Wednesday 28th March, 2012

Thirlmere Lakes Inquiry
PO Box 99
PICTON NSW 2571

Dear Sir/Madam,

Submission to the Thirlmere Lakes Inquiry

In October 1989 the Colong Foundation for Wilderness published a detailed proposal entitled the Blue Mountains for World Heritage by Dr Geoff Mosely (135pp). It took eleven years for this proposal to be accepted by the World Heritage Committee at its 2000 meeting held in Cairns. Dr Mosely reports on page 20 of our original report that the Thirlmere Lakes on the Blue Gum Creek near Picton are a feature earth movements that formed the Lapstone Monocline. Our report goes on to state that these movements caused the lakes to lose its headwaters to the Nepean River. The five lakes in the entrenched meanders of a once more powerful stream are thus relics of events which may have occurred over eight million years ago. For these reasons Thirlmere Lakes are an outstanding example of the earth’s evolutionary history and whilst this value was not listed by the World Heritage Committee in 2000, it was flagged as a value that may be nominated by Australia in the future once the question the global significance of its passive margin tectonics is determined.

The debate regarding the geomorphological significance of the World Heritage Area in 1998 centred on whether the uplift reversed the direction of previously inland flowing rivers or if drainage has been stable since the Miocene (Domicell, J., 1998, pg 86). The Thirlmere Lakes are a key example of the contested geomorphological processes in action and may be a key to future listing under that value (World Heritage Criterion 44(a)(i)).

The Australian Heritage Council is now assessing the Greater Blue Mountains World Heritage Area and some adjacent areas for inscription on the National Heritage List. The Council is due to report to the Federal Minister for Sustainability, Environment, Water, Population and Communities in June 2014. The Council’s information will provide a basis for future renomination of the area for additional values to the World Heritage list, including the evolutionary history of the land (World Heritage Criterion 44(a)(i)).

On receipt of a renomination for this property the World Heritage Committee may well enquire of Australia regarding Thirlmere Lakes to ascertain how the integrity issues associated with these Lakes have been properly addressed. It would be prudent for Australia to be open and transparent regarding its considerations of the integrity and management issues of this part of the Greater Blue
Mountains World Heritage Area. Doing so would not only set a good example to other signatory states but demonstrate our commitment to the World Heritage Convention and restore a wonderful natural area in danger of losing its unique natural ecology.

Ecological integrity is one of the key requirements for World Heritage listing of a natural property. The Greater Blue Mountains, with its wilderness areas, has secured its integrity to a large extent. Past efforts towards this property’s conservation, such as the Sydney Water Corporation’s $80 million waste transfer scheme for the towns and villages of the central Blue Mountains, created a positive impression of the World Heritage Committee. It was these efforts, as much as the outstanding universal value of the area’s sclerophyll vegetation that convinced the Committee that the Blue Mountains should be inscribed on the World Heritage list of properties in 2000.

Your Committee should consider the above context when framing its findings and recommendations. Integrity questions will always surround this World Heritage property and need to be effectively addressed, particularly as the property is close to Sydney and will always be confronted by such issues. In fact the foreword to the 1998 Nomination states “Through their scale and symbiosis with the City of Sydney, the Greater Blue Mountains exemplify the links between wild places and human aspirations.” The Inquiry Committee needs to act to ensure this symbiosis continues and that the relationship does not become pathological instead.

As the Inquiry Committee would be aware, Pells Consulting has prepared several detailed expert reports on the water levels of Thirlmere Lakes. This submission now refers to that work and the contingent consequences flowing from it.

The hydrologic modelling by Pells Consulting fits lake levels for a century until 2000 but in the last decade record shows it is 1.5-2 metres lower than predictions. In ‘Thirlmere Lakes Addendum 2 to the Report of November 2011’, Pells Consulting convincingly argues that the lower than expected lake levels are associated with longwall mining.

