

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



Objection to Airly Colliery modification 3 – (extending the 162/91 consent for a year) due to *inappropriate consent conditions*

By the Colo Committee

Dear Sir/Madam,

Introduction

The Colo Committee is an environment group that has been involved with Wollemi and the Gardens of Stone area since the 1970s. I write this submission as the Hon. Secretary of the Colo Committee, a position I have held since 1974. The Colo Committee prepared the original Gardens of Stone National Park nomination in 1985 (in conjunction with other conservation groups). The Colo Committee has been visiting the Genowlan and Airly mesas (now Mugii Murum-ban SCA) since 1980, studying both the biodiversity and geodiversity of this unique area.

I write as the Hon. Secretary of the Colo Committee, but I am also a plant ecologist and environmental scientist and first visited Genowlan and later Airly mesas around 1980. I am the ecologist who nominated both the Genowlan Point Heathland Endangered Ecological Community under the TSC Act and *Pultenaea sp. Genowlan Point* (which I co-discovered with Jan Allen of the Mt Tomah Botanic Gardens) under both the Threatened Species Conservation Act 1987 and the Federal Environment Protection and Biodiversity Conservation Act (nominated successfully as critically endangered). I have also studied the geodiversity of the Gardens of Stone Area, especially the 'pagoda' rock formations. With my co-author, geomorphologist Robert Wray, I wrote the major peer-reviewed scientific paper on the geomorphology and geoheritage of the pagodas (Washington and Wray, 2011), published in the NSW Proceedings of the Linnaean Society. I have been on field trips to Genowlan and Airly dozens of times, and know the area very well.

I have also until recently been a Board Member of the Greater Blue Mountains World Heritage Advisory Committee. In both this capacity, and in my capacity as a member of environmental NGOs, I have held meetings with Centennial Coal over many years. I am still officially a member of the Airly mine's community advisory committee (though I have not been able to attend recent meetings, I attended early meetings). During these meetings, I have discussed with Centennial Coal the proposal to mine under the SCA, and the means of assuring that this highly dissected plateau is not damaged by coal mining. I took the company's chief subsidence engineer walking into Genowlan Point, where we discussed specifically how the unique geodiversity, biodiversity and scenic beauty of Genowlan mountain must not be damaged by subsidence. The subsidence engineer *completely agreed*. Following negotiation between Centennial and environment groups such as the Colong foundation for Wilderness, the Blue Mountains Conservation Society and the Colo Committee, Centennial Coal supported the creation of a SCA, now called Mugii Murum-ban SCA. At that time conservation groups *praised Centennial Coal for its support and its iron-clad agreement that it would only take out half the coal*, leaving the other half to protect the unique biodiversity and geodiversity of Genowlan and Airly mesas. We are disappointed that Centennial Coal now *seeks to backtrack on its earlier agreement*, so that the current proposal seriously threatens the extremely high conservation significance of this SCA. For these reasons the Colo Committee strongly opposes this proposal in its current form, given it is a total abandonment of the earlier (environmentally responsible) position taken by Centennial. This proposal will significantly damage Mugii Murum-ban SCA, an area the Greater Blue Mountains World Heritage Advisory Committee would like to see added to the Greater Blue Mountains world Heritage Area once (responsible) mining has concluded.

Biodiversity, geodiversity and heritage significance

Genowlan and Airly mesas are *simply superb*. They are the 'jewel in the Crown' of the highly significant uplands that surround the Capertee Valley. While the mesas are only around 3000 ha in size, they contain at least 8 rare or threatened plant species and several threatened animal species. They contain the largest known populations of (and are probably the site of evolution for) the rare plant *Epacris muelleri*. They contain an endangered

ecological community (Genowlan Point Heathland) and a critically endangered plant species (*Genowlan sp. Genowlan Point*) under the EPBC Act. They contain superb examples of both internationally recognised ‘platy’ pagodas (e.g. City in the Sky) and nationally significant smooth pagodas. They contain 80 metre sheer cliffs, slot canyons (e.g. Valley of the Kings, the Hidden Valley and the Grotto, and tributaries to the east). They contain on Mount Airly fascinating historic ruins of the shale oil industry (recognised and listed by the NSW Heritage Office). They also contain more recent ruins of diamond mining of an alluvial bed of a paleo-stream on Airly Turret (the larger basalt mount known as Airly turret to the east of Genowlan Mountain). Taken together, the conservation significance of these mesas maxes out *off the top of the scale*, hence why they were recognised in the creation of Mugii Murum-ban State Conservation Area. There is no doubt that the proposed subsidence of up to 1.8 metres will damage the geodiversity and biodiversity and historical significance of this wonderful area. Such impacts are not acceptable in a SCA. **Hence the current proposal must be refused in its current form.**



The danger of major subsidence damaging geodiversity and biodiversity

The geodiversity significance of these highly dissected plateaus has been increasingly recognised over the years. While the Department of Mineral Resources at the 1993 Airly Commission of Inquiry unfortunately referred to the ‘pergolas’ instead of the ‘pagodas’, since that time recognition of the unique pagoda landform has made through government documents (e.g. Washington, 2001), through scientific papers (Washington and Wray, 2011) and at the Geodiversity Conference held at Port Macquarie in 2010 (see:

http://www.resourcesandenergy.nsw.gov.au/_data/assets/pdf_file/0006/358584/GGHG_2010_Washington_Wray.pdf).

Centennial has previously only extracted *half the coal* under significant pagodas areas on Bungleboori creek to ensure these did not collapse. Indeed they boasted of ‘how responsible’ they had been in doing this. It was put to environment groups that if they could do it safely there, then they could do it safely under Genowlan and Airly – *taking only half the coal*. Under negotiations with Alex Brown and Mary-Anne Crawford of Centennial Coal regarding the creation of Mugii Murum-ban SCA, Keith Muir of the Colong Foundation for Wilderness and myself (Haydn Washington) of the Colo Committee, Centennial then informed us that they *planned only to take half the coal* under the area, leaving half the coal to support the highly significant surface of what is now the SCA. My recollection is that this was also stated to the Greater Blue Mountains World Heritage Advisory Committee. **Sadly, the current proposal totally backflips on that commitment.** The reason seems to be simply that the price of coal has slumped since then, and hence the company wishes to mine more coal to make a similar profit. This is *unacceptable under a State Conservation Area* and the Department of Planning and Infrastructure should stop the current proposal, or only approve it if it **goes back to the previous commitment** to take only half the coal under the *whole* of the SCA.

Page 11 of the June 2014 environmental assessment states that modification 3 would extend the life of the existing consent to 31 October 2015, implying no modification of inappropriate consent conditions. The proposed modification would include a mine method and design that allows ‘Full extraction in areas outside Environmental Protection Zones with supercritical void widths’ and ‘**maximum subsidence of 1.8 m**’ (page 11, Section 3.1 mining under the proposed modification). **Subsidence of 1.8m is totally unacceptable must be overturned by any extension of development consent under Modification 3.**

Figure 5 of the EA shows that the bulk of the SCA is not in the so-called ‘protection zones’ (see below). More than three quarters of the mesas will be subsided by 1.8 metres. Where this has occurred elsewhere in pagoda country with longwall mining, this has caused hundreds of cliff collapses and cracking of pagodas (e.g. Angus Place and Baal Bone Collieries).

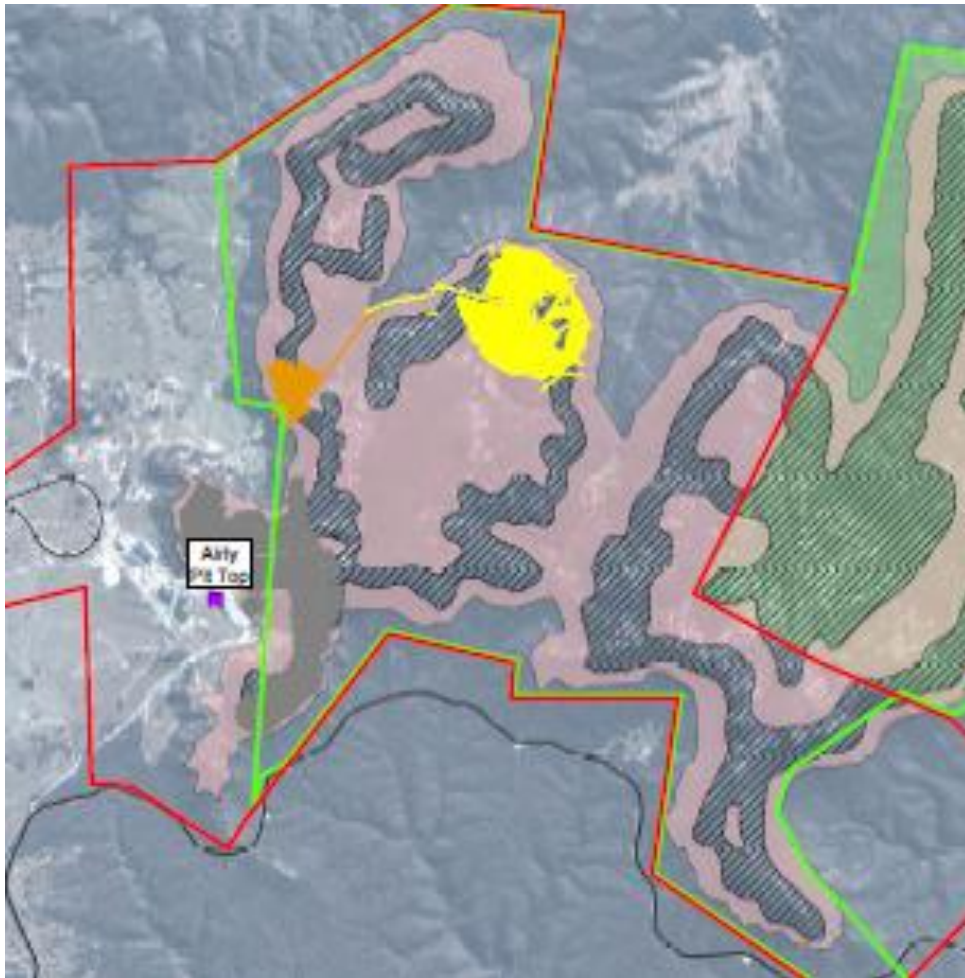
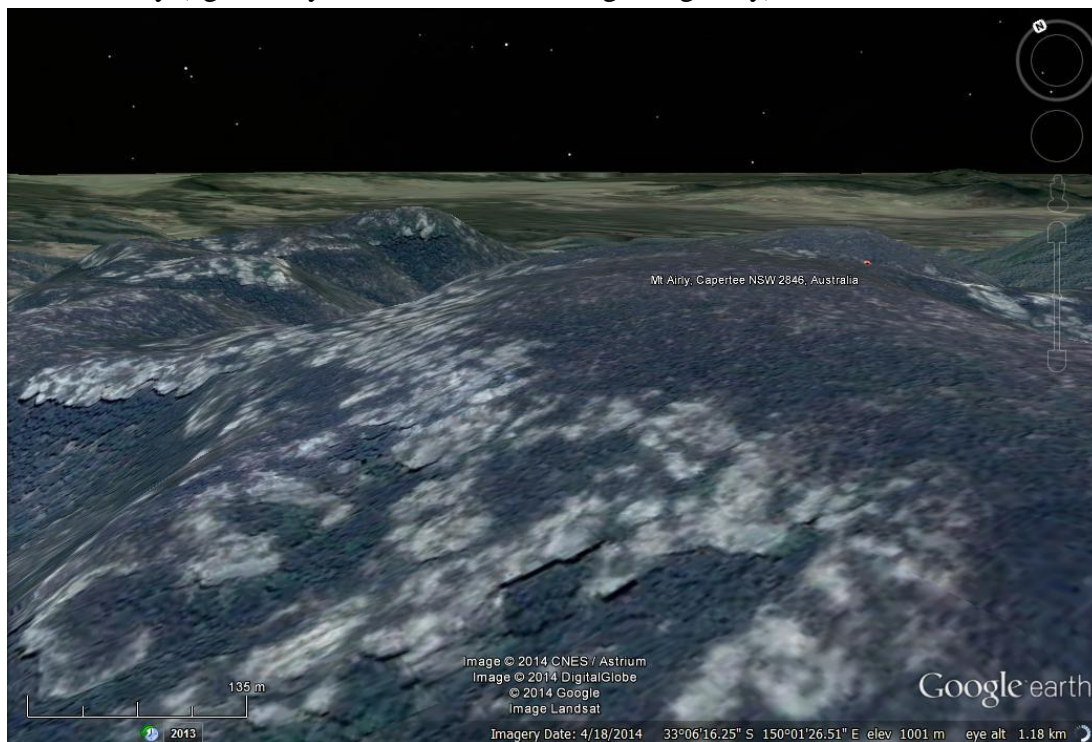


Figure 5 (above) is deliberately kept vague and at low resolution in the proposal document to hide the enormity of the areas that will be subsided by a staggering 1.8 metres. However, since the Colo Committee knows the area very well, we point out that they will threaten with collapse and cracking. Below shows a series of Google Earth snapshots. The Colo Committee has many slides of most of these areas but does not have digital scans of these, now in the short 2 week timespan have we been able to scan these. Hence I use snaps from Google Earth. It should be pointed out that Google Earth always makes topography look flatter than it actually is. The slopes shown are thus actually steeper. Some key areas in the 1.8 metre subsidence (= collapse and cracking) zone are:

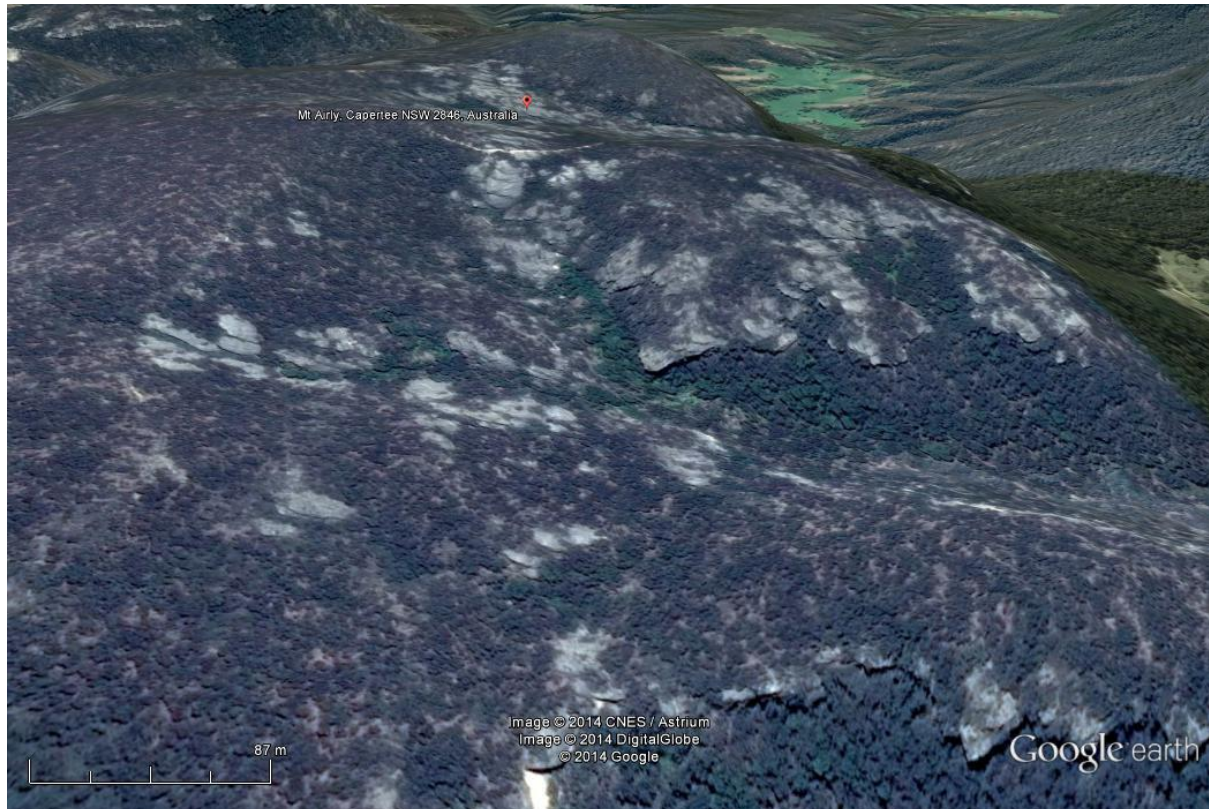
- the smooth pagodas shown below near mount Torbane (visible from Mudgee highway),



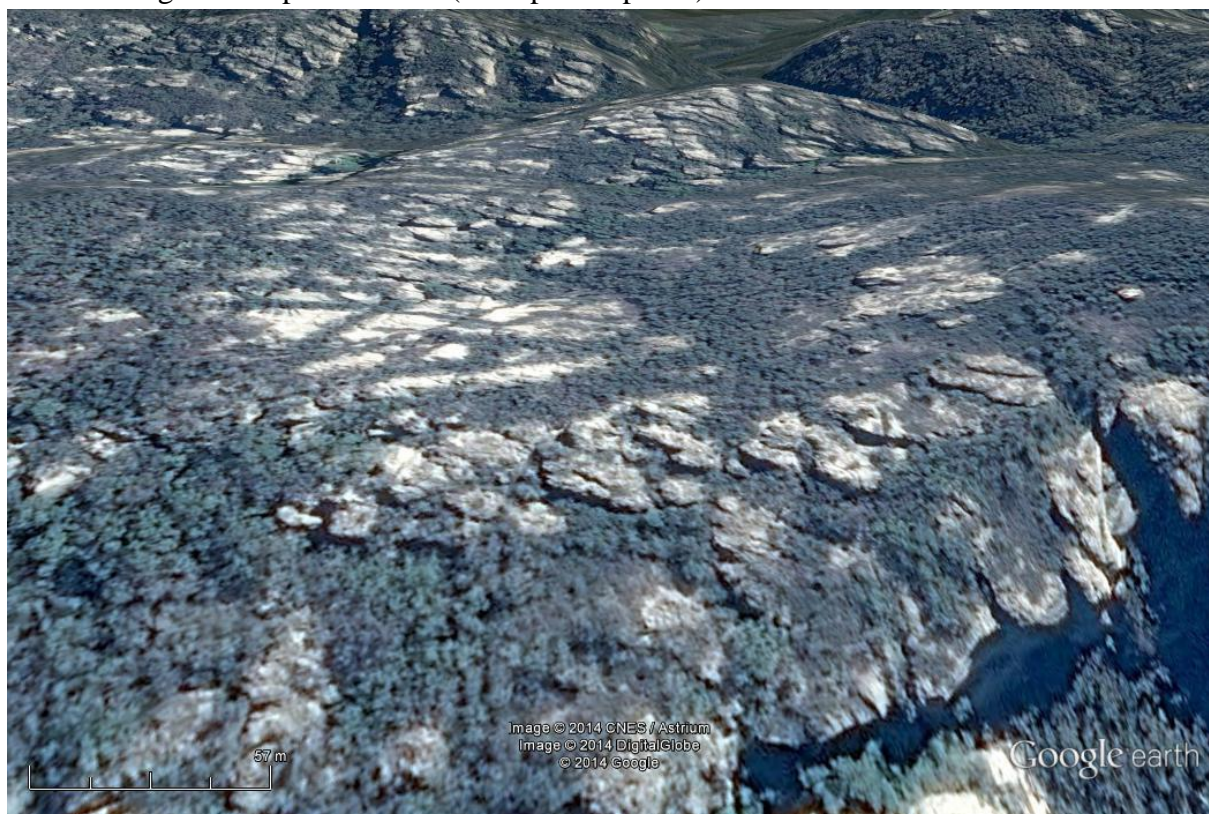
- the vast majority of the superb steeply-sloped pagoda band on the west of Mount Airly (again very visible from the Mudgee highway),



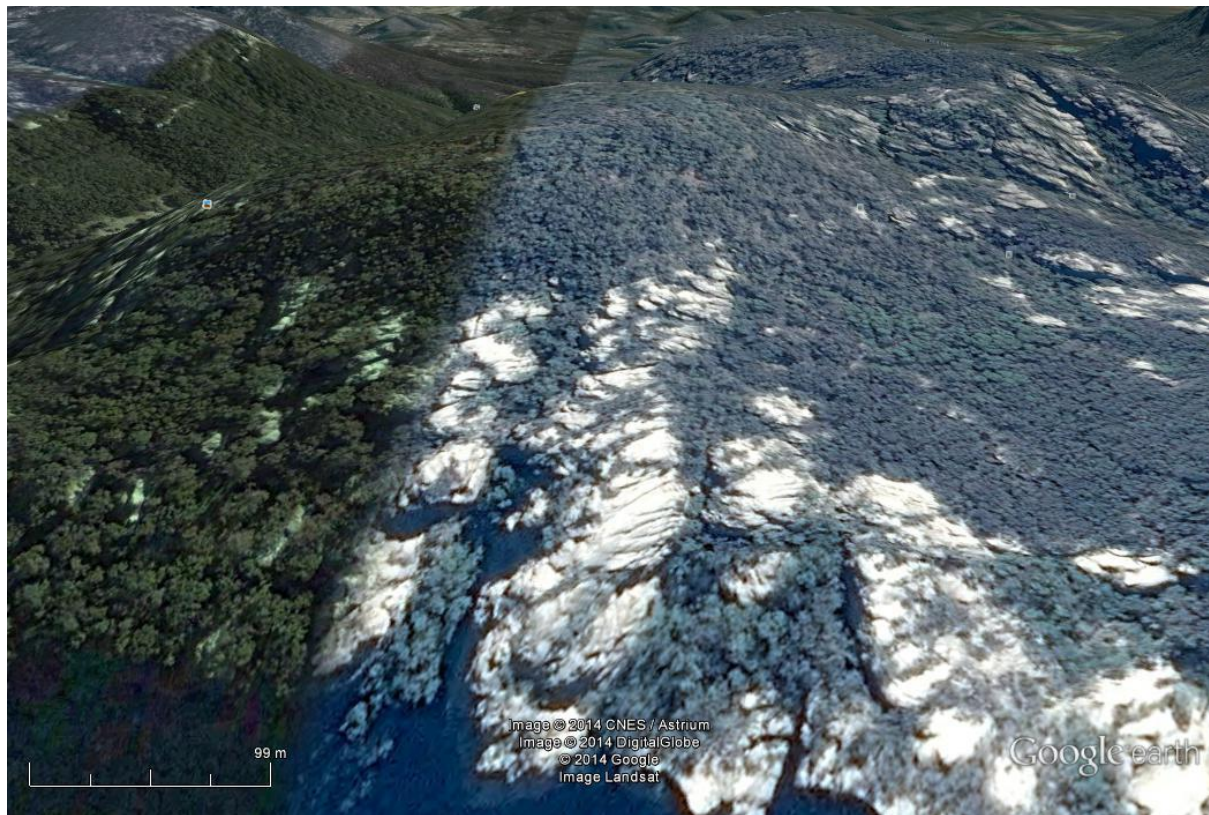
- very steep internal cliff-lines on the east side of Mt Airly (note the tall cliff with shadow is in the 1.8 metre subsidence zone and will almost certainly collapse)



