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Warragamba Dam Assessment Team
Planning and Assessment
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2104

RE: Submission Warragamba Dam Raising Project- SSI-8441

Dear Sir/ Madam,

Thank you for the opportunity to provide my thoughts RE the above

I object to the proposal for the following reasons:

- Warragamba Dam commenced operations in 1960 and was built to supply water for use by residents in the Sydney Basin including the Blue Mountains.
It was never designed nor built for flood mitigation purposes and the site was selected because the Warragamba River which passed through a narrow deep gorge exited into the Burragorang Valley which subsequently drowned when the river backed up along with the township of Burragorang, a pristine river system together with many sites sacred to our First Nations people.
- An article published in 2011 by International Rivers.Org (accessed Dec 2, 2021) suggests that under Climate Change river flows will become more unpredictable due to more extreme rainfall events causing increased siltation of dams, thus “increasing the risk of dam failure and catastrophic flood releases”. In addition, some of the other issues associated with large dams include higher emissions of methane caused by rotting vegetation, reduction in water quality and quantity and also the impact on wetlands and fish stocks both up and downstream. Allowing healthy wild rivers like the Cox and the Kowmung to flow freely are important to not only trap carbon but these rivers are so critical for all biodiversity for without them, the effects of Climate Change will be worse.
- Since its construction the dam wall has been strengthened and raised a further 5 metres and an auxillary spillway was constructed in the 1980s to divert floodwaters around the dam to ensure it remained safe during a severe flood event (Ref: Blue Mountains Conservation Society). If the wall is raised further as proposed, it will drown more Aboriginal sites, places sacred to the Gundungurra people, back up into the pristine wild rivers of the Cox and the Kowmung and parts of the unique and declared Kanangra Boyd and Nattai Wilderness thus threatening the status of The UNESCO Greater Blue Mountains World Heritage Area. These areas are important for all biodiversity and the enjoyment of thousands who visit these landscapes every year.
- As a member of a Bird Survey team which currently undertakes regular monitoring trips into The Richmond Woodlands, I am concerned for the future welfare of critically endangered birds particularly the Regent Honeyeater which is known to inhabit many parts of the area to

be inundated. Much government money has already been put into a Recovery Plan to save this bird and its known habitats, of which 50% was destroyed in the 2019-20 wildfires.

Protecting unburnt breeding country is of the highest conservation priority (Birdlife Australia)

- As a member of the Australian Plants Society and the Cattai Hills Environment Network, it is appalling to read that at least 80 species (plants and fauna) will be impacted by the inundation, even if it is only temporary. Critically endangered plant communities include White Box- Yellow Box- Blakely's Red Gum Forest and Grassy Woodlands, Derived Native Grassland and the Shale Sandstone Transition Forest of the Sydney Basin Bioregion.
- Devastation from above ground flooding is obvious, but the real damage lies underground. Healthy soil provides all plants with nutrients, oxygen, anchorage and water, however once the soil becomes saturated, all the air pockets are removed. Once the root zone, especially the fine hairs at the tips become submerged, it's only a matter of hours before these die. This will be the same for all plants, from the smallest moss to old growth forests which are also home to a great variety of birds and mammals. Restoration takes years and will not be worth the time and effort with successive inundations. In addition if the plan goes ahead, ecologists and botanists should be given every opportunity to collect as many plant samples as possible whether it be seed or cutting to prepare for worst case scenario so at least plants endemic to the area can also be recorded.
- Elevating and reinforcing the floodplain to allow an estimated 134.000 people to live there is unacceptable. A floodplain belongs to the river system and in extreme flood events such as experienced in March (2021), the river will reclaim this ground sweeping away everything in its path, making home and business insurance virtually unattainable for many who choose to live or can only afford to live in flood prone areas.
- Building a higher dam wall will just give people a false sense of security that the wall will be able to hold back flood waters. This is what happened in Queensland with the Wivenhoe Dam. People were lulled into a false sense of security. Like levees, dam walls fail and the risk of being flooded downstream can never be eliminated.

The events of January 2011 in SE Queensland involving weeks of heavy rain resulting in severe flooding through Toowoomba and the Lockyer Valley and onto the City of Brisbane should serve as a timely reminder **not to allow any development on the Hawkesbury Nepean Flood Plain, nor in any other area fed by these river systems and their tributaries.**

- Instead of putting funds into building a higher dam wall, it should be re- directed into re- locating business and residential properties currently in flood prone areas to more suitable sites. The funds could also be used to plan better escape routes(roads) in order for people to get to higher ground more quickly.
- Improve flood warning systems along the entire length of the Hawkesbury Nepean River System.
- For people living in flood prone areas, even if it is designated 1:100 or 1:500 flood area, ensure that Emergency Warning messages be sent to people's registered mobile phone numbers alerting them to a flood event (possible or actual) so they have time to gather possessions and leave home safely.
- The flooding which occurred in March this year was not just from the dam spilling over the top but also from water entering the Hawkesbury Nepean floodplain from the Grose, Colo and Mc Donald Rivers, ALL of which lie downstream from Warragamba Dam.
- Consider reducing the Dam's capacity to 80 per cent, when there is a big rain event predicted. As the level rises there can be controlled releases for flood mitigation. Timely

advice via media and emergency services will ameliorate the effects on residents and businesses.

Flooding is devastating for all concerned, and so is fire, but raising the Wall to increase storage capacity, for flood mitigation and then to allow residential and business development in flood prone areas along the Hawkesbury Nepean Valley and its associated river systems is unthinkable and dangerous.

And so too will be the effects of inundation of precious habitat, wild rivers, wilderness, all biodiversity which dwells within and the loss of status for The Greater Blue Mountains World Heritage Area.

Kind regards,

Erica Nash
Member, Cattai -Hills Environment Network

NB I have not made any donation to any political parties within the last two years.