From: Sue-Ellen Smith
To: DPE Warragamba Dam EIS Mailbox
Subject: Submission – Warragamba Dam Raising Project – SSI-8441 – Sue-Ellen Smith, Naremburn, 2065
Date: Tuesday, 16 November 2021 12:15:18 AM

To whom it may concern,

I wish to state my STRONG OPPOSITION to raising the Warragamba Dam Wall for the following reasons:

My family has lived and farmed the rich alluvial soils on the Nepean-Hawkesbury flood plain for 7 generations and I have a deep connection to the Nepean River and the Cumberland Plains. I have also experienced a number of floods growing up and I recall local flooding cover Smith Road where I lived preventing us from leaving well before water was released from the Warragamba dam. The propensity for local flooding is just one of the many reasons I see the proposal to raise the Warragamba Dam wall as a very expensive and dangerous folly. Others are:

Biodiversity loss, destruction of Indigenous Sacred Sites.

- Biodiversity offsets the government would need to buy if it raises the Warragamba Dam wall by 14 metres would exceed $1.34 billion to compensate for the loss of flora alone. That is roughly twice the construction cost of lifting the wall that was put at $700 million in 2016.
- Based on the failure pf previous biodiversity offset programs to protect endangered ecosystems and the existence of highly endangered ecosystems in the region that will be inundated it would be impossible to find 'like for like' offsets to compensate for this irreplaceable loss.
- Failure to protect endangered ecosystems and flora and fauna while we are on the verge of an extinction crisis verges on criminal negligence, especially as there are other options on the table.
- The area to be inundated has been identified as a feeding and breeding ground for the critically endangered regent Honeyeater.
- It has been calculated Biodiversity offsets that the government would need to buy if it lifts the Warragamba Dam wall by 14 metres exceed $1.34 billion to compensate for the loss of flora alone. That is roughly twice the construction cost of lifting the wall that was put at $700 million
- Bushfires of 2019/20 devastated 81% of the Blue Mountains Heritage Area resulting in the death and displacement of billions of insects, animals and birds. Intermittent flooding of endangered ecosystems will help drive more species to extinction. The
- In September 2021 NSW Planning Minister Rob Stokes refused to declare the Warragamba Dam wall-raising a critical state project, a classification that would give it effective immunity from legal and regulatory challenges, because it impacts a World Heritage area. My assessment is, Stokes understands the loss of UNESCO listed biodiversity is a price too high to pay for an expensive & destructive project which will lead to development on a flood plain that will not be protected from flooding by the wall raising anyway.

The EIS Compromised and contains major flaws

- EIS has been badly compromised with evidence given to an NSW Upper House investigation by primary ecological assessor Rachel Musgrave and second ecologist Ross Crates that it was altered to downplay the damage that would occur to inundated threatened UNESCO World Heritage ecosystems, such as Grassy Box Woodland and habitat of the critically endangered Regent Honeyeater. Rachel felt so strongly about the damage to her reputation as an independent assessor was so bad that she chose to resign rather than support the final highly flawed report.
- Because the EIS is so badly compromised it needs to be thrown out and redone to reflect an accurate assessment of the damage to 5,700 hectares of National Park, Greater Blue Mountains World Heritage Area and endangered species by the intermittent inundation of flood waters

- Over **1541 identified cultural heritage sites** would be inundated by the proposal to raise the dam wall. The Aboriginal Cultural Heritage Assessment Report has been severely and repeatedly criticised by both the Australian Department of Environment and the International Council on Monuments and Sites (ICOMOS) for not appropriately assessing cultural heritage in meaningful consultation with Gundungurra community members.
- The engineering firm (SMEC Engineering) who undertook the environmental and cultural assessments for the project have an established history abusing Indigenous rights, recently being **barred from the world bank.**
- **No modelling** of the stated flood and economic benefits of the dam wall raising are outlined in the EIS.
- **No post-bushfire field surveys have been undertaken since the** severe fires during the summer of 2019/20 devastated 81% of Blue Mountains Heritage Area.

Insurance

- The Insurance Council of Australia and major insurers IAG and QBE have all withdrawn their support for raising the Warragamba Dam wall because of the high probability of the destruction of both large areas of

natural environment and important Indigenous cultural heritage sites.
- On another important issue, Insurance Council of Australia chief executive Andrew Hall admitted that homes in flood prone areas that regularly flood could cost $30,000 p.a. to insure. This exorbitant cost results in many people choosing not to insure taking the risk of losing everything if their homes are inundated by flood waters.

Alternatives

- The NSW Upper house inquiry'sinterim report into the recent floods and raising the dam wall released on 5 October 2021, calls on the government to "more fully consider" alternatives to the project including the acquisition of properties on the lower flood plain and lowering the full supply level of the current dam.

It also recommends the government work with councils in the Hawkesbury-Nepean region to "urgently develop a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of western Sydney".

- One of the options identified is to make the construction of the Castlereagh Connection a high priority so that 1,000s of people can more easily be evacuated from the flood plain during natural emergencies. However, a letter from Infrastructure NSW to Penrith Council in May 2020 stated that "while a significant flood event has high impact, given its low probability it is difficult to justify the economic benefit when compared with the high cost of building the Castlereagh Connection."

With climate change, extreme weather and local flash flooding is predicted to increase, making this decision a major concernconsidering housing developments already experiencing flooding.

- The NSW government could also buy pack the most flood prone areas and regenerate and preserve endangered Cumberland Plain Woodlands, grasslands and wetlands

Other negative implications of raising the Warragamba Dam Wall

Expanded development on flood plain will endanger 1000s of lives and could result in billions of dollars in property damage

- Until 1984, state government planning policies were aimed at preventing development in flood-prone areas, with a hard and fast rule about applying the one-in-100 flood levels.
- The evidence that the change in policy banning approval of development on 1 in 100 year flood zones has led to greater development in flood prone zone is that there are now 5000 houses in the valley built below the one-in-100-year flood level, and a further 7000 lie under the one-in-500-year flood level.
- The false belief that raising the dam wall will protect proposed housing developments from flood waters on the flood plain will put pressure on councils & the state to approve even more flood prone zones for housing developments.
- Scientistssuch as the ANU's Jamie Pittock have warned that raising the dam wall will not be effective in stopping flooding in the Sydney basin because only about half of the flow into the Sydney basin is moderated by the dam.
- NSW Planning Minister Rob Stokes was so concerned about the recent flooding on the Hawkesbury-Nepean floodplain that in early 2021 he put a stop to billions of dollars of new residential development earmarked for Sydney's north-west until he can be satisfied there are adequate evacuation routes for people fleeing floods.
- In 2020, in the light of the Brisbane floods of 2011, NSW announced plans to toughen up its planning approach on flood plains. It wanted councils to consider scenarios beyond the one-in-100 floods. Neighbouring areas such as Riverstone, Vineyard, Marsden Park North and Penrith Lakes have also flooded regularly since, and wereagain submerged in March 2021
- During the recent floods, WaterNSW estimated that only about half the water in the Hawkesbury Nepean system had come from the Warragamba spill. The remainder came from other tributaries, including the upper Nepean River and the Grose River. Effective flood mitigation requires that the timing of any Warragamba spill be such that it does not coincide with peak flows from these sources.
- Stuart Khan, Professor at the School of Civil & Environmental Engineering observed that the floodplain's population is planned to grow from 70,000 to 200,000 by 2050 and that raising the dam wall does not guarantee protection from flooding. Whether it would significantly reduce the peak flood heights on the Hawkesbury-Nepean would depend on whether the delayed spill coincides with peaks from other tributary inflows. It's all about the timing. Careful timing that plays with 1,000s of people lives, cause major disruption and could easily result in billions of dollars of property & infrastructure damage,

- Joelle Gergis, Senior Lecturer in Climate, ANU observes that the recent floods on the Nepean-Hawkesbury floodplain is consistent with climate change predictions. Heavier, intense rainfall will result in more regular & more damaging local flooding on the flood plain. This is independent of any floodwater feeding the Warragamba Dam catchment.
- The Upper House interim report observed that The Warragamba catchment contributed less than 60% of the flows to the March flood, indicating the significant contribution to major flooding in the valley from catchments other than Warragamba and demonstrating some of the limitations of this proposal. To clarify, greater than 40% of flood water inundating the Nepean-Hawkesbury flood plain came from below the dam
- The Upper House interim report also recommends the government work with councils in the Hawkesbury-Nepean region to "urgently develop a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of western Sydney".
- One of the options identified is to make the construction of the Castlereagh Connection a high priority so that 1,000s of people can be more easily evacuated from the flood plain during natural emergencies. However, a letter from Infrastructure NSW to Penrith Council in May 2020 responded to the request by stating "while a significant flood event has high impact, given its low probability it is difficult to justify the economic benefit when compared with the high cost of building the Castlereagh Connection."

regards

Sue-Ellen Smith

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Yours sincerely,
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I accept the Department's submissions disclaimer and declaration

I have not made a reportable political donation in the past two years.