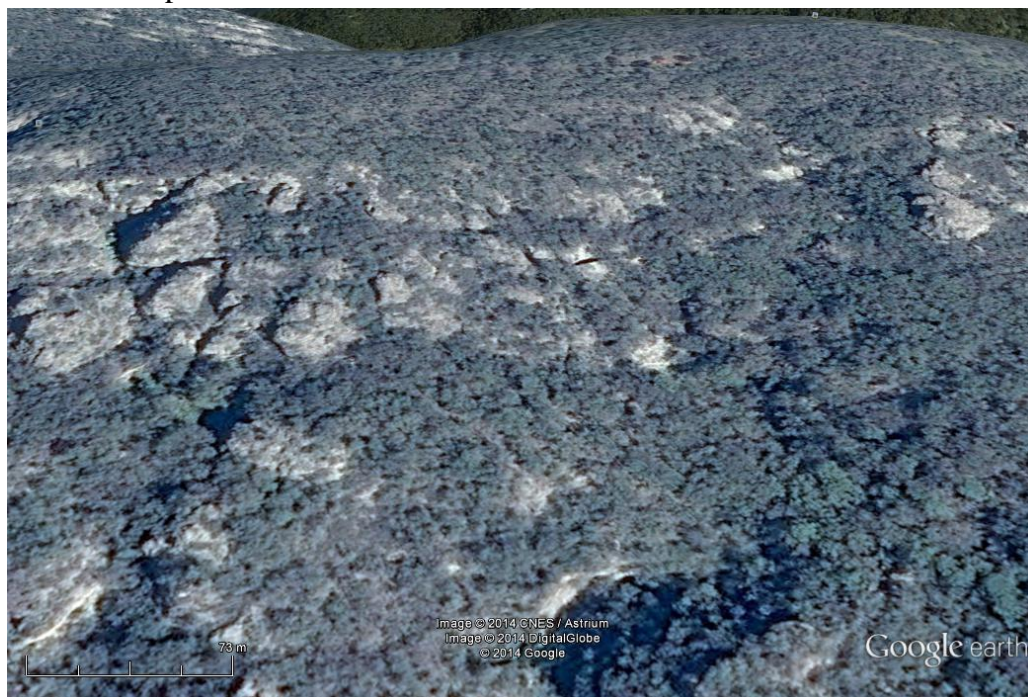
- pagodas east of Genowlan Mountain trig, note cliffs and caves shown in shadow in Google Earth photo below (front part of photo)



- pagodas west of 'Pappy's Pass' (where the road from Col Ribaux's property emerges on the south of the plateau). Note the deep canyon marked with trees in centre-photo that passes through the pagoda complex and will likely be shattered and collapse.



- pagodas on the south-east side of Point Hatteras which drop around 50 metres into a creek on the left of photo (extremely likely to collapse). Note also the tall pagodas undercut by caves and slot canyons on the left of photo. These are almost certain to collapse with 1.8 metre subsidence.



- pagodas to the north-west of the Grotto (centre photo) with cliffs and probably overhangs that will collapse.



1.8 metre subsidence will inevitably cause collapse and cracking of superb *internationally recognised* platy pagodas (Washington and Wray, 2011) and nationally significant smooth pagodas (Washington and Wray, 2014). They are likely to cause cliff collapses. It should be remembered that subsidence of around 1.5 metres in Baal Bone Colliery caused 124 cliff collapses in 2 years, as reported at the 1993 Airly Commission of Inquiry by the Department of Mineral Resources (Simpon, 1993; Washington, 2001). This is **simply not acceptable in a State Conservation Area**. Mining under a SCA is acceptable if it *does not damage the surface*, however Centennial coal has reneged on its previous agreement and the current proposal will significant damage the vast majority (over 75% of the mesas) of the SCA.

While not in the current proposal area, we note that their protection zones do not appear to protect the huge pagoda complex area on the southern edge of Genowlan Point, including the major caves involved, one of which is an Aboriginal site with a boomerang stencil. Any modification 3 consent must require maximum tilts and strains specified as specified on page “I” of the executive summary and on page 29 in section 6.1. **There must be no exceptions to vertical subsidence being a maximum of 125mm, a maximum tilt of 2.5 mm/m; and a maximum strain of 2.0 mm/m.**

The proposed extension of consent by one year for mining operations must specify subsidence criteria that are in the executive summary and page 29, ***with no exceptions***.

The December 2013 EPBC referral, for example, documents an inappropriate proposal for a total subsidence of 0.5 metres under the historic oil shale ruins. Such variations are unacceptable. The subsidence criteria proposed in the executive summary of the June 2014 environmental assessment for Modification 3 must be the criteria used in the modification consent, not those in 162/91 consent.

Consent 162/91 is *no longer appropriate*

The 162/91 consent is out of date and any modification of consent for continued mining operations at Airly must ensure *minimal surface subsidence*. This is the only possible strategy to protect a State Conservation Area that is actually of World Heritage significance. The Colo Committee does not accept that it is appropriate to continue mining for a one year under the old regulatory framework that permits subsidence of 1.8 metres and the destruction this will cause. The development consent for this mine should lapse - a new development application is required for the entire operation.

In this interim period, there should be no further consideration of 1.8 metres of vertical subsidence and this criterion must not be migrated into the modification 3 consent. Further, the proposed new major project assessment, called the Airly Mine Extension Project (SSD 12_5581), must consider environmental management within the existing mining lease. Airly Mine Extension Project environmental assessment must not be constrained to the new lease area, as has been proposed by Centennial Coal. **The regulatory framework for development control regarding the expiry of old consents must require an environmental review and issue of a new consent for the entire mining operation.** The existence of mining lease 1331 is irrelevant to the development control of activities under NSW planning legislation.

