

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

Dear Sir/Madam,

State Significant Project – Springvale Mine Extension (SSD 12_5594)

The Newnes Plateau is a *unique* place with special biodiversity that is not found anywhere else. It should have been part of the National Parks system, but has not because of mining interests.

It includes the Newnes Plateau Shrub Swamps, which are listed as an Endangered Ecological Community at State and Federal level. The shrub swamps are concentrated in the headwaters of various creeks on the top of the Plateau, especially Carne Creek which has the largest size and number of swamps, and remains as the most pristine example. The Angus Place and Springvale extension proposals are a direct threat to the endangered shrub swamp area in the headwaters of Carne Creek.

The largest shrub swamp in Marrangaroo Creek is also in the proposed longwall area.



Rock formations with Marrangaroo Creek Shrub Swamp behind

The shrub swamps are botanically very diverse, and contain many rare, threatened or endangered plants. They are hydrologically important in filtering the water in the headwaters of creeks which eventually lead to the drinking water supply.

The other main special feature of the Newnes Plateau is the geodiversity, containing many cliffs, overhangs, caves, and pagoda rock formations.



Centre of shrub swamp in Marrangaroo Creek

The Newnes Plateau should be added to the National Parks estate, instead of continuing to suffer a ongoing cumulative degradation from coal mining activities.

Over the last few decades we have seen the expansion and almost merging of three coal mine areas on the Newnes Plateau. i.e. Angus Place, Clarence and Springvale Collieries.

I have been going to the Newnes Plateau for 33 years, have walked all over it, and have witnessed the growing environmental degradation from coal mining.

Sunnyside Ridge used to be a tranquil place with nothing there but the unspoilt bush and the fire trails. Now it has become a nightmare of mining infrastructure far and wide, with the latest Angus Place "Modification 2" consisting of huge clearings (for a power sub-station and site VS2) with all manner of construction going on, with an endless stream of vehicles coming and going, including cement trucks which have been going up to the Plateau literally for years.

There is a large amount of existing surface infrastructure including: drill sites, groundwater monitoring sites, environmental monitoring sites, subsidence monitoring survey lines, water discharge pumping sites, power sub-stations, power lines, water transfer pipelines, dams, tracks, boreholes, shafts, and vents.

The amount and scale of the infrastructure has exponentially grown in the last few years.

And now they want to do more: dewatering site clearings of 90m x 110m at two more borehole sites (Bore 9 and Bore 10) and a mine services borehole compound.

And duplication of the Springvale Delta Water Transfer Scheme (SDWTS).

And *more* exploration holes, groundwater monitoring holes, as well as subsidence and environmental monitoring activities.

Centennial Coal now wants to expand their longwall coal mining further into large areas of the Newnes Plateau, especially under the headwaters of Carne Creek, which contains the core area of Newnes Plateau Shrub Swamps. Springvale also wants to mine under the main and largest shrub

swamps in Marrangaroo Creek which flows to the Cox's River catchment area. Also part of the headwaters (including swamps) of Bungleboori Creek which flows to the east catchment.

Whilst Centennial Coal acknowledges the importance of the biodiversity and geodiversity of the area, the best that they can say is that the subsidence [which by it being a "controlled action" under the EPBC Act says that it "has, will have or is likely to have a significant impact on a matter of National Environmental Significance"] will not cause "significant" impact to the swamps, ground and surface water, and the geological features.

Who is to say what "significant" means, and what is an acceptable level of damage.

Low and Moderate are the next levels down.

To me there is no acceptable level of damage to endangered ecological communities (EEC's), and the precautionary principle of not mining at all under EEC's including the Newnes Plateau Shrub Swamps should be adopted.

Centennial also claim that there will be "no significant impacts" with regard to:

ecology

geology

aboriginal heritage

water courses

water quality

air quality

noise

traffic

visual impacts

Greenhouse Gas Emissions

adjoining conservation areas (i.e. Gardens of Stone NP)

Most of these could be disputed to some extent.

