P G Maslen
7 King Parrot Parade
Gulmarrad. NSW. 2463
Telephone: (02) 6645 4060
Email: rpmaslen@bigpond.net.au

19th December 2021

Warragamba Dam Assessment Team
Planning and Assessment
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2124

SUBJECT: Submission on Warragamba Dam Raising

I oppose the NSW Government's proposed raising of Warragamba Dam on the basis that it will not prevent flooding of the Hawkesbury River flood plain and it will have significantly negative impacts on the Greater Blue Mountains World Heritage Area (GBMWHA) and other natural areas impacted by raised water levels.

Planning Issues

The prime reason for consideration of flood prevention is due to historic poor planning decisions which has permitted residential uses in areas where construction of housing should never be permitted in the flood plain. The costs both directly and indirectly, to the community does not justify the short term benefits to those constructing subdivisions. By raising the dam and permitting even more inappropriate housing subdivisions in the Hawkesbury flood plain the government would be irresponsible as it will result in further costs to the community and extreme stress to those that are misled into believing their homes will be safe from future flooding. The costs will not only be on the directly effected but also on the whole of the Australia and New South Wales (NSW) community in the disaster relief funding from government and the increases in all insurance policy costs to list a couple of community costs.

The integrity of the environmental assessment appears to be fundamentally flawed and cannot be accepted as a basis for further decision-making by the Minister for Planning and Public Spaces.

Flooding Issues

The attempt at dual purpose use of dams for water storage for agricultural or suburban uses and flood mitigation has proven in many locations around the world to be flawed in that the latter use is not ;achieved. Recent Australian examples of this failure are: the 2011 Brisbane; the 2019 Townsville; and, the recent 2021 flooding of western NSW. Many of NSW's western rivers exhibited the same result as dams which have a prime purpose of water supply and being near full, could not be used for flood mitigation resulting in flooding of towns and agricultural lands with the corresponding economic and social negative impacts. In all situations, the prime issue was the attempt to minimise water loss for future human, industrial and agricultural uses causing dam levels to be maintained high with higher than normal rainfall, being not conducive to flood mitigation. Regardless of the attempted justification in the project reports, it is unlikely that the raising will prevent flooding of the Hawkesbury River flood plain.

The raising of the dam only effects half the flows of the Hawkesbury Nepean River system, hence the flooding of the flood plain will still occur and continue to be impacted at periods on flood flows. On average, 45% of floodwaters in the Hawkesbury-Nepean River catchment are derived from areas outside of the upstream Warragamba Dam catchment. This means that no matter how high the dam wall is constructed, it will not be able to prevent flooding in the Hawkesbury-Nepean valley downstream. The tidal influences extend to around the confluence of the Grose and Nepean Rivers.

Hence when waters from the Grose River and those which enter the system from the Colo River are backed up due to high tidal flows, the flooding effects upstream will still be evident. No modelling of the stated flood and economic benefits of the dam wall raising are outlined in the Environmental Impact Statement (EIS) or compared to the alternatives and the relative cost savings.

Environmental Issues

The proposal to raise Warragamba Dam will have unacceptable potential impacts on the environment including to the GBMWHA and threatened species. Since the early 1970s as Chairman of the Colong Foundation for Wilderness, I spent over 20 years in campaigns to protect the natural heritage the of the greater Blue Mountains including the Blue Mountains National Park, Kanangra-Boyd National Park, Burragorang State Conservation Area, Nattai National Park, Nattai State Conservation Area and Yerranderie State Conservation Area. It will be interesting if the government takes its UNESCO obligations seriously and continues with the project ignoring the requirements of international agreements as occurs in many other projects in Australia. If so it will demonstrate a continuing Australia government trend at all government levels of ignoring international agreements to protect natural systems and species.

The following are environmental issues which have formed my opinion:

- In assessing the reports and reviewing reports by others, it appears the damage the project could cause for wildlife, including the critically endangered regent honeyeater, has only been assessed for a portion of the potential inundation zone. The damage the project could cause for wildlife had only been assessed for a portion of the potential inundation zone.

- There are 80 known species of threatened flora and fauna at and upstream of Warragamba Dam. The inundation of national parkland and part of the Greater Blue Mountains World Heritage Area, for at least two weeks at a time, will have significant detrimental impacts on threatened species. This includes two critically endangered ecological communities being the White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland, and the Shale Sandstone Transition Forest of the Sydney Basin Bioregion. Threatened animals that will be impacted include the endangered Macquarie perch and the critically endangered regent honeyeater. Fewer than 400 mature regent honeyeaters remain in the wild. It is a species on the brink of extinction.

  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 International Council on Monuments and Site (ICOMOS) 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.

