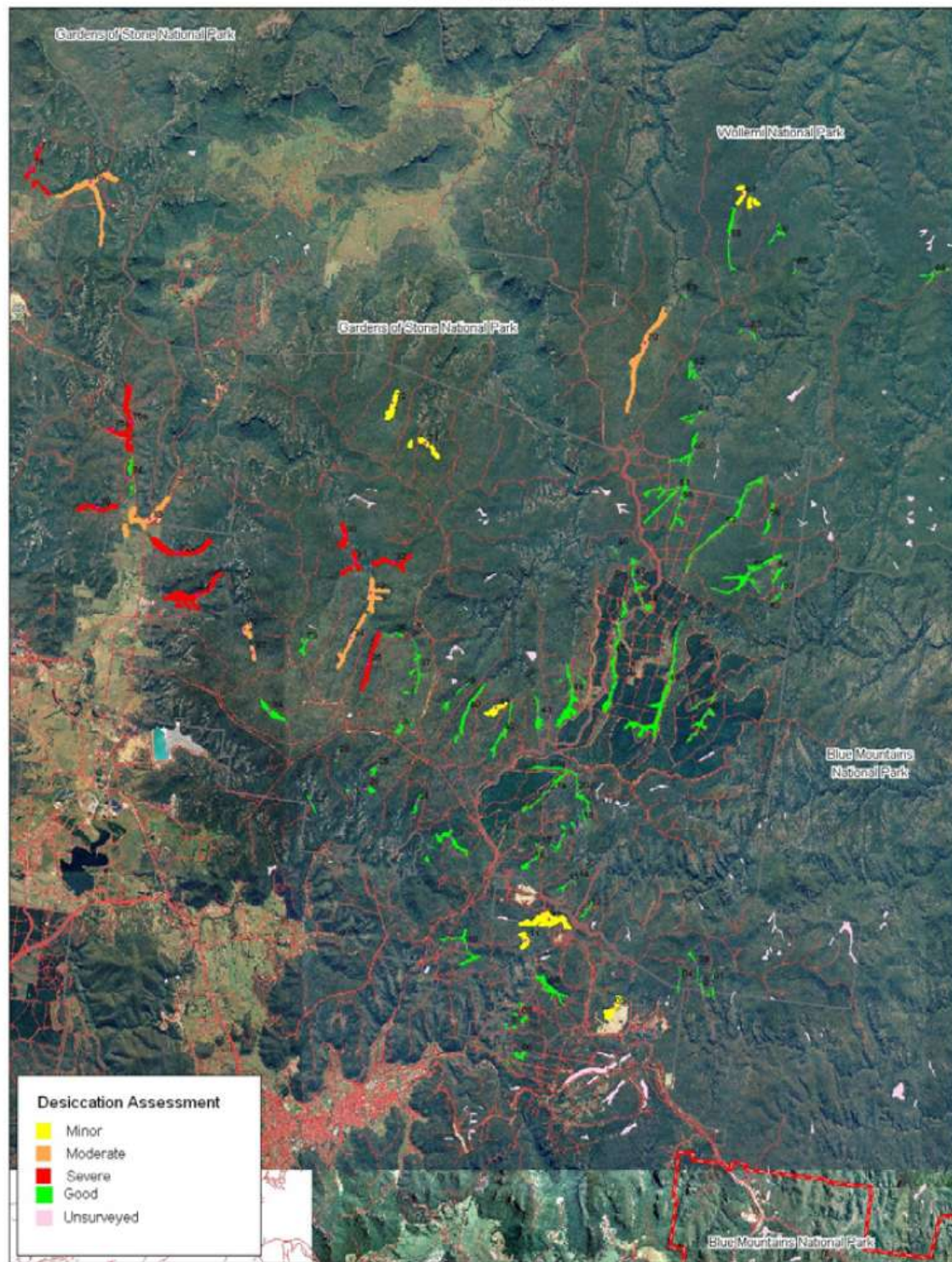
approval. If the Commission were to determine that the proposal should be approved following a major review, then the Colo Committee recommends that a staged approval process be adopted. In addition there should be triggers requiring an immediate review of consent conditions, should impacts be observed in the environmental matters of national or international significance. There has been too much controversy, too many errors, and too many unexpected adverse impacts associated with the operations of both these underground mines to permit consent for a period of 25 years as requested by the applicant. The Colo Committee believes that self-regulation and adaptive management does not work, as the regulator having a vested interest in finding no impact, consequently finds none. A large component of this submission will illustrate that self-regulation at the Angus Place Mine has been unsuccessful.