For example:

Ecology – the Environmental Impact Statement **Subsidence Constraints Risk Assessment** states: ecological impacts - reduced groundwater availability in upper near surface aquifers and perched aquifers can affect groundwater dependent ecosystems and critical fauna habitat. Tilts and strains can increase erosion / sedimentation / ponding potential which may affect an ecosystem. Surface cracking can affect the viability of surface water flows which sustain ecological communities;

Shrub swamps are predicted to experience subsidence up to 1.65m, tilts up to 20mm/m, upsidence up to 750mm and closure up to 1m, as well as hogging and sagging curvatures

Fractures in bedrock are predicted beneath the swamps and drainage lines.

Steep slopes are predicted to experience tension cracking at the top and sides, and compression ridges at the bottom.

Geology – some cliffs, pagodas and other rock formations are likely to experience fracturing and spalling.

There are some major linear geological features right in the middle of the proposed extension area, and these lines of weakness have been previously proven to make the likelihood of bedrock failure much greater, with subsequent detrimental flow on effects to the ecosystem and geodiversity.

These linear features correspond directly on the ground with the endangered Newnes Plateau Shrub Swamps.

Water quality – the deep ground water to be discharged to the power stations or alternatively into the

Cox's River, is of high salinity and contains metals, and other government authorities have determined that it be classified and used as industrial water only.

Visual impacts – Centennial says there will be little visual impact at their test sites, BUT if you travel to say Birds Rock lookout (one of their test sites) you see numerous examples of their mining infrastructure along the way.

Greenhouse Gas Emissions – Centennial claims a tiny contribution to the amount of State and Federal GHG emissions, but conveniently omit the Scope 3 emissions about which they say:

The greatest emission sources associated with the Project are those related to the downstream combustion of the coal (Scope 3), the management of which is not in Centennial Springvale's control

Australia is not isolated you know, we are all on the same planet, with the one atmosphere.

Counting the Scope 1-3, Springvale mine will be producing 1,176,742 tCO₂-e/annum, which over the proposed 13 year life of the mine is a huge amount of greenhouse gases. Add on the figures for the Angus Place and Clarence mines, and you get another example of a big cumulative effect.

You can't just sweep it under the carpet and pretend it's not there.

Noise – the mines say that the noise of the dewatering pumps can only be heard up to 100m away, but I have experienced differently with existing pumping sites, as the noise can travel much further across valleys, up to about a kilometre. And the pumps run nonstop most of the time.

Traffic – I see increased traffic on the (sometimes) poor quality state forest roads, every time that I go there now. The mines want traffic going there day and night 24/7.

Previous Mining Damage

Some people claim that Lithgow has a proud history of coal mining which they want to see continue, but I have seen a lot of the Lithgow district close up, and there is an abysmal amount of environmental damage from previous mining. I'd call it a legacy of long term environmental damage. Examples include a shocking amount of cliff/overhang damage caused in recent years by the Baal Bone Colliery, extensive damage in Ben Bullen State Forest by Invincible Colliery and other older mines such a Wallerawang Colliery.

In fact, the whole of the City of Lithgow is in a Mine Subsidence Area cracked by the historic mining. Go up to the Hassans Walls Lookout area and you can see large cracks in the rock walls.

The three mines on the Newnes Plateau have caused environmental damage with their past mining, (including to endangered shrub swamps) such as in Lambs Creek, Kangaroo Creek, East Wolgan Swamp, the Wolgan River, Wollangambe River, and upper Bungleboori Creek.

There are cracked rock pagodas, e.g. at the Temples of Doom in the northern end of the existing Angus Place longwall mining area.

The "Enforceable Undertakings" (in Oct. 2011) by the Angus Place and Springvale mines "without conceding that it has breached the EPBC Act, or any other act" was a virtual admission that they had damaged the East Wolgan Shrub Swamp. They are too scared to legally admit it.

Until just a few years ago, the mines were discharging massive amounts of polluted mine water directly into gullies, most of which contain shrub swamps. The result was dieback of the vegetation along the path of the water flow, due to submersion, scouring and pollution by water containing salts and metals, as well as having a high Ph. value.

Now it has become unacceptable, but back then it was considered industry “best practice”. Perhaps what is being done and proposed now will soon be considered unacceptable, especially under the endangered or sensitive areas.