The Inquiry should confirm that the Tahmoor longwall coal mine was required to depressurise the coal seam, including in the direction of Thirlmere Lakes, to permit safe working conditions in the mine. The Inquiry should then establish the manner in which coal seam gas was extracted from the coal seam under the national park during depressurisation operations.

As the Inquiry Committee would be aware, the National Parks and Wildlife (Mining Prohibition) Act, 1990 requires no mining in National Parks, except where there is an existing licence for such mining or where Parliament approves one. The Inquiry should establish that the Thirlmere Lakes National Park is not subject to any such licence for either coal or coal seam gas extraction. The Inquiry, as a result of these investigations, should confirm that coal seam gas was illegally extracted from under the National Park.

There are broad implications regarding Pells’ research work for upland and coastal swamps, (that are both listed as Ecologically Endangered Communities) and for watercourses in relation to longwall mining and coal seam gas extraction, and particularly for the drinking water supply catchments to the east. The Pells research suggests that the Bald Hill Claystone in the Southern Coalfield is not a significant aquiclude as asserted by the coal industry. Regardless of the presence of the Claystone, the evidence points to longwall mining causing a medium-term lowering effect on regional near-
surface groundwater aquifer levels in an area well beyond the that affected by mine subsidence and causing the desiccation of Thirlmere Lakes.

The Inquiry should consider whether to recommend to National Parks and Wildlife Division of the Office of Environment and Heritage, as the responsible land management authority, that they take the steps necessary to seek the nomination of Thirlmere Lakes as a World Heritage property in Danger.

The World Heritage Committee recommends that “State Parties to the Convention should inform the Committee as soon as possible about threats to their sites.” The Colong Foundation for Wilderness believes that the observed loss of water from the unique Thirlmere Lakes would amply justify the state (i.e. the Australian Government) requesting such a listing from the World Heritage Committee.

The Inquiry Committee should also make a recommendation that emphasises the importance of finding an ecologically appropriate means to restore lake levels, in keeping with the property’s status as part of a World Heritage property. The 1998 World Heritage nomination report notes that the freshwater sponge in the lakes is of particular ecological significance. It is believed to be the only species of freshwater sponge in Australia which does not exhibit gemmulation, which is necessary for adapting to the changing conditions associated with the ageing process of lakes. This characteristic of the sponge is therefore an indicator of the very slow geomorphic and ecological development of the lakes (Domecelji, J., 1998, pg 194). This biological evidence supports the geomorphological evidence quoted by Mosley regarding the great age of these lakes.

The Inquiry Committee should consider whether it would be appropriate to require Xstrata to inject saline mine effluent from the Tahmoor Colliery at say 50 metres below the lakes as replacement groundwater and letting the remaining indigenous fresh water in the near surface aquifers float up upon the injected saline water. An adequate array of monitoring observation piezometers could ensure that the injected saline water remains at depth and also prevents loss of near-surface groundwater to depth. The Colong Foundation would not support the direct discharge of desalinated mine effluent unless and until toxicology work established beyond reasonable doubt its benign effect upon the Lakes’ unique freshwater life, particularly its sponges and jellyfish. The former proposal is preferred as it removes the potential hazards associated with an interbasin transfer of groundwater from the Bargo River catchment to surface waters of the Little River catchment.

The Colong Foundation also points out that neither the NSW Government’s draft Strategic Regional Land Use Policy nor the draft Aquifer Interference Policy provides for buffer zones around protected areas, including World Heritage Areas or water supply catchments.

Your Inquiry Committee should make submissions to the abovementioned draft policies proposing adequate buffers (i.e. greater than a kilometre wide) be established for protected areas and drinking water supply catchments to stop on-going damage arising from coal mining and coal seam gas extraction. Further, the Inquiry Committee should find that coal mining and coal seam gas companies that make any extraction of coal seam gas from under national parks probably would be in breach of the Mining Prohibition Act.

Thank you for an opportunity to make a submission.
Keith Muir O.A.M.
Director

References:

