

Submission
No 235

**INQUIRY INTO PROPOSAL TO RAISE THE
WARRAGAMBA DAM WALL**

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Dear Ms Savage

**Legislative Council Select Committee on the Proposal to Raise the
Warragamba Dam Wall**

I should like to make a submission to the Legislative Council Select Committee on the Proposal to Raise the Warragamba Dam Wall. I am happy for you to publish both the submission and my name as part of your reporting process.

My submission addresses several items that fall within the Committee's Terms of Reference.

1. The effectiveness of the proposed raised dam wall in reducing flooding downstream of the dam

The hydrological basis of the flood protection scheme possesses two significant flaws. The first is that raising the level of Warragamba Dam, even if it were effective, would protect the downstream flood plain only from floods generated in a limited part of the catchment. Although the Warragamba makes up 70% of the catchment upstream of Windsor, the other rivers that contribute flow to the Hawkesbury–Nepean system experience intense rainstorms and typically respond more quickly to rainfall than the Warragamba. As a result, records of major floods experienced at Windsor over the last 60 years reveal that the Warragamba generally contributes less than half the volume of the floods that impact the town (New South Wales Office of Water, 2014, *Hawkesbury–Nepean Valley Flood Management Review Stage 1 Final Report*). Unfortunately, allowing development of the flood plain to proceed on the assumption that businesses and communities would be protected against major events whilst ignoring runoff from the rest of the catchment could lull governments, businesses and the community into believing the accounts of safety. The predictable result is that they will neglect preparations for the major floods that will inevitably occur.

The other notable flaw to the proposal is that raising the wall of Warragamba Dam by 14 metres (the height favoured by the 2017 *Hawkesbury–Nepean Valley Flood Risk Management Strategy*) will not protect the lands below the dam from the largest events that are likely to be experienced, such as those of the Probable Maximum Flood. Modelling as part of the environmental impact assessment prepared for Infrastructure NSW reveals that the flow over the raised dam wall under Probable Maximum Flood conditions would be reduced by less than 10% when compared with

current conditions. Not only is this a trivial effect when set against the economic and environmental costs of the proposal, but the belief that a higher wall will eliminate flood risks could have disastrous consequences for those downstream of the dam.

2. World Heritage

The raising of a dam and the flooding of a notable proportion of the Greater Blue Mountains World Heritage Area has been identified by UNESCO's World Heritage Committee as incompatible with the area's World Heritage status. Were this proposal to go ahead it would be a matter of extreme international embarrassment for the New South Wales Government. UNESCO has already recognised that the proposal would probably have an impact on the Outstanding Universal Values for which the World Heritage Area was dedicated and it is likely that the state's failure to protect World Heritage in the Blue Mountains would be construed as a fundamental attack on the World Heritage Convention.

3. Aboriginal Cultural Heritage

The area proposed for inundation contains at least 300 known Gundungurra Aboriginal cultural sites, including occupation sites and rock art. It is likely that flooding perhaps 5000 hectares of the Greater Blue Mountains World Heritage Area would destroy hundreds of known sites and an even greater number of unrecorded ones. Equally unacceptable is that the draft cultural assessment undertaken by the Snowy Mountains Engineering Corps (SMEC) and its consultants has covered only 26% of the area that will be inundated by the raised dam.

It is also important to draw your attention to the role of SMEC in undertaking the NSW Government's environmental assessment. This is a company with a long history of abusing indigenous rights as part of other dam projects, particularly in southeast Asia. These abuses call into question the means by which the firm has been selected to lead the consultation for the Warragamba Dam project.

In 2013, SMEC faced extensive criticism from the scientific community for their involvement in the Don Sahong Dam project in Laos. SMEC refused calls from the Cambodian, Vietnamese and Thai governments to submit the project and the proposal to intergovernmental assessment. The construction of the Don Sahong Dam is set to threaten the river's fisheries, the main source of livelihood for those living downstream of the dam in the Cambodian-Mekong. This has further driven poverty and environmental degradation in an area where this is already rife. Nor, reportedly, did SMEC consult the parties involved in the Mekong River Commission, as required under the 1995 Mekong Agreement.

In 2015, SMEC faced controversy for undertaking an Environmental Impact Assessment and a Social Impact Assessment for the Mong Ton Dam in Myanmar, a project that will eventually displace up to 300 000 indigenous people, with over 100 villages and towns flooded. This dam also threatens the existence of 104 migratory species of fish that are crucial to the livelihoods of groups living along the Salween River.

Meanwhile, the Traditional Owners in the Warragamba catchment are being treated with similar contempt. Neither SMEC nor Water NSW bothered to respond to an

invitation to attend a public meeting last month to discuss Indigenous concerns. And when SMEC held the first consultation meeting about the Warragamba Dam wall raising project in 2018, the Traditional Owners were given just four days' warning by SMEC of a consultation meeting to be held in northern Sydney.

4. Ecological values of the Greater Blue Mountains National Park

Most of the Greater Blue Mountains National Park is of high wilderness quality and remains in an almost pristine state. The Park is home to more than 40 endangered plant and animal species. These includes primitive species of outstanding significance to the evolution of the Earth's biodiversity, in particular the highly restricted Wollemi and Blue Mountains Pines. These are ancient, relict species with Gondwanan affinities that have been able to survive the massive climatic changes of the past only because of the unique and protected environment of the Blue Mountains.

The Warragamba Special Area is one of outstanding botanical diversity. Over 1400 native species have been recorded there, an extraordinary figure given that it covers just 260 000 hectares. It supports perhaps the highest diversity of Eucalypt species on Earth for an area of this size. In addition, 26 of the species found within the Special Area are listed under the NSW Threatened Species Conservation Act (1995) and a further 35 species are listed as 'Rare or Threatened Australian Plants'. Five 'Endangered Ecological Communities' listed under the NSW Threatened Species Conservation Act (1995) are found within the Special Area and an additional 18 vegetation communities are considered to have regional conservation significance given their distribution and reservation status.

Finally and most tragically, raising the dam would drown habitat critical to the survival of the Regent Honeyeater. Only 200-500 remain of this critically endangered species and their existence is balanced on a knife edge.

Yours sincerely,

Stephen Gale

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