They were also longwall mining in areas that contain faults and lineaments, which resulted in cracking due to plains of weakness combined with features in the topography such as incised valleys.

Following a review of subsidence monitoring results of extracted longwalls in 2011, it was determined that subsidence impacts as a result of underground longwall mining had only been experienced where the ratio of longwall mining void width to depth of cover over mine workings was identified to be in the critical design range.

The definition of “critical” ratio is that at which maximum surface subsidence occurs. Why did it take the mines until 2011 to work out that maximum subsidence might actually do some damage on the surface.

Cumulative Effects

The area of mining and associated surface infrastructure of the three mines on the Newnes Plateau has been expanding over the years, until they will eventually adjoin and form one huge area of disturbance with associated environmental degradation.

Springvale is expanding east and south, Angus Place is expanding east and north, while Clarence is expanding north, west and east. All at the same time.

When you consider the cumulative impact on ecology, water, air, noise, etc., the effect will be very widespread, and have a huge impact on the integrity of the Newnes Plateau.

The effective doubling of discharge from the water transfer scheme (the SDWTS) and flow of saline ground water to the Cox’s River catchment can only have a detrimental effect on the aquatic biota.

Conclusion

▪ Centennial Coal overall concludes that:

“The technical studies have concluded that no significant alteration to the support physical or hydrological environments is likely to occur as a result of the Project” *and*

“The Project can be appropriately managed and result in residual consequences that do not have significant impacts on the receiving environment”.

Once again the words “no significant” pop up everywhere where potential impacts are mentioned. For the unique and endangered Newnes Plateau environment the term “no impact” should be only acceptable option. Risk Categories of Low and Moderate (which are lower than Significant) should not be acceptable.

▪ I don’t agree with Centennial Coal that coal mining is “critical” to the socio-economic wellbeing of the Lithgow LGA.

The mining industry only employs 11.6% of the population, and it would be better to nurture growth

in industries such as tourism, and encourage visitors to see unique natural places like the Newnes Plateau. This could be of big economic benefit to the region.

- Longwall mining causes subsidence, which is predicted to occur extensively (up to 1.65m) above the longwall mining areas, which causes fracturing in the bedrock and can affect the groundwater flow and underground aquifers, which in turn affects the endangered shrub swamps and hanging swamps. Even the mine admits it *is going to happen* above all longwall mining areas.
- Centennial says that due to a weak roof and a high stress environment longwall mining is the only option. How come Clarence Colliery can successfully use bord & pillar mining methods (which causes much less surface damage) but the Springvale mine can't?
- Why aren't all the longwall panels at a "sub-critical" (<0.9) width ratio? After all it is at the "critical" ratio that maximum surface subsidence occurs.
- The southern part of longwall panel LW501 lies under a rocky spur, and with a depth of cover of only 180m (the smallest of the whole proposal area), it is bound to be damaged by fracturing. The rocky ground should be avoided.
- The Proposal mine design does not avoid some major endangered shrub swamps in upper Carne Creek, and these swamps are also located on major linear geological features, which in the past have been proven to make bedrock fracturing much more probable, thus putting the swamps at risk. The biggest and best shrub swamp in Marrangaroo Creek is almost all in the proposed longwall area.
- I do not want to see any more mining under endangered shrub swamps or other sensitive surface features. Damage has occurred to previously undermined swamps and to rock formations, and is very likely to happen again.
- I do not want to see the proliferation of *even more* mining surface infrastructure.
- I would not like to see Springvale longwall coal mining under the Newnes Plateau for another 13 years from the date of consent.
- The cumulative effect of the expansion of the three coal mines (Angus Place, Springvale and Clarence) on the Newnes Plateau, eventually adjoining, will result in one huge area of disturbance and degradation from surface infrastructure and subsidence damage from longwall mining.
- Finding "like for like" offsets is not possible as the Newnes Plateau is a unique place. The Newnes Plateau should be added to the National Parks estate to protect it from further damage.
- I think that the Proposal must be assessed by the PAC, to get a more independent verdict.
- The Newnes Plateau and its EEC's should be protected and added to the National Parks estate. That is the better long term sustainable option.
- Based on the above, I do not support the Springvale Mine Extension Proposal.