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Subject: "Submission against the Narrabri Underground Mine Stage 3 Extension Project"
Date: Friday, 25 February 2022 8:36:33 AM
Attachments: [BB-2022-2050-COMMENT ON PROPOSED EXTENTION of the WHITE HAVEN COAL MINE in Western NSW.docx](#)

I do not Live in the Narrabi Area so my comments are more general, but the extent of the decline in the Native fauna population of koala is reported from circa 10,000 to 50 which may be an "unsustainable population". The Wealth Generated from the Mining SHOULD BE ABLE TO ASSIST in the "Ecological management" of a population of Native Fauna that the NSW GOVT cla[ms it owns (not White Haven Coal).

But the IMPACT of METHANE on the health of native faina or HUMANS may require "Masks" as a "Prevention Action or stopping the extension of the COAL MINE ?

COMMENT ON PROPOSED EXTENTION of the WHITE HAVEN COAL MINE in Western NSW

Just south of the town of Narrabri, next to the Pilliga forest, is the Narrabri underground coal mine.

The most unusual aspect of this mine is how gassy it is. The amount of methane released by mining the coal is massive, and because methane is a very powerful greenhouse gas, absolutely dreadful for the climate.

Whitehaven coal is currently before the Independent Planning Commission (IPC) seeking to expand the mine to dig up another 100 million tonnes of coal over an extra 13 years through to 2044.

The project will release 34 million tonnes of greenhouse gases directly from the mine site and 456 million tonnes overseas when the coal is burnt. It doesn't matter where these emissions occur, they all fuel climate change.

Even after the mine closes, methane leaking from the mine will keep polluting the atmosphere for decades. Whitehaven Coal estimates 1.7 million tonnes will leak after the mine closes in 2064. This is obviously incompatible with NSW achieving net-zero emissions by 2050.

RESPONSE >

The methane gas could have an effect on a “Successful” and resilient recovery project of Wildlife including Koala and other species in the Pilliga Forest nearby.

The need for COAL may decline with the use of “Next Generation” Green Steel production. There is the UNSW design for “GREEN STEEL” and a separate Renewable Powered “old school method” funded in California by Bill Gates.

The Price of Renewable Power is now cheaper than Coal, so the demand may need to come from hard to Decarbonise “STEEL”. But the development into GREEN STEEL in 2022 is happening. But its in a trial stage at present, with attempts already by UNSW experts and Scandinavian areas, and FMG in Western Australia ‘Talking about GREEN STEEL and GREEN HYDROGEN production.

❖ ***So what is the alternative “uses for the site” ?***

- ❖ The proposed extension of a COAL MINE near the Pilliga Forest area has “regional habitat for a Native Fauna population to consider, including the Water Supply for the Native Fauna in Times of Drought.
- ❖ The Koala Population in the early 1990’s was estimated as 5,000 to 10,000 but more recent estimates put the population at under 100 (or about 50 koalas).

- ❖ **The “Resilient Solution” may include providing adequate water for the trees, and Native Fauna, using pumped water, or artesian water supply,.**
- ❖ **The “need for Coal” for Electricity Generation in Australia is Challenged as it is now claimed that it is cheaper using Renewable Power Solutions (PV SOLAR). Why has Mike Cannon Brookes proposed buying AGL to then close its coal fired power stations “earlier than planned by AGL”. There must be a Cheaper Renewable alternative?**

15 December, 2014 2:54PM AEDT

Could there be as few as 50 Koalas left in the Pilliga?

By [Kelly Fuller](#)

"So our best ideas about why they are so endangered at the moment is because there has been a massive population crash, sometime during the 2000's, caused by drought." David Paull

A new survey warns there could be few as 50 Koalas left in the Pilliga.

As part of a wider study of the Koalas in the Namoi Catchment, the Pilliga population was surveyed in 1993 and re-surveyed in November 2013 to determine any changes.

The latest review has just been released and suggests a dramatic population crash.

One of the study authors Biodiversity Conservation Officer, with the NSW Office of Environment and Heritage, David Paull says Koalas are in trouble.

"Out of the surveys that I undertook, I only saw two animals, and detected their scats at five locations. Out of the 40 that I did the surveys for, and from the combined other replica surveys suggest at this present time there are less than 50 left in the Pilliga. I would say that that population is highly endangered."

From the report:

"Koalas were recorded at 5 out of 40 sites in 2013. This compares to 20 out of the same 40 sites surveyed in 1993. This is a 75-percent reduction in the distribution of Koalas throughout the forest in the last 20 years."

"My estimate is that there are probably no more than a hundred or so animals left in the Pilliga, from a population of about 10,000 in 1993 making this population suitable for listing as an 'endangered population' under the Threatened Species Conservation Act 1995"

David Paull says the dramatic decline appears to be caused by the drought and extended dry conditions.

"It's not disease, dogs or hit by cars or urban development, but long extended periods of drought or high numbers of days with extremely high temperatures are really bad for Koalas and knock them around considerably, and so our best ideas about why they are so endangered at the moment is because there has been a massive population crash, sometime during the 2000's, caused by drought. Some people might even infer from that we are seeing early signs of long term climate change, but it is difficult to prove, we just have to say this is the impact of weather, and drought is the reason that we are going to this massive decline in Koala."

He says water is a critical factor.

"So it seems like the Koala is only surviving now in Pilliga where there is actual water, that they can access and drink every day, if it needs to."

He maintains the population needs to be monitored very carefully.

"We are concerned that it might be heading on its way to extinction, which is very sad, when you consider the Pilliga was once a strong hold for this species, if this is what is happening, then this really does suggest long term changes, whether they are actually ally dying or physically moving, we don't know yet."

He recommends the Federal Government consider the situation as it reviews the Santos plans for a coal seam gas operation in the Pilliga.

"The Commonwealth should consider the evidence that Koalas were detected on the eastern side of the Pilliga recently, even though there is not many left, we do have to think about protecting the koala habitat through the forest and there is a vein of habitat running in north south direction along that Bohena Creek system, which could be a vital route for dispersal of the Koala. Particularly in a situation where the koala is experiencing population stress, water stress, so it is really important that these corridors remain good for the koala to be able to move."

On the 1st of December, the Federal Department of the Environment ruled that Santos's proposed Narrabri Gas Project is a controlled action, and it will be assessed for its impacts on listed threatened species (including the Koala), water resources and Commonwealth land.

IN A REPORT for WWF in 2020 –

A new report commissioned by the World Wide Fund for Nature-Australia found the 2019-20 bushfires resulted in the loss of about 71% of koala populations in fire affected areas at six locations on the north coast of New South Wales.

Four major blazes – the Wardell fire, the Busby's Flat fire, the Crestwood-Lake Innes fire, and the Hillville Road fire – swept through the study areas.

The koala occupancy declines at the six fire grounds varied from 34% in an area of the Lake Innes Nature Reserve near Port Macquarie, to a likely 100% loss in the Kiwarrak area south of Taree, where researchers could find no evidence that any koalas survived.

On the up-side, the report, released on the eve of National Threatened Species Day, found koalas were five-times more likely to survive in areas where forest canopies were unburnt or partially burnt compared to fully burnt.

"This is the first scientific study to enter charred forest and quantify the impact of the bushfire crisis on koalas. WWF commissioned this research to provide credible information on our national icon, loved at home and abroad. A 71% decline is massive, nearly three quarters of koalas in these locations were lost.

"That's why it's so important that national environment laws are strengthened to protect koalas and all threatened species," said WWF-Australia CEO Dermot O'Gorman.

Ecological consultancy Biolink surveyed 123 sites at the six fire grounds searching for scats below large koala food trees. Finding unburnt scats confirmed that at least some koalas had lived through the fires.

Biolink chose locations with pre-fire koala occupancy data to enable a comparison to post-fire occupancy.

Dr Stephen Phillips, specialist koala ecologist at Biolink, said the capacity of koala populations to recover will depend on the severity of the fire in their area, the original population size, management actions taken to assist populations to rebuild, and whether there is sufficient recovery time before the next fire event.