### **Past impact of longwall coal mining**

There has been a long history of impact by longwall coal mining in the time of my involvement since 1980. Originally, when significant cliff collapse occurred in the original Angus Place mine, we were told that these were ‘natural’ and not due mining. In the 1980s Angus Place even proposed to mine under Blackfellows Hand Cave (now Mayinygu Marragu Aboriginal Place) and it was the Colo Committee who pointed out that this was possibly the major Aboriginal art site on the whole western side of Wollemi NP. The longwalls were then moved, and only a kilometre away there was a huge cliff collapse of over 100 metres of cliff line. Mining companies then were forced that dropping the surface up to 1.5 metres did cause cliff collapses and crack pagodas.

The Baal Bone Colliery mined under Long Swamp Creek, the major upper tributary of the Cocks River. I have been watching those swamps since 1980 and what was predominantly a shrub swamp is now mainly a sedge swamp, as shrub swamp disappears in dry periods while sedge is more adaptable. I can definitely confirm as an ecologist that these swamps have radically changed after mining (despite denials by mining companies). Similarly, the ‘Save our Swamps’ report (Hensen, 2010) done by the Blue Mountains City Council found that there was significant desiccation of swamps in the west of the area that closely aligned with areas that had been longwall mined. The map from this is shown next page.

## DESICCATION



The 'Save our Swamps' (Hensen, 2010) report noted:

The distribution of most of the severe to moderate cases of desiccation was clustered in the western areas of the Newnes Plateau. While this distribution generally overlaps the current extent of longwall mining under the Newnes Plateau the aerial survey was unable to determine the cause of the dieback of the surface swamp vegetation. Potential causes include the dewatering and desiccation of swamp substrates due to mine subsidence, surface cracking and the subsequent loss of groundwater, the effects of flushing

Despite this, mining companies such as Centennial continue to assert that subsidence under longwall mined areas does not affect swamps or other vegetation.

### **Believing consultants employed by the proponent – a history of error**

The Ecological Society, environmental NGOs and reputable consultants have long pushed for environmental studies on contentious developments such as mines to be carried out by accredited and independent consultants that are NOT paid by the proponent. The problem is clear and was noted in the 1930s by novelist Upton Sinclair (1932) when he observed:

*It's difficult to get a man to understand something when his job depends on him not understanding it.*

As a former environmental consultant who had carried out many flora surveys in the Greater Blue Mountains (including the original Gardens of Stone Vegetation Survey) I am very aware of the pressure that can be put on consultants to **find what the proponent wishes to find**. Indeed I and another consultant have lost work when we refused to modify the conclusions we reached. I have sat through meetings with consultants and mining companies where it was seriously maintained that dropping the surface by 1.5 metres due to subsidence was not causing cliff collapse. That is now acknowledged to have been wrong. I have sat through other meetings where other consultants where it has been maintained that subsidence under swamps would cause cracking but that we should not worry about this as they would be 'self-sealing'. History and observation have shown this not to be the case. I have similarly sat through meetings with Centennial's consultants where we were assured that because the depth was greater, the cracking would not reach the surface and hence the swamps would not be damaged. A nice drawing was even provided to show the cracking stopping before it reached the surface. However this is not science, it is a yet another prediction based on what the proponent would like to hear. Just as the claims that subsidence would not cause cliff collapses in the 1980s were false, claims that subsidence does not affect the endangered THPSS are equally suspect. The evidence (which has been documented fully by the Colong Foundation for Wilderness so I will not repeat it here) gives good grounds to believe that such claims are not correct. Accordingly, any organisation or government that claims to support the Precautionary Principle (as both State and Federal governments claim to) should apply the principle to deny longwall mining under the THPSS EEC and the international recognised unique pagoda landform and cliff faces.

### **Significance of Newnes Plateau for biodiversity and geodiversity**

Newnes Plateau is the highest plateau in the northern Blue Mountains and has long been recognised as an important area that some plants will retreat to in a climate change world. The Greater Blue Mountains World Heritage Advisory Committee has supported the creation of GOS2 which includes Newnes Plateau. The 'Save our Swamps' project of BMCC noted:



Newnes Plateau Shrub Swamps formed during the last glacial period 10,000 years ago and are an irreplaceable part of Australia's natural heritage. Newnes Plateau Shrub Swamps are listed as an endangered ecological community under both the *NSW Threatened Species Conservation Act 1995* and under the federal *Environmental Protection and Biodiversity Conservation Act 1999* due to their restricted distribution of less than 650 ha and their vulnerability to a range of threats. Newnes Plateau Shrub Swamps are also the key habitat of the nationally endangered Blue Mountains Water Skink and the Giant Dragonfly. Only 160 ha (25%) of Newnes Plateau Shrub Swamps are provided with a reasonable degree of protection within the Wollemi, Blue Mountains and Gardens of Stone National Parks while the remaining 75% occur predominately on Forest NSW estate as well as on adjacent crown and private lands.

Newnes plateau is actually a botanical wonderland in terms of its high altitude vegetation, its shrub swamps and the pagoda flora. It has tremendous natural heritage value and would have been added to Wollemi NP in 1979 if it had been possible. Similarly it would have been added to the original Gardens of Stone NP as it was the largest section of the original park proposal in 1985. Similarly, Newnes Plateau has tremendous geodiversity value. This is due to its pagodas (Washington and Wray, 2011) its shrub swamps, its cliff lines, and its sand dunes dating back to the last Ice Age. The extension area underlies the top part of Carne Ck, and incredibly seeks to mine under this. This contains spectacular pagodas and cliff faces. The proposal admits that platy pagodas of international significance will suffer 'Localised spalling to 1% of the surface area of pagodas within the angle of draw'. Regarding cliffs it notes 'Localised spalling is predicted to 1% of one cliff adjacent to LW1014B. No impacts are predicted for the other two cliffs (AP-CL1 and CL2) that occur within the angle of draw'. Incredibly it claims 'Longwall mining by the Project is unlikely to have a significant impact on swamps' even though longwalls 1016 and 1017 pass under Trail 6 swamp and others pass under Tri Star swamp.

The botanical significance of this proposal is such that the Birds Rock Flora Reserve was created by State Forests to protect that area, which is now due to be longwalled. The proponent notes in 5.18 that:

*The Birds Rock Flora Reserve is located within the Extension Area, as shown in Drawing Nos. MSEC593-01 and MSEC593-02. The potential impacts on this site include changes in surface water drainage (refer to Section 5.4), surface cracking (refer to Sections 4.5 and 5.9), and fracturing and spalling of the exposed rock formations (refer to Section 5.8).'*

The proponent is thus quite clear that there will be significant impact on a Flora Reserve of high conservation value. If you change surface water drainage then you change the plant communities that can survive there, thus damaging this conservation significance. The purpose of a flora reserve is to conserve flora and fauna, and these reserves are the equivalent of IUCN category 2 – National Park. Some flora reserves in NSW have been inscribed onto the world heritage list of properties, for example flora reserves in the Central Eastern Rainforest World Heritage property. The Birds Rock Flora Reserve should be protected from predicted subsidence damage in a protection zone.

This proposal risks damaging endangered shrub swamps, internationally significant pagodas, significant cliff lines and an important Flora Reserve. Hence why it should not proceed,

certainly not as outlined, and should be subject to a stepped approval process rather than the long-term blanket approval sought by the proponent.

## **Recommendations**

Two sets of hearings on the Angus Place and Springvale mining proposals should be held concurrently by the Planning Assessment Commission. The Commission should permit questioning of parties to these hearings regarding either mining proposal. The responses to these questions should be provided in a reasonable timeframe to permit all parties to submit a submission in reply if they so wish.

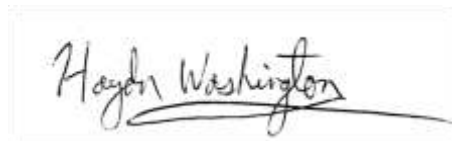
The mining footprint must be significantly lessened and mining methods reduced in intensity to protect Carne Creek, pagodas, cliffs and the nationally endangered swamps associated with these proposals. Centennial Coal must be required to consider alternative bord and pillar mining methods for its proposed Angus Place extension. Centennial's Airly mine in the Capertee Valley operates to a depth of 405 metres underground in the same geology. If Centennial can operate Airly Colliery as a bord and pillar mine, then it can also operate Springvale mine in this manner.

## **The proposed Angus Place mine extension should not be granted development consent unless:**

- Development consent is staged, with a review every five years;
- Consent should also be subject to performance standard triggers that ensure the health and integrity of receiving waters and heritage values;
- If a performance standard trigger level is exceeded, then the consent approval is immediately reviewed to address the failure;
- Surface cracking of stream beds, under swamps or of pagodas, rock outcrops or cliffs is prevented;
- The intensity of longwall mining is reduced so that all **nationally endangered swamps are protected** – this includes shortening longwalls 1017 and 1016 to protect Trail 6 swamp and shortening longwalls 1004, 1005 and 1006 to protect the Tri Star Swamp complex;
- Narrowing and/or splitting longwall panels 1007, 1008, 1009 and 1010 occurs to prevent fracture damage to the Birds Rock Flora Reserve;
- Splitting longwalls 1013 and 1014 occurs to prevent damage to pagodas and cliffs;
- All proposed discharge of up to 43.8ML/day of mine effluent to the Coxs River via the Springvale-Delta Water Transfer Scheme (SDWTS) is treated by reverse osmosis technology to remove salt and metals to a standard that protects, the Coxs River, the downstream drinking water supply and near-pristine ecosystems in the World Heritage Area;

- In the event of a malfunction of SDWTS, such as during and following a bushfire, emergency discharges must be reinserted underground into the mine and under no circumstances released to the World Heritage Area via Wolgan River or Carne Creek;
- Reinserted mine effluent must be properly treated and not allowed to re-emerge in an unauthorised or unregulated manner;
- Emergence of near surface groundwater with elevated levels of salt or metal precipitate in Carne Creek must be prevented;
- Representative sites for piezometers are chosen for the groundwater in swamps and streams by a third party agency;
- Monitoring guidelines clearly specify how the condition of groundwater dependent indicator plant species and the general condition of groundwater dependent ecosystems will be performed;
- All past tracks and trails created by Centennial Coal and its consultants, including those established by trail bikes, be recorded and plans set in place as soon as practicable to rehabilitate these trails on an on-going basis and as part of the rehabilitation program for this mine;
- Subsidence monitoring should be performed by a third party agency, such as the Office of Environment and Heritage, and monitoring paid for by Centennial Coal.
- Monitoring of surface flow and near-surface groundwater creates a comprehensive picture of the sub-catchments affected by mining; and
- Monitoring of changes in ecosystem condition include well exposed, wide angle impacts of affected areas with GPS co-ordinates.

Yours faithfully,



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Hon. Sec, The Colo Committee

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## References

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