

Narrabri Underground Mine Stage 3 Extension Project (SSD 10269)
Bellingen Nature Company
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Introduction

I have been engaged by Environmental Defenders Office (EDO) on behalf of Lock the Gate to prepare this independent expert advice. I acknowledge that I have read the Expert Witness Code of Conduct in Schedule 7 of the *Uniform Civil Procedure Rules 2005* (NSW) and that I agree to be bound by it.

Global significance of The Pilliga

The Pilliga is the largest temperate woodland in Eastern Australia; this conservation asset is globally significant because it supports the largest intact and ecologically functional landscape west of the Great Dividing Range in NSW and is the second largest temperate woodland on Earth (after the Great Western Woodlands in Western Australia). Providing critical habitat and refuge for an abundance of threatened species that have been extirpated across much or all of their range in NSW (e.g. the precipitously declining Barking Owl and the Endangered Koala), the globally significant biodiversity of The Pilliga is now facing immense pressure from the cumulative impacts of:

- major fossil fuel extraction projects (e.g. Santos Narrabri Gas Project);
- linear infrastructure development (e.g. Melbourne to Brisbane inland railway and various gas pipelines);
- industrial logging by the NSW Government;
- exponentially increasing fire intensity and extent and the myriad consequences of global heating including multi-year extreme droughts and extreme and prolonged heatwaves with temperatures approaching 50 degrees Celsius.

In order to continue to support its globally significant conservation values and to avoid cascading extinctions, all extant vegetation of The Pilliga needs protection and there urgently needs to be expansion of vegetation cover through allowing natural regeneration and facilitating strategic revegetation in order to mitigate cascading extinctions that are already occurring in The Pilliga (e.g. a documented 90% decline in Koalas in recent decades).

Existing global heating impacts across The Pilliga

The Pilliga has already experienced substantial harm and significant degradation as a consequence of a rise in temperature of just over 1 degree Celsius in the last century. This harm includes significant dieback and loss of forest cover, major increases in fire extent and intensity and the loss of approximately 90% of The Pilliga Koala population in recent decades. This harm has been most acutely driven by increases in drought duration and intensity (particularly with the close sequence of the "Millenium drought" and the 2017-2020 record drought), significant increases in both heatwave length and maximum temperatures experienced (with weeks of temperatures exceeding 40 degrees Celsius during 2018 and 2019 and temperatures peaking close to 50 degrees Celsius) and the resulting "super-charging" of

wildfire generating exponential increases in the extent, intensity and rate of spread of wildfire.

With temperatures rapidly increasing globally these trends are highly likely to be exacerbated and will likely result in substantial additional harm to the ecological structure and function of The Pilliga.

Irreversible impacts of the proposal

The proposed Narrabri Underground Mine Stage 3 Extension Project (Project) will generate major irreversible impacts on the biodiversity of NSW because it will:

- generate the substantial clearance and fragmentation of nationally significant native vegetation communities (including a range of Threatened Ecological Communities);
- cause the ongoing decline and degradation of remnant native vegetation communities and biodiversity through dewatering substantial areas surrounding the proposed mine;
- alter hydrological and fire regimes, thereby causing long-term shifts in vegetation community and irreversible ecosystem degradation;
- cause major subsidence in long-wall mined areas and irreversibly degrade remnant ecosystems;
- clear and fragment connections between the globally significant Pilliga and the nationally significant Mt Kaputar National Park. These major forested blocks are the largest and most viable blocks of native vegetation west of the Great Dividing Range in NSW, and the proposed Project is located within the landscape that provides the closest and best connectivity between these conservation assets;
- create major clearance and other industrial disturbances that will provide conditions conducive to invasion by weeds and the occupation by vertebrate pests such as the Red Fox and Feral Cats (both major causal agents of extinction and biodiversity loss);
- cause irreversible damage and degradation to the recharge of both surface and deep aquifers including those feeding the Namoi River and the Great Artesian Basin;
- exacerbate global heating and increase extreme droughts and heatwaves.

Proposal must be refused

Despite Whitehaven alleging that their Project is "*considered to be in the public interest of the State of NSW*" nothing could be further from the truth. The proposed Project will severely exacerbate the NSW extinction crisis, cause irreparable degradation to our life support systems and will substantially increase global heating, leading to increased droughts and heatwaves, cascading extinctions and an unliveable planet. On this basis alone this proposal must be refused.

Author

Mark Graham is the Principal Ecologist and Managing Director of The Bellingen Nature Company. He has worked across NSW for over 25 years with all tiers of Government, in private industry and the Non-government sector within biodiversity, water and fire management roles. He has worked extensively within The Pilliga and the broader Namoi, Border Rivers - Gwydir and Darling River catchments in biodiversity assessment and environmental, fire and water resource management with Government, Industries and Communities.