“We’ve got to identify where the remaining koala populations are located in each fire affected area, the size of each population, and focus our conservation efforts on those populations which remain viable. We need to wrap them in cotton wool,” Dr Phillips said.

The report outlines actions to assist recovery. Field work by Biolink confirmed the accuracy of the Google Earth Engine Burnt Area Map (GEEBAM) which detects how badly the tree canopy has been burnt.

Where GEEBAM indicates forest canopy is unburnt or only partially affected, logging or other disturbances should cease until detailed assessments are made of the presence of koalas and the extent of their distribution.

Outside of these areas, preferred koala food trees with a diameter at breast height greater than 300mm should be retained to help koalas move across a landscape where fire damage has caused populations to become increasingly isolated.

“Fire breaks can be created around resident koala populations using low-intensity, hazard reduction burns but they must be carefully controlled. Hand-raking to remove fuel from around the bases of the larger koala food trees can reduce canopy scorch and help protect koalas,” Dr Phillips said.

Mr O’Gorman said people in Australia and around the world would be deeply

concerned by the report's findings.

"The Australian bushfires showed the world a future that nobody wants. Many parts of the globe will be experiencing more extreme bushfires due to climate change. Koala numbers may not recover before another blaze sweeps through the east coast causing localised extinctions," said Mr O'Gorman.

"If populations of pandas or tigers faced a similar fate there would be an international outcry. WWF-Australia is calling for us as a nation to have koala bounce back plan to save east coast populations," he said.

The report noted that fire was a contributing factor in the decline of koalas in the Tweed and Brunswick Coast, the eastern parts of Port Stephens LGA, and the Pilliga. The Pilliga koalas were once considered the single largest population remaining in NSW. In little more than two decades they declined so rapidly they are now thought to be functionally extinct.

"The plight of the Pilliga koalas is a sobering reality check of the challenges ahead for koala recovery and conservation, and also implies that the threat of localised extinctions is more immediate than we might otherwise have considered," Dr Phillips said.

COMMENT::

So a "RESILIENT SOLUTION" to recover the population (from 50 to 5,000 or 10,000 is a "CHALLENGE" that may require "ONSET" solutions rather than relying on "Bio-Diversity Off-sets" as it is part of an Upper House Parliamentary Inquiry (already finding "Flaws" in the process).

THE COAL MINING – Adaption –

The COAL MINE could consider future options. - ??

- 1. Preserving Water for regional Wildlife Habitat and Tree Habitat**

2. ***Preserving the Water Needs of Regional Farmers who use Artesian Water Supplies.***
3. ***Using the Coal Mine Site area as a SITE for Renewable Power.***
4. ***The Potential for Carbon Capture Storage may have “problems”***
5. ***The example below is outside the Great Artesian Basin ? in Sea north of Darwin, Australia.***
6. ***THIS IS AN ISSUE that has not been solved since 2012.***

7. **Coal & gas endanger shrinking Koala population**

8. April 26, 2012

9. Issue – Source :: Green Left Media.



10.

11. *Land cleared for coal seam gas mining, Pilliga Forest. Photo: Kate Ausburn.*

12. *[The Wilderness Society](#) released the statement below on April 27.*

13. *Koalas must be included on the national threatened species list as part of Environment Minister Tony Burke’s 30 April announcement, especially in NSW’s Gunnedah region and the Pilliga Forest where they face the additional threat of expanding coal mining and coal seam gas operations, according to the Wilderness Society.*

14. *“Koalas need to be protected across Australia as they are rapidly declining in numbers, especially in the Pilliga Forest, where three-quarters of the population has been wiped since 2000,” said Naomi Hogan of the Wilderness Society.*

15. *“Minister Burke has ruled out protection for all koalas and we are concerned these northwest NSW koala populations may be left off the threatened species list, even while their populations are falling dangerously low.*
16. *“Gunnedah is known as the ‘Koala Capital of the World’, yet recent scientific studies show koala numbers across the region and in the nearby Pilliga Forest are seriously declining.”*
17. *Zoologist David Paull has recorded a 75% decline in the relative abundance of koalas in the Pilliga from 1993 to 2011. He said the population was relatively stable until 2000 and estimates there are only 500 to 2000 koalas left in the area.*
18. *“In 1993 I would take tours through the Pilliga and we would always see koalas, the river banks would be teeming with female koalas with babies on their backs,” said Paull, an associate of the University of New England. “Now, you are lucky to see them.”*
19. *Hogan said: “These northwest NSW koala hotspots are the target of very rapid and aggressive coal seam gas and coalmining expansion. The Pilliga Forest is covered by a proposal for the largest coal seam gas field in NSW, while the Liverpool Plains are threatened by coal seam gas pilot wells at Spring Ridge and Marys Mount. Koalas in Leard State Forest are facing three enormous open-cut coalmines.*
20. *“The spread of mines and gas wells, tree kills from coal seam gas spills and increased vehicles through the Pilliga Forest will likely put extra strain on these already declining koala populations.*
21. *“The 2011 Senate Inquiry into koalas recognised the major threats to Koalas are habitat degradation, vehicle strikes and fire — all of which are likely to increase in the Pilliga Forest, Liverpool Plains and Gunnedah areas if coal seam gas mining proceeds.*
22. *“Koalas are an Australian icon that deserves federal protection.”*

❖ **The Potential for Carbon Capture Storage may have “problems” in Western NSW ?**

one of the world's largest carbon capture and storage (CCS) facilities near Darwin, Australia, as it strives to hit its Net Zero 2050 pledge and decarbonise its business.

Earlier this month, Japan's largest exploration and production company announced its ambition to reach net-zero emissions by 2050. As part of this goal, Inpex will introduce CCS at its Ichthys liquefied natural gas (LNG) export project in northern Australia by the late 2020s.

The company said it will start injecting 2 million tons or more of carbon dioxide (CO₂) per year from its Ichthys development as a first step. The proposed CCS hub near Darwin is estimated to cost 100 billion yen (\$868 million) and could be expanded to capture 7 million tons of CO₂ per year. This would put it on par with the world's largest CCS hub operated by ExxonMobil in the US.

Inpex is in discussions with multiple non-Japanese companies that have expertise in CCS technology with the aim of collaborating on the project, reported Nikkei Asia. In its latest strategy plan, Inpex said it will find an appropriate injection site, based on ongoing detailed evaluation, for the hub.

Growth Areas

Yesterday, Inpex said it would invest 4.4 trillion yen (\$38 billion) in growth areas over the next nine years, with 1 trillion to be invested in decarbonisation, including ammonia and hydrogen.

By 2030, Inpex plans to produce 100,000 tons or more of hydrogen and ammonia per year by commercialising at least three of the projects that it is pursuing in Japan, Abu Dhabi, Australia, and Indonesia.

Inpex said it will use natural gas from its operations to produce carbon-free hydrogen through gas reforming combined with carbon capture utilisation and storage (CCUS). It will also invest in research and development activities aimed at establishing a hydrogen value chain.

The company will also accelerate its renewable energy developments both in Japan and around the world with a focus on geothermal power generation and offshore wind. It said it will apply its expertise in geology and drilling to its geothermal business, while its offshore wind developments will benefit from its experience in the construction and operation of offshore floating oil and gas facilities.

❖ **THE PILLIGIA AREA has -**

The CSG industry has been in retreat in NSW, with the state government buying back most of the exploration licences: they now cover less than 7% of the state.

In February last year, AGL, the only operator of a CSG field in NSW — based in Camden in south-west Sydney — announced plans to exit there by 2023 and immediately from its exploration project in Gloucester on the state's mid-north coast.

In December Santos told the ASX it had relegated the project to a “non-core asset”, stoking speculation it would be sold.

It left Narrabri out of its five “core” projects, placing it instead among secondary assets, which would have to operate under a “sweat or exit” strategy to “maximise value”.

The EIS could make the project more attractive to prospective buyers who would be aware of the environmental damage the project has already caused as well as the huge protests against CSG mining across NSW.

Santos has pointed to the 2014 NSW Chief Scientist Mary O’Kane’s review of the CSG industry which ambiguously concluded that with appropriate safeguards and controls CSG could be safely extracted.

Santos said the project could proceed “safely with minimal and manageable risk to the environment”. It said water available to farmers and the community would be unaffected and the project would coexist with agriculture.

It also said significant impacts on threatened and endangered flora and fauna would be avoided through a number of mitigation measures and 90 identified Aboriginal cultural heritage sites would be protected after consultation with the Gomeroi people.

However, the company has a history of environmental failure in the Pilliga, with at least 20 toxic waste water spills, including the contamination of an aquifer with uranium and other heavy metals from 20 exploratory wells.

The Pilliga is a major recharge zone for the Great Artesian Basin, an essential water source for inland Australia. It is also a part of the Murray Darling basin, Australia’s biggest and most important food bowl. It is the last great inland forest, home to many endangered and threatened species including the koala, Pilliga mouse, black-striped wallaby and spotted-tail quoll.

Greens spokesperson for mining Jeremy Buckingham said on February 1 that the new premier Gladys Berejiklian should clarify if she supports a development “with no social licence”.

“The community has clearly rejected this unnecessary and unwanted industry because it will lead to the industrialisation of the landscape and the pollution of groundwater resources,” Buckingham said.

February 11, 2022

Koala endangered listing must compel NSW Government to act

Today's announcement that koalas will be finally listed as Endangered under the Environment Protection and Biodiversity Conservation Act is a huge wake up call for protecting koala habitat in New South Wales.

*"The endangered listing of koalas is a devastating reflection of the reality for koalas in Australia. Koala numbers have been in freefall thanks to habitat destruction. The NSW Government should follow suit and list koalas as endangered under the Biodiversity Conservation Act" **Nature Conservation Council Chief Executive Chris Gambian said.***

"The Commonwealth finally acknowledging that koalas are endangered is good news, and should now prompt NSW to follow suit so that they can be properly managed, starting with protecting habitat"

"If you want to save koalas you have to protect their trees. It is not complex. But koala habitat continues to be destroyed because of weak government policy at both state and federal levels."

So is there a TRAGEDY of the COMMONS happening within the Pilligia Forest, with the Private Corporations being concerned with Corporate Profit from Coal Mining, or Coal Seam Gas. The Koala Population in Pilligia Forest has decreased from circa 10,000 to 5,000 to less than 100.

The effects of a NET ZERO EMISSIONS target by 2050 puts a challenge to meet.

So with the WHITE HAVEN COAL Mine extended life, it's the factors of "Off-sets" or "Carbon Capture Storage" capability verse the "adaption" to Low Emission technology and long-term future operation = How to best "Adapt" .

Story below by " The Conversation".

This shows when it comes to net zero many of Australia's biggest companies no longer ask "why", but instead focus on "how".

In part, that's because businesses that don't change know they increasingly risk isolation.

For example, the International Energy Agency said in its annual report that demand for Australian thermal coal has peaked, and renewables will meet 80% of the world's energy demands in the coming years.

Japan, South Korea and the European Union have committed to reaching net zero by 2050, and US President-elect [Joe Biden](#) says his administration will make the same pledge. China also [recently committed](#) to reaching net zero by 2060.

[Read more: Biden says the US will rejoin the Paris climate agreement in 77 days. Then Australia will really feel the heat](#)

That means the vast majority of Australia's exports are going to trading partners who have committed to transform their economies.

This will result in a shift in demand from high-carbon products and services, such as thermal coal, towards zero or near zero carbon alternatives, such as renewable hydrogen.

An opportunity, not a threat

Such a demand also presents extraordinary opportunities. The international transition to cleaner economies is a chance for Australia to become [a renewable energy superpower](#).

After all, [Australia possesses](#) the world's third-largest reserves of lithium and currently produces nine of the ten elements required for lithium-ion batteries.

Likewise, by 2030, Australia could be using renewable electricity and water to produce [500,000 tonnes](#) of green hydrogen annually, one of the most important commodities of the transition into a clean economy.