Oil Shale Ruins should be treated as an *area of special significance*



In the July 2014 environmental assessment, Centennial Coal ignores the oil shale heritage in its mining operation area. Centennial Coal has not indicated these important ruins (recognised and listed by the NSW Heritage Office) on Figure 6 on page 31 of the June 2014 environmental assessment. These ruins are sensitive cultural features of great historic significance and should have been indicated on Figure 6.

Centennial does not propose in its June 2014 environmental assessment to protect the oil shale ruins from pillar splitting or quartering, such as proposed in relation to the 'stone cottage'. The allegation made by RPS Australia East Pty Ltd (April 1998) that the Airly Shale Mining Complex is 'only of local heritage value' is bizarre and contrary to the view of all who have visited the area. Those who have examined these ruins are universally impressed at the level of preservation and unique character of the miner's cave dwellings on Mount Airly. We know of no better preserved site for such heritage in NSW, including Newnes and Glen Davis. This is why they were listed by the NSW Heritage Office due to their historic significance. The historical significance of these old shale miner ruins was recognised at the 1993 Airly Commission of Inquiry (Simpson, 1993) which we attended for the full 6 days.

The Colo Committee *opposes any proposed mining operation that does not adequately identify or protect these historical oil shale ruins*. We are greatly disappointed with the failure by Centennial to refer to and assess the heritage values of these ruins in the proposed Modification 3 environmental assessment. *They well know their true significance*.

We believe that the proposed mining operations will (if approved) have environmental impacts on the oil shale heritage, which is of singular significance. **Centennial Coal must not be split or quartered under the Airly oil shale ruins.**

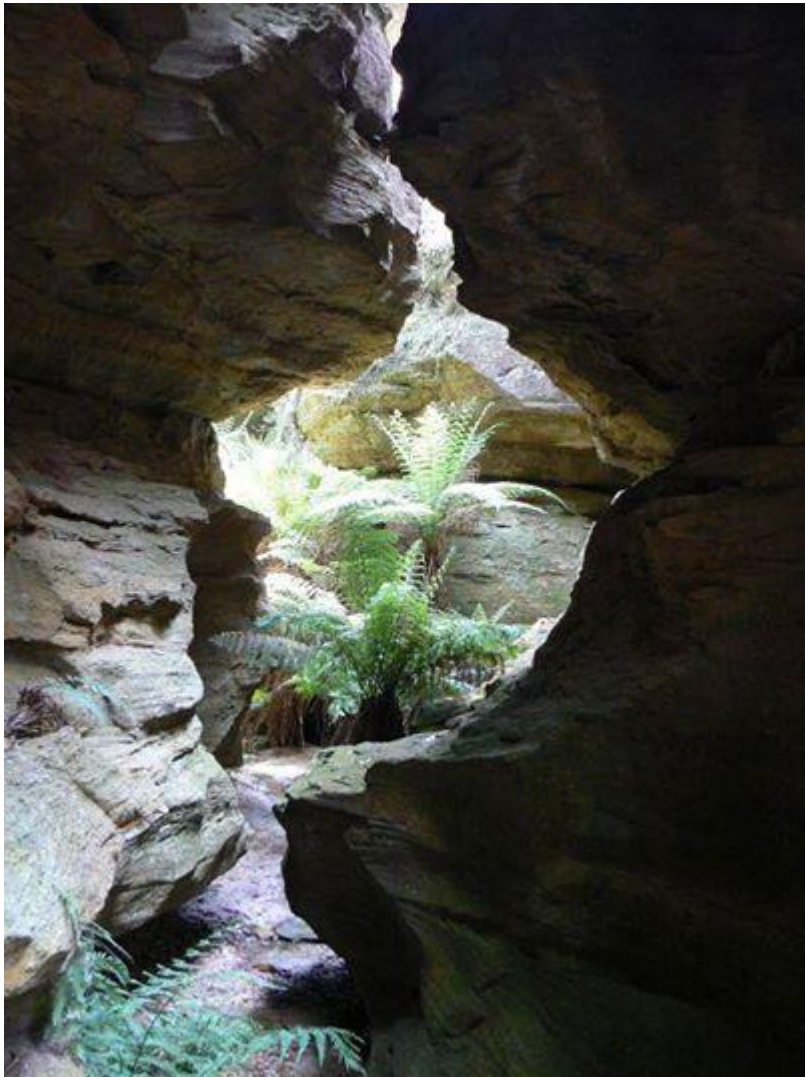
Water management and management of product and rock waste piles

We understand that Centennial has a plan to separate fine and coarse mine wastes may subsequently lead to a proposal to market a by-product of coal fines to the local power plant market. The plan may explain why large stockpiles of coal have accumulated at the mine. The management plan needs to consider the landscaping of coal product and waste rock piles in relation to parks and popular tourist viewing points, such as Pearsons Lookout. Visually prominent waste and product heaps must be appropriately screened. The mess created at the head of the Wollangambe River catchment by Centennial's Clarence Colliery **should not be repeated here at Airly Colliery** in the Capertee River catchment. The company must screen its operations and prevent visual blight in a popular tourist area - the famous Capertee Valley.

Airly Colliery should be subjected to continuous rehabilitation and landscaping. The company owns large tracts of cleared land at Airly. Centennial should remove cattle and revegetate its properties to manage its properties in a manner more consistent with the adjoining national parks and reserves. The coal waste piles should be top sealed with clay as soon as possible to prevent contamination of groundwater resources through heap leaching.

Such leaching leads to more or less permanent source of downstream pollution, and can produce both acid mine drainage and heavy metal and organic pollutants.

A final point regarding water is the importance of protecting the *hydrology of the Grotto*, a slot canyon on Genowlan that in dry summers has virtually the only permanent pools of water. Much of the catchment just outside the Grotto is proposed to have full subsidence of 1.8 metres. The other Ribaux brother to Col (Bob?) who was involved with the diamond mine, at the Airly Commission of Inquiry in 1993 reported that when mining he had found ironstone bands with water flowing towards the Grotto. He expressed concern then that subsidence could shatter such bands and thus reduce (or even stop) the flow of water to the Grotto. The Grotto of course is a famous tourist feature that people come from far and around to visit. Its tourist value would be vastly diminished if the water stopped flowing. It would also remove one of the few permanent water supplies for wildlife on the mesa.



The Grotto, Genowlan mesa

Impacts on the World Heritage Area



Pagodas and view south of Pt Hatteras

The Greater Blue Mountains World Heritage Advisory Committee believes that the Mugii Murum-ban SCA **should be added to the Greater Blue Mountains World Heritage Area once mining has been completed** (I know this well as I was a member of the AC until recently). Water impacts are critical as they affect the World Heritage Area downstream. Omission of these impacts and failure to consider downstream impacts on the World Heritage Area in the modification 3 proposal is of concern. There will be water quality impacts, they should be part of the modification assessment process and the potential to pollute the World Heritage Area *should be deemed to be a controlled action*.

The proposed operations under Modification 3 are very likely to discharge pollution into Airly Creek. Such discharges would impact on the Gardens of Stone National Park, and thus the Greater Blue Mountains Area. Airly creek flows directly into the adjoining World Heritage Area.

Water treatment of the effluent from this colliery to remove salts or dissolved metals should be considered. Airly Creek is in a very good condition but has small flows. Mine effluent

discharges are likely to have a much greater effect on the previously pristine downstream ecology.

This proposal has potential to seriously damage this SCA, which is proposed for addition to the World Heritage Area when responsible mining (that doesn't damage the geodiversity of biodiversity) ceases. This proposal is thus inappropriate in that it will damage a superlative area that would otherwise be recognised and included in the Greater Blue Mountains World Heritage Area.

Impacts of potential changes in mining operations

The Colo Committee remains concerned that the proposed partial (and full) extraction of the coal pillars will see a much greater risk of mine subsidence related damage in the Mugii Murum-ban State Conservation Area. Proposing glibly that the majority of the SCA should be dropped by 1.8 metres is ***not acceptable*** and makes a mockery both of the meaning of a State Conservation Area, but also of responsible planning and mining laws.

The use of 'weasel words' in the June 2014 environmental assessment in relation to mine subsidence must not result in changes to mining methods that greatly increases impacts on the natural environment, particularly internal cliff-lines and pagodas, as well as on oil shale heritage sites. **Centennial Coal previously agreed to mine responsibly under Airly and Genowlan, which is why a State Conservation Area was created.** Now it seeks to go back on that responsible commitment (for which it was praised by environment groups at the time). Mine intensification ***by stealth*** is inappropriate and the ambiguities in the environmental assessment regarding subsidence must not be migrated into the development consent. Accordingly, the Colo Committee urges the Department to ***refuse the application in its current form.***

Thank you for the opportunity to comment on this referral.

Yours faithfully,

A handwritten signature in black ink that reads "Haydn Washington". The signature is written in a cursive style with a long, horizontal flourish extending to the right.

Dr Haydn Washington
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References

Simpson, W. (1993) 'Underground coal mine proposed by Novacoal Australia Pty Ltd, Mounts Airly and Genowlan Area, Capertee Valley, City of Greater Lithgow' Report to the Hon. R. Webster, Minister for Planning by William Simpson, Acting Chairman, Commission of Inquiry

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Washington, H and Wray, R. (2014) 'The Geodiversity and Geoheritage values at the International and National Level of the Greater Blue Mountains World Heritage Area (and areas recommended to be added to it by the Greater Blue Mountain World Heritage Advisory Committee)', report written for the Greater Blue Mountains World Heritage Advisory Committee in support of National Heritage Listing for geodiversity of the World Heritage Area.