Objection to the South32 proposed extension of the Dendrobium underground coal mine - Area 5 within the Metropolitan Water Catchment SSI-33143123

I strongly object to the proposed extension of the Dendrobium underground coal mine Area 5 within the Metropolitan Water Catchment as the proposal has serious and irreversible impacts on the environment, its flora and fauna including many threatened species, and causes irreparable impact to critical water catchments and sites of high cultural significance. I ask that all underground coal mining and surface mining of any type be ceased within the Metropolitan Water Catchments in order to protect the current and future drinking water supply of Greater Sydney and Wollongong and protect its unique biodiversity.

I am opposed to this development for the following reasons:

1. The NSW Independent Planning Commission (IPC) has already rejected the proposed extension of the Dendrobium mine into Areas 5 & 6 on 5 February 2021. The new proposal does not address the reasons why the original proposal was rejected. Further, the new modifications to the longwall layout do not 'avoid' or 'minimise' cumulative impacts of the mining on highly sensitive ecosystems such as the upland swamps which are listed Endangered Ecological Communities which support many threatened species of flora and fauna as well as providing fire, drought and climate refuge for many threatened species.
2. Upland swamps are critical in maintaining continuous water flows to downstream creeks and rivers and their dependent biota and are critical to maintaining flows in the catchment. Underground mining will destroy these swamps by landscape subsidence and cracking of bedrock. Scientific evidence shows that longwall mining causes catastrophic changes to these upland swamps and it is a listed threatening process under the Biodiversity Conservation Act.
3. Coastal Upland Swamps are unique ecosystems which cannot be offset. Upland swamps provide habitat for many geographically restricted and endangered species of flora and fauna which comprise upland swamp communities meaning that offsetting cannot be applied.
4. Upland swamps form critical climate refuges, becoming even more important under a warming and drying climate.
5. The continuous progression of mining from East to West in the Dendrobium lease, coupled with the proposed Area 5 mining, will effectively split the Woronora plateau frog populations over time by alteration of the hydrology in a strip from east to west. This cumulative impact will have catastrophic implications for the persistence of the amphibian species in the future; since genetic mixing will be made extremely difficult, and habitat will be reduced.
6. The loss of connectivity across the Woronora Plateau Coastal Upland Swamps is a highly significant issue for many threatened species. The Woronora plateau is a stronghold for three threatened frogs and the threatened Koala. The threatened Ground Parrot and Long-nosed Potoroo are also recorded in these catchments and rely on swamp habitats for their survival. Recent genetic studies have shown that the Littlejohn's Tree Frog is now split into two species in the Illawarra; with *Litoria littlejohni* on the Woronora Plateau split off from the populations in Morton National Park and Budderoo National Park which are now identified as *Litoria watsoni*. This information is pertinent; since the risk of extinction of *Litoria littlejohni* is heightened due to the mining impacts on the plateau. Upland swamp habitats provide critical climate refugia.

7. With reduced water availability and altered hydrology across the catchment, all Koala habitat within sufficient proximity to the mining to cause changed hydrology could be indirectly impacted. This will have far reaching consequences since the Woronora Plateau and Picton area is identified in the NSW Koala Strategy as one of the 'Strongholds' for the persistence of that species into the future since it is significant climate refugia and has a good population.
8. Other unique fauna such as the threatened Broad-headed Snake and Rock Warbler (Origma) as well as several other snakes and geckos are dependent on sandstone rock overhangs and rock slabs on exposed rock pavements which could collapse due to landscape subsidence and cracking. These species are unique and restricted to the Sydney Basin sandstones.
9. Other unique fauna such as the Platypus and Eastern Water Rat are dependent on healthy streams and will be lost from the environment as bedrock cracks and streams disappear or re-appear polluted on re-emergence further downstream.
10. The collapse of sandstone overhangs and rock pavements will have serious irreversible impacts on highly significant Aboriginal art work and engravings.

This proposed development will not "avoid or minimise, to the greatest extent practicable", impacts on significant water resources, threatened species and biodiversity, sites of high cultural significance or greenhouse gas emissions. The continuation of underground mining in this area and within the Metropolitan Water Catchments will lead to the loss of valuable drinking water resources, likely contribute to the potential extinction of several threatened species and swamp dependent species and cause significant and irreversible damage to sites of high cultural significance as well as contribute to increased atmospheric CO2, and consequent climate change. A full economic assessment of the cost of the environmental impacts of this project have not been provided.

I ask the government halt all mining developments within the Metropolitan Water Catchments to protect our critical drinking water resources and unique and irreplaceable biodiversity and cultural heritage and protect our future climate.

Yours sincerely,
Debbie Andrew
14/06/2022