



United Nations  
Educational, Scientific and  
Cultural Organization



Greater Blue Mountains Area  
inscribed on the World  
Heritage List in 2000



PO Box 6 Glenbrook NSW 2773  
Phone: 0419 307 099

[gbm.worldheritage@environment.nsw.gov.au](mailto:gbm.worldheritage@environment.nsw.gov.au)

Our reference : DOC19/186832

Our contact : Jacqueline Reid ph: 0419 307 099

Department of Planning and Environment  
Online submission

### **Submission to the Tahmoor South Project Environmental Impact Statement**

The Advisory Committee for the Greater Blue Mountains Area World Heritage Area (GBMWhA) is jointly appointed by the NSW and Commonwealth environment ministers to provide advice on the protection, conservation, presentation and management of the GBMWhA and issues concerning surrounding land uses that have the potential to impact on the area.

World Heritage listing is the highest level of international recognition that may be afforded to an area, acknowledging its outstanding universal values and global significance. The GBMWhA contains outstanding examples of ongoing ecological and biological processes significant in the evolution of Australia's highly diverse ecosystems and communities of plants and animals, and significant natural habitats for the in-situ conservation of biodiversity, including the eucalypts and eucalypt dominated communities and many rare and threatened plants and animals.

The committee is concerned that developments and activities, both within and on lands adjacent to the GBMWhA, should not impact detrimentally on these World Heritage values and writes to express concern over the Tahmoor South Coal Project Environmental Impact Statement.

In summary, the groundwater and surface water assessments identify:

- Deep groundwater (bedrock) recharge rates from the Lakes were estimated by HydroSimulations (2018a) as a function of lake water level.
- By far the most significant outflow component from the Lakes is to evaporation/ evapotranspiration, comprising approximately two-thirds of outflows. Groundwater recharge by contrast comprises approximately a quarter of outflows. The Project will only affect the groundwater recharge component.
- There is a modelled 330 ML (or 2.6 ML/year average) increase in groundwater recharge as a result of the Project and a 107 ML (or 0.8 ML/year average) decrease in discharge to Blue Gum Creek (from Lake Nerrigorang). This level of change would be very small compared to natural variability in downstream catchment conditions, and in the context of the potential impacts on inflow to downstream Lake Burrangorang (Warragamba Dam), it would be imperceptible.
- Modelling predicts that average Lake water levels would decrease by between 0.01 m and 0.06 m. The predicted average number of weeks per decade that the Lakes were without any discernible ponded water increases by between 3 and 5.2 weeks.

Members of the committee attended the recent Thirlmere Lakes Science Day at Picton and advise that considering the overall theme of the results of the research program to date, that is of incomplete characterization of the hydrology of the lakes, a precautionary approach must view the EIS hydrological modelling as questionable.

The potential magnitude of any groundwater impact prediction on the GBMWhA will be determined by the accuracy/adequacy of the groundwater model itself and/or by the presence of any faults/lineaments which may increase subsidence and groundwater declines/interactions.

The projected average surface water level decreases cannot be considered insignificant in terms of potential impacts on these ecosystems of the GBMWhA and in the context of the lack of knowledge of the ecology/ecohydrology of the Lakes.

The committee recommends that any condition of consent for the mine include the requirement to ensure a negligible impact on the GBMWhA together with adequate and appropriate monitoring to unambiguously identify that this is achieved. The committee further recommends that any approvals include conditions that address the potential for any subsidence impacts on the GBMWhA and an obligation on the proponent to monitor such likely impacts and amend the mine's planned operations so as to avoid such impacts.

Should you require any further information please contact our Executive Officer, Jacqueline Reid via email to [jacqueline.reid@environment.nsw.gov.au](mailto:jacqueline.reid@environment.nsw.gov.au) or by telephone to 0419 307 099.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'B Leaver', enclosed within a circular stamp or seal.

Bruce Leaver, AM

**Chair**

**Greater Blue Mountains World Heritage Area Advisory Committee**

5 March 2019