



Insurance Council
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Ms Kiersten Fishburn
Secretary
NSW Department of Planning, Industry and Environment
Via NSW Planning Portal

19 December 2021

Dear Kiersten,

Warragamba Dam Raising Project – SSI8441 – Insurance Council of Australia, Sydney

The Insurance Council of Australia (ICA) welcomes this opportunity to provide a submission in response to the Warragamba Dam Raising Project (the Project) Environmental Impact Statement (EIS).

The ICA is the representative body for the general insurance industry in Australia, a sector that has a critical role in the economy, protecting individuals and businesses from the financial impact of loss or damage to their insured assets. Our work with our members, consumer groups and all levels of government serves to support consumers and communities when they need it most. Our members represent approximately 95 percent of total premium income written by private sector general insurers, spanning both insurers and reinsurers.

The ICA recognises that there is a significant level of vulnerability for tens of thousands of residents who live in the Hawkesbury-Nepean Valley. This was demonstrated in March 2021 when coastal New South Wales experienced its wettest week since records began, leading to significant flooding in the valley and other parts of the State. We support the need for intervention to manage this risk by reducing the exposure of properties and residents to flood events that damage assets and risk loss of life.

We also recognise that this is a very difficult public policy challenge to address. The pressures of population growth in the Sydney basin, coupled with historical poor land use planning decisions, means there is no simple or single solution.

All solutions need to be fully assessed and balanced against the broader impacts and factors. Across many sectors, including insurance, companies and Governments are taking a broader view of the impacts of their decisions. The heightened focus on environmental, social and governance concerns is being driven by customers, investors and, in some cases, regulators, and is supported by boards because it makes sound business sense over the long term. In the case of advocating for engineered mitigation against the impact of extreme weather, the ICA recognises this cannot be done without consideration for the other impacts these projects can have.

In the case of this proposal, it is only achieved through a degradation of World Heritage Area and cultural sites, and considering that alternative measures do exist, they must be reconsidered.



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In noting this, in our view the EIS would benefit from more thorough analysis of the benefits of the proposal in terms of harm reduction; further assessing the dam raising option against alternative interventions; and ensuring further inappropriate residential development on the floodplain is not incentivised.

Please see attached our summary response to the EIS.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Andrew Hall'.

Andrew Hall
CEO and Executive Director



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Summary of ICA response

The ICA has reviewed the EIS and provides the following submission objecting to the Project on the basis of:

- Unclear justification for the Project's objectives
- Inadequate appraisal of alternative interventions
- Potential for further urbanisation of the floodplain
- Lack of transparency in measuring benefit
- Degradation to the World Heritage upstream natural and cultural heritage

Project objectives

The ICA notes that the Project's objective is to "reduce risk to life and property damage downstream in the Valley by raising Warragamba Dam wall", and the considerations to meet this objective are:

1. Reduce peak flood heights and reducing the flood rate of rise (or delaying the flood peak) downstream
2. Minimise upstream environmental, cultural and social impacts from increased temporary inundation within the catchment of Lake Burrangorang
3. Minimise downstream environmental, social and economic impacts from changes in water releases from the dam
4. Minimise construction impacts
5. Maintain the primary role of Warragamba Dam for water supply
6. Ensure the upgrade meets dam safety requirements
7. Deliver a scheme that has the greatest net benefit for current and future conditions.¹

The nomination of these considerations over others has the effect of influencing the intervention options developed and submitted as part of the EIS.

For example, if an objective of the Project was to preserve or further enhance the cultural and heritage value of the Greater Blue Mountains World Heritage Area (GBMWhA), then the Project would not be pursued as the preferred option. It is unclear why such an objective has been omitted given the location of the Dam within the United Nations Educational Scientific and Cultural Organisation (UNESCO) listed site.

Similarly, the ICA believes that limiting the number of people and properties within the floodplain should be an objective of the Project, as this is the most effective way of managing risk for this floodplain.

The EIS does not provide ways to mitigate the cultural and environmental impacts of the project and so cannot be supported. Most concerningly the EIS outlines that if the Project proceeds there is no capacity to avoid or minimise the harm to indigenous archaeological sites.

¹ Environmental Impact Statement – Chapter 3: Strategic justification and Project need Warragamba Dam Raising Reference No. 30012078, p10



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Alternative interventions – fewer people, less water

The ICA notes that options such as buybacks and increased evacuation capacity have been considered, though justification regarding why these alternatives have been discounted remains unclear. It is understood that in flood-prone areas in countries such as the Netherlands and China, governments have moved away from a sole focus on structural mitigations to reduce risk, instead investing in development planning, buybacks and flood prevention.

It is understood that the option of buybacks would have significant cost implication, however if the environmental impact upstream was valued in a way that is reflective of its significance and character then buybacks would be a more compelling option. In pursuing the option of buybacks, the ICA is not advocating for the sterilisation of the valley, but rather transitioning the land to uses that are more resilient and compatible with the floodplain. International practice shows that floodplains can be used for flood-resilient agriculture, commercial purposes, recreation and tourism, and nature conservation. Development typology within the floodplain should better reflect the probability and impact of flooding in the area.

Buy backs would also have the benefit of eliminating the danger of flood risks to residents who are currently living on the floodplain and would give them the financial means to relocate.

Additionally, the option to permanently reduce that dam's storage capacity, and pursue other water supply options, such as desalination, should be re-examined. It is understood that Greater Sydney would benefit from this beyond the reduced flood impacts, as a more diversified water supply would provide the city with greater security during drought events. While the ICA appreciates that options such as building desalination plants will have associated environmental impacts, it is possible that these impacts are able to be managed and potentially offset.

The ICA suggests the abovementioned options be considered as a bundle and appraised as an alternative to allow for comparison with the Project.

Further urbanisation of the Hawkesbury-Nepean

The ICA recognises the ongoing, complex issue of housing affordability in Sydney, but is concerned that raising the dam wall may be seen by some parties as an opportunity to address this issue by advocating for greater development on the floodplain. Peak property industry groups have already linked the EIS with current opportunities to develop in Sydney's north-west. While we acknowledge the Government's stated intention for the Project does not include supporting greater development on the floodplain, we are concerned that raising the dam wall will act as a future justification to expand the existing area of developable land in the Hawkesbury-Nepean Valley in order to increase housing supply.

In fact, a cost-benefit analysis may offer a view that the dam wall raising can support additional development in the valley, with these benefits offsetting the cost of the wall. Chapter 4 of the EIS states:

The option of disallowing new residential development below the 1 in 500 chance in a year flood extent would have small benefits from reduced damages and risk to life, failing to match the costs.

The ICA opposes any changes that would allow for increased development on the floodplain, which would put more people and property at risk, and recommends legislation prohibiting any further development in vulnerable areas of the floodplain regardless of the intervention that is pursued.



Lack of transparency in measuring benefit

It is our assessment that details of the hydrological modelling undertaken have not been clearly communicated in the EIS. To understand the soundness of the technical work done, the ICA engaged with members and industry partners with technical expertise specific to the Project. Whilst the outcomes of this engagement suggests that appropriate technical work has been undertaken, the ICA is of the view that these details should be accessible and clearly demonstrated in the EIS.

Furthermore, additional information is required to understand input assumptions, such as those regarding climate change, and the impact it will have on the number, frequency and severity of flooding events.

The ICA also recognises that whilst the Warragamba River is the most significant source of water draining into the Hawkesbury-Nepean valley, there are a number of additional tributaries that drain into the valley, contributing up to 67 per cent of inflows². Regardless of the intervention pursued to reduce flood risks associated with the Warragamba River, other measures should be investigated to mitigate the risks of these other watercourses taking into account their environmental value.

Degradation to a World Heritage site

The ICA notes the technical studies completed as part of the EIS submission, but believes there has been an underappreciation of the environmental and cultural significance of the area. In its World Heritage listing UNESCO states:

Most of the natural bushland of the Greater Blue Mountains Area is of high wilderness quality and remains close to pristine. The plant communities and habitats occur almost entirely as an extensive, largely undisturbed matrix almost entirely free of structures, earthworks and other human intervention. Because of its size and connectivity with other protected areas, the area will continue to play a vital role in providing opportunities for adaptation and shifts in range for all native plant and animal species within it, allowing essential ecological processes to continue.

Aboriginal people from six language groups continue to have a custodial relationship with the area. Occupation sites and rock art provide physical evidence of the longevity of the strong Aboriginal cultural connections with the land. The conservation of these associations, together with the elements of the property's natural beauty, contributes to its integrity.³

As the caretaker of the Greater Blue Mountains, recognised as having universal value in its listing as a World Heritage site, the New South Wales Government has a responsibility to preserve it on behalf of current and future generations, and for the Aboriginal peoples that have long held cultural and custodial relationships to the site.

The EIS identifies 76 threatened flora and 16 threatened fauna species that may be adversely impacted by the Project, and also notes that surveys undertaken did not investigate the expected

² NSW SES (<https://www.youtube.com/watch?v=28SN9KixO2I&t=41s>)

³ World Heritage Convention, United Nations Educational Scientific and Cultural Organisation (<https://whc.unesco.org/en/list/917/>)



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area of impact in its entirety, suggesting that additional species may be impacted due to temporary inundation resulting from this Project.

Without satisfactory environmental and cultural heritage impact assessments being completed and made public to allow for full and open assessment the ICA is unable to support an intervention which negatively impacts threatened species and Aboriginal cultural heritage to the degree suggested by the EIS. The EIS suggests that the benefits arising from the Project outweigh the cost to upstream environmental and cultural heritage.

Summary

In summary, the ICA notes that by pursuing the Project, the determining authority must form the view that the trade-off of damage to the globally significant Greater Blue Mountains is justified by the benefits resulting from a reduction in the peak and severity of flooding downstream.

The ICA believes that the social impact analysis inadequately observes the impact of the Project on upstream, downstream and estuary communities, as the implications are of global significance. A UNESCO listed site should be protected on behalf of humanity, both for current and future generations. The scale of benefit of protecting the GBMWHa is larger than what has been appreciated in the EIS, the environmental and cultural impact of the Project is too great, this trade-off cannot be justified, and the proposal in its current form should not be supported.

The ICA calls on State Government to reassess the Project against a combination of alternatives, with research and experts (including insurance industry) that includes a core project aim of preserving or further enhancing the cultural and heritage value of the Greater Blue Mountains World Heritage Area.