

# Submission on the NSW Government proposal to raise the wall of Warragamba Dam

from Emeritus Professor Ian Dance

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## Introduction

I am very strongly opposed to the raising of the wall at Warragamba Dam. I have been walking in the Blue Mountains since 1960, and my family lives there. I am old enough to remember the original construction of the dam. My father Alfred Dance was an engineer in the NSW Public Works department, initially working on flooding of the Hunter River, then was Principal Engineer for Harbours and Rivers, and later became Chief Engineer of NSW. The dam was constructed at a time when environmental concerns had a very low public profile and climate change and its consequences were unrecognised. There was concern for the future water supply for Sydney. There was very little recognition of indigenous culture and values. **All these factors have now changed radically.**

I am Emeritus Professor of Chemistry at UNSW, with a strong interest in the preservation of our natural environment, locally and globally.

## The EIS process is flawed.

### Federal government criticism

The Federal government has intervened in the NSW government plan to raise the Warragamba Dam wall, questioning the evidence used to claim the proposal would have no significant environmental impacts on the Blue Mountains World Heritage Area.

According to leaked documents, federal officials disagreed with a draft environmental impact statement that claimed important ecosystems would not be negatively impacted — a claim they said had "no supporting evidence".

The Federal experts also criticised the NSW analysis for not including the effects of the 2019-2020 bushfires, which could have made plants and animals impacted by the dam project more vulnerable or more important.

Source <https://www.abc.net.au/news/2021-07-06/warragamba-dam-project-environmental-federal-government-comments/100262494>

## Raising the dam wall will only partially mitigate problems with downstream flooding

The magnitude of a rain event affects the amount and source of floodwaters, but on average, 45% of floodwaters are derived from areas outside of the upstream Warragamba Dam catchment. This means that no modification of Warragamba Dam can prevent flooding in the Hawkesbury-Nepean plain.

## There are alternative ways to deal with development in the flood plain

Infrastructure NSW's flood strategy states more than 130,000 people live and work on the floodplain, with an expectation that this population will double over the next 30 years.

*The obvious response is to restrict further development within the flood-prone areas, and to **NOT double the population.***

**There has been a serious failure in urban planning in the Nepean-Hawkesbury basin, and this needs to be corrected without delay.**

### Restrict further urban development within flood-prone areas

There are straightforward procedures that can be quickly introduced to restrict population growth in flood-prone areas.

- Immediate introduction of flood-resistant building practices and regulations within the areas affected by flooding, requiring floor levels to be above the 1 in 100 year flood levels.
- Restrict all new buildings to areas with adequate evacuation infrastructure.
- Introduce an insurance surcharge, to be used for new flood evacuation infrastructure and for flood evacuation operations. Financial penalties for building in high-risk areas are justifiable, and expected by the community.

### Enforce flood plain risk management

The Hawkesbury-Nepean Floodplain Management Steering Committee's document [https://www.ses.nsw.gov.au/media/2247/building\\_guidelines.pdf](https://www.ses.nsw.gov.au/media/2247/building_guidelines.pdf) states

The guidance provided through the RFMS (Regional Floodplain Management Study) is available to **guide** development; in itself it does not **regulate** development. It offers a regionally consistent approach to floodplain risk management designed to facilitate informed decision making for strategic land use planning, infrastructure planning, subdivision design and house building on flood prone land.

While there are building codes for other natural hazards including bushfires, earthquakes and cyclones, **there is currently no Australian standard for building in flood prone areas.**

This is clearly inadequate. **The state government's management organisation does not regulate development on flood-prone land.**

This failure of government needs to be corrected immediately.

There are very strict building codes for constructions in areas with bushfire risk, and they are enforced. Risk assessment is controlled by the NSW Rural Fire Service:

<https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/building-after-bush-fire/your-level-of-risk>

Building codes are government controlled:

<https://www.rfs.nsw.gov.au/resources/publications/building-in-a-bush-fire-area>

**The NSW Government should rapidly develop and enforce analogous regulations dealing with flood risk.**

## Dealing with existing housing within flood-prone areas

Professor Pittock (professor of environmental policy at the Australian National University) is advocating for existing homes (about 5000) that are built below the one-in-100-year flood line to be moved into safer areas. <https://www.abc.net.au/news/2021-03-23/plan-for-warragamba-dam-after-sydney-flooding-explained/100021180>

Further interference with the natural and cultural heritage of the catchment area is inexcusable.

Non-indigenous people in Australia are merging with indigenous peoples in appreciation of the values of country, and in the intent to preserve these values. The consequences of climate change and the imperative to maintain biodiversity are joining us all with common purpose. We are all affronted and insulted by any further inundation of the National Parks (5,700 hectares) and the Greater Blue Mountains World Heritage Area (1,300 hectares).

The claim that the proposed inundation will be occasional and temporary does not alter the fact that **any inundation is destructive**.

## World Heritage listing

Blue Mountains Mayor Mark Greenhill says “Let’s be clear. This could spell the end of the World Heritage listing for the Blue Mountains. It’s as simple as that.”

“As outlined today by the Colong Foundation for Wilderness, after four years in which we have seen ongoing protests from Traditional Owners, opposition by UNESCO, condemnation by expert consultants, opposition from the Australian insurance industry, and even objection from the Deputy Premier, the NSW Government has now allowed this exhibition of the EIS to proceed”.

“The raising of the Warragamba Dam will destroy World Heritage listed wilderness on Sydney’s doorstep and desecrate Indigenous heritage and threatened biodiversity.”

“The World Heritage Committee of UNESCO has already asserted that the raising of the dam would be incompatible with World Heritage status and ‘likely to impact on its Outstanding Universal Value’.” <https://www.bmcc.nsw.gov.au/media-centre/blue-mountains-mayor-warragamba-dam-eis-could-mean-end-to-world-heritage-listing>

HeritageNSW has outlined concerns about the proposal, emphasising that the EIS did not properly take into consideration cultural heritage values of the surveyed area. Details are elaborated at <https://nit.com.au/exclusive-heritagensws-scathing-review-of-warragamba-dam-cultural-heritage-report/>

At the World Heritage Committee Meeting held in Azerbaijan in 2019 the UNESCO World Heritage Committee stated “the inundation of areas within the property resulting from the raising of the dam wall are likely to have an impact on the Outstanding Universal Value of the property”. In 2018, Ian Travers then president of Australia ICOMOS (International Council on Monuments and Sites) stated the raising of the dam had the potential to place the Greater Blue Mountains World Heritage Area on the World Heritage Committee’s List of World Heritage in Danger. <https://www.nationaltrust.org.au/blog/why-we-shouldnt-raise-the-warragamba-dam-wall/>

The **National Parks Association of NSW** told a parliamentary inquiry last year that the project would “result in the periodic inundation of extensive areas” of World Heritage-listed reserves around the Greater Blue Mountains national parks. **“The Warragamba proposal therefore represents the largest destruction of conservation lands ever proposed, let alone approved, in NSW.”**

[https://www.colongwilderness.org.au/heritage\\_report\\_slams\\_impact\\_of\\_warragamba\\_dam\\_project](https://www.colongwilderness.org.au/heritage_report_slams_impact_of_warragamba_dam_project)

## Independent assessment of environmental impacts

Australian National University researcher Ross Crates and ecologist Rachel Musgrave worked for SMEC, the consultancy outsourced by WaterNSW to gauge the threat the project posed to the critically endangered regent honeyeater.

The ecologist found the project would likely impact:

- up to half of the remaining population of the critically endangered regent honeyeater;
- 28 species of threatened animals, including nine mammals; and
- thousands of hectares of threatened ecological communities.

<https://www.abc.net.au/news/2021-03-23/questions-over-nsw-government-handling-of-warragamba-dam-project/13230684>

## Interference with this independent assessment of environmental impacts

This ABC report provides evidence of the degree of interference with independent ecological advice. <https://www.abc.net.au/news/2021-03-23/questions-over-nsw-government-handling-of-warragamba-dam-project/13230684>

From Sydney Morning Herald, November 9, 2021.

Dr Crates, who has studied regent honeyeaters for several years, said whole paragraphs had been excluded from his report when presented as part of WaterNSW’s environmental impact statement (EIS) on the proposal. Words such as “will” were changed to “could”.

“There has been significant editing to the wording that I initially proposed for the upstream biodiversity assessment report, and that has been significantly diluted, presumably to water down the envisaged impacts of the proposed development,” Dr Crates said.

Another ecologist who was not involved with the project, Dr Steven Douglas, said he had seen “multiple instances of selective editing to favour the proponent’s interests” when he compared the draft EIS with the final report.

From Sydney Morning Herald, October 28, 2021.

Leaked correspondence reveal WaterNSW wanted terminology in the research to be changed from “would likely” to “may” affect dozens of threatened plant and animal species through upstream inundation.

From <https://www.abc.net.au/news/2021-03-23/questions-over-nsw-government-handling-of-warragamba-dam-project/13230684>

Eventually, the lead ecologist on the project quit.

Emails obtained by the Colong Foundation for Wilderness under FOI laws show she was immediately replaced by someone who, until then, had been working for the government on the dam-raising project at WaterNSW.

From <https://www.theguardian.com/australia-news/2021/sep/29/nsw-governments-assessment-of-raising-warragamba-dam-wall-totally-inadequate-critics-say>

Jamie Pittock, professor of environmental policy at the Australian National University, said the damage the project could cause for wildlife, including the critically endangered regent honeyeater, had only been assessed for a portion of the potential inundation zone.

This was because WaterNSW had only examined the impacts of inundation for about 7.5 metres of the wall-raising project – instead of its full height – commencing at 2.78 metres above the full water level in the current dam.

“The government is trying to pretend that the area of the environmental impact is much less than it actually would be by carving out land at the bottom and the top of the inundation range,” Pittock said.

## Essential points

- ❖ Raising the wall of Warragamba Dam will NOT PROTECT a large proportion (about 40%) of the population of the Hawkesbury Nepean flood plain, and will not discourage further ill-advised development in flood-prone areas.
- ❖ Revised urban planning and enforcement of appropriate building codes can manage the future of the Nepean-Hawkesbury basin. The management of bush fire risk provides guidance to the flood management authorities.
- ❖ Any further inundation of the Burratorang valley is desecration of nature and culture so valuable that they have been committed by the world for preservation. Remember that this is World Heritage, created by the United Nations at the request of Australia.