

Denbrobium Mine Expansion Project (SSI-33143123)

Response by John Illott, dated 13 June 2022.

Thank you for the opportunity to respond to this proposal.

I am against this mine extension proceeding.

Below are some of my concerns.

1. Firstly, the NSW Governments process of moving this project to a State Significant Infrastructure project goes against the principals established by the having the project reviewed and adjudicated on by NSW Independent Planning Commission. The IPC are the NSW Governments Independent planning experts, having oversight of all aspects of NSW Infrastructure. Removing them from the process makes no sense. Why bother having them look at it in the first place.

Replacing them with the SSI process and the decision of one Minister, the Minister of Planning, who is supposed to take into account his Departments' opinions, makes a mockery of the Governments stated processes and goals, of governing for all people in NSW, not just the industrial sector. This SSI process appears to be political, not based on fact, and not in the long term interests of NSW.

2. The most important and glaringly obvious problem with this project is that South 32 cannot guarantee that the water in Sydney Waters catchments, in both quality and quantity, will not be adversely affected.

The documents in the EIS clearly state that subsidence will occur, the extent of which is not possible to definitively quantify as it is not an exact science. With subsidence comes changes to subterranean and surface water flows. It is accepted by the EIS that these will be detrimental to the catchment, that is less water for the reservoirs. The subsidence they assess is no more than an educated guess, using empirical formulae (Ditton and Tammnetta). Statements by South 32 peers reviewers, are clear on that.

For example, Hebblewhite writes at length on these "concept" approaches:-

Clause 3.1 Page 19-22. This clause discusses the various empirical approaches taken in assessing Dendrobium. Comments included in this Clause refer to the incomplete nature of predicting subsidence, and hence water flow throughout the affected zones. Comments such as:-

- These are concepts only, representing hypotheses regarding the nature of fracturing above an extracted longwall panel. They have been developed as conceptual artefacts, in order to describe the type of deformation and fracturing of the overburden strata, and how it is made up of different zones or different types and intensities of deformation and fracturing.

- These concept models have been developed based only on indirect or very incomplete data sets, be they data from geotechnical monitoring, groundwater monitoring or numerical and physical modelling.

And Jacobs Group states:-

Page 3. The unavoidable drawback in applying this approach is that there are numerous assumptions as to the degree and extent of fracturing and permeability enhancement that occurs during mining.

Page 8. As with all numerical groundwater models, the Dendrobium Model includes uncertainties associated with the parameters, underlying assumptions and simplifications of the underground environment and the changes that will occur as mining progresses.

Consequently, regardless of best practice, compiled data and current knowledge there still remains a significant unknown element to changes to water flow issues. There is no reliable means of knowing how much ground water flowing in the area, both above and underground, will be diverted from the catchment that would have otherwise have gone to the reservoirs.

However, the EIS submitted by South32 in Appendix B estimates water losses as a direct result of mining.

Consequently there will be less water in the reservoirs.

At times there will be droughts of many years in duration. The last drought, before it broke in February 2020, resulted in Sydney Waters' total reservoir capacity reduced to 47%, servicing in 2019 a population of 5,312,000. Water restrictions were at Level 2, with discussion about going higher.

Meanwhile the population of greater Sydney continues to grow. In 2021 the greater Sydney population is listed as 5,361,466 (ABS). Estimates of the population in 2040 range from 6,100,000 (NSW Department of Planning and Environment) and upward.

So, in 2040, because of this mine, there will be cumulatively significantly less water in the reservoirs, servicing significantly more people.

To approve such a scenario defies logic, makes no common sense, and should not be entertained.

Further, more people and less water can be a serious public health issue that no Government can defend.

Previous Governments and many learned people put this area aside as a Special Area of Greater Sydney Water Catchment. What gives this Government the right to overturn the previous generational decisions. Do they know better? They can not know better, because of the unknown subterranean issues.

Further, mines are sinks for ground water to collect in, during the mines operational life and for evermore after mining ceases. Water that passes through the mine will become contaminated with heavy metals, which is of particular concern when this water enters the surface flow channels.

3. The commercial viability of the extended mine is stated as relying on Blue Scope steel manufacturing needing the grade of coal obtained from Dendrobium.

It is noted that there is no statement from Blue Scope confirming their intentions to be still needing this coal for any particular time period.

South 32 assumptions are over stated and over reliant on Blue Scopes future plans. This is another reason for not allowing the mine to proceed.

4. South 32 premise for continuing to mine in accordance with this SSI is based on many documents contained in their submission. As with all mining, coal or otherwise, it is a commercial decision. This documentation, is based on many assumptions, proposals, predicated events and managing risks. All of these are subject to how the project progresses (things in South32s' control) but more importantly how technological, governmental, industrial, environmental, commercial and community issues and landscapes (things out of South 32s' control), both national and international, progress. In light of the speed of how extraordinarily quickly any or all of the above aspects can change and interplay over the next 20 years, it is an unquantifiable and unjustifiable risk to embark on this project.

In the event it is not a commercial success for South 32, for whatever reason, mining will cease. The people of NSW will be left with a depleted catchment area.

The NSW must take a long term view of this mine and not allow it to proceed.

5. The impact on flora and fauna is not insignificant. These must be protected. The NSW Governments track record on maintaining NSW koala habitat, for example, does not bode well for the flora and fauna on this project. Land clearing seems to take priority over just about everything else. In this project land will be cleared for the access roads, transmission lines, storage of waste mined material and mine infrastructure.

The reports included in the EIS are not independent reports, and when compared to other reports for the south coast coalfields area South 32 reports show significantly less incidence of koala and endangered species habitat. This appears to be an anomaly in the reports provided by South 32.

Again, do not allow the project to proceed.

6. Financial offsets. The ability of South 32 to pay the NSW Government, by way of "offsets" for the destruction of state natural assets, such as flora, fauna, water and indigenous cultural heritage is not acceptable. These assets are not replaceable and must not be treated as though it is a temporary loss, whilst the exploitation of the environment for commercial gain by South 32 proceeds. There is no price high enough that would ever compensate for permanent loss of these assets.

7. Green house gas emissions (GHG).

It is NSW Governments position to transition away from coal and associated GHG gas emissions (refer to 2020 Strategic Statement on Coal Exploration and Mining). In order to meet Federal Government GHG emissions reduction by 2030 and 2050 definitive action is required. Dendrobium is in total contradiction to these policies. It is going to increase Scope 1, Scope 2 and Scope 3 emissions. Fugitive GHG emission will occur throughout the mines operational life but also ongoing after the mine is closed, whenever that might be.

Wollongong is not totally reliant on the coal mining industry, it employs only 1.5% of working age people. The health and community support sector, education and construction all employ significantly more.

The closure of Denbrobium at the end of its current lease in 2030 will not be an unemployment problem if the NSW Government starts putting transition and retraining programs in place now.

Renewable energy is the future, coal will be phased out, and now is an excellent time to put NSW and Federal Government words into action. Please do not waste this opportunity.

Please do not approve this expansion of the Dendrobium Mine.