- The draft EIS concludes that the project poses potential significant impacts to contemporary breeding habitat for the Regent Honeyeater that "cannot be avoided or minimised". The Regent Honeyeater is listed as Critically Endangered at both a state and federal level, with as few as 350 individuals remaining in the wild. Modelling by BirdLife Australia suggested that up to 50% of contemporary Regent Honeyeater foraging and breeding habitat was burnt in the 2019/20 bushfires. Protecting remaining unburnt breeding habitat is of the highest conservation priority. There are only a handful of contemporary breeding sites for Regent Honeyeater and during the assessment of the project a total of twenty one (21) Regent Honeyeaters, including active nests, were recorded within the impact area. Any breeding habitat is considered *habitat critical for survival* of the species under the National Recovery Plan for Regent Honeyeater and it states "*It is essential that the highest level of protection is provided to these areas and that enhancement and protection measures target these productive sites*". The destruction or degradation of a contemporary breeding site for Regent Honeyeaters would have dire consequences for the species. The destruction and degradation of breeding habitat for Regent Honeyeaters is incongruous with the time and money that the Federal and NSW Governments have invested into the recovery program, including the Regent Honeyeater Captive Breeding

and Release program. It is unacceptable and inconsistent with the National Recovery Plan for any avoidable loss or degradation of breeding habitat to occur.

- Sydney's remaining emu population will be negatively impacted.

- Threatened species surveys are substantially less than guideline requirements. Where field surveys were not adequately completed, expert reports were not obtained.

- Severe fires during the summer of 2019/20 devastated 81% of Blue Mountains World Heritage Area. No post-bushfire field surveys have been undertaken and hence the validity of the submitted reports relative to the current situation is unknown.

- The Project's offset strategy for the Regent Honeyeater is not a guaranteed solution to the prosed losses. Offsets are rarely an appropriate response to proposed biodiversity loss and especially for critical habitat for the survival of a species, in this case breeding habitat for the Critically Endangered Regent Honeyeater. There is no evidence that breeding habitat for Regent Honeyeaters can be successfully offset, and any offsets would be unlikely to provide direct benefits for both the local affected population and the species. Offsets do not appear to have been accounted for the whole of the potentially impacted area and hence are inadequate even if they were totally effective in offsetting the impacts which rarely occurs with offset schemes. Rarely do offsets result in acceptable solutions as I have stated in various submissions to Australian governments and most recently in my submission to the NSW Inquiry into the Integrity of the NSW Biodiversity Offset Scheme.

- The destruction of 65 kilometres of wilderness rivers, including the Kowmung River - a declared 'Wild River', protected for its pristine condition under the National Parks and Wildlife Act.

- The implication that the stated 0.13% of the GBMWHA can be an acceptable negative impacted is offensive. The area of increased impact on natural systems is greater than this. The statement that *the upstream area is already subject to flooding from inflows to Lake Burragorang*, with the implication that a little more is inconsequential demonstrates the general lack of concern by the consultants for negative environmental impacts. This progressive degradation of the natural heritage of our state and country by inappropriate government decisions is unacceptable. This type of poor government decision making is why the continuing and progressive loss and degradation of habitat and the resultant continued increase in the loss of biodiversity and the increase in threatened species of fauna and flora, is occurring. The excuse that the impacts are minor and therefor acceptable is flawed as the progressive *death by a thousand cuts* is causing the negative issues on Australian ecosystems and individual species.

Cultural Heritage Issues

Raising the Warragamba dam wall is a clear breach of Australia's obligations under the World Heritage Convention with regard to cultural heritage:

- It is reputed it would destroy over 1541 cultural heritage sites being inundated if the dam wall raising proceeded. Gundungurra Traditional Owners do not support the dam and have asked the government not to proceed with the project.

- 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.

- Over 860 archaeological deposits are reputed to be affected by the plan to raise the Warragamba Dam wall. There is no indication that these have been verified and surveyed in the NSW Government's impact assessment.

- Only 27% of the impact area was assessed for Aboriginal Cultural Heritage.

- With the engineering firm (SMEC Engineering, owned by Surbana Jurong Private Limited, a Singaporean government-owned consultancy company) who undertook the environmental and cultural assessments for the project, have an established history abusing Indigenous rights, recently being barred from the world bank for projects in some countries, the integrity of the report is put in jeopardy**.**

Alternatives to raising Warragamba Dam wall

There are many alternative options to raising the Warragamba Dam wall that would protect existing floodplain communities. A combined approach of multiple options has been recommended as the most cost-effective means of flood risk mitigation.

Alternatives to raising the dam wall such as lowering the full supply level of the existing dam, improved evacuation routes for Hawkesbury-Nepean Valley residents, and the consideration of buying back flood-prone land, exist. In the long term the latter would be cost beneficial as the expense of the proposal would not occur, costs of disaster relief programmes would not occur and the indirect costs to the community mentioned above, would not exist. Alternative options were not comprehensively assessed in the EIS or compared. Any assessment of alternatives does not take into account the economic benefits that would offset the initial cost of implementation. The concern regarding water storage can be alleviated if more recycled water was used in Sydney's water supply system.

I give permission for this submission to be made public.

I commend my comments to the assessment team and implore an alternative approach to the reduction of flood impacts be developed.

Yours faithfully,

Peter G Maslen BE BSc FIE (retired)