

# **Submission to EIS for Warragamba Dam raising**

## **Objection**

I am an ecologist and who has worked for both the NSW State and the Federal Government in senior environmental assessment and management roles. I have a knowledge going back decades of the lands which would be inundated due to the proposed raising of the dam wall based on field experience and study.

**I have very strong objections to the Warragamba Dam raising proposal based on the unacceptable impacts to the environment, Aboriginal and archaeological sites and values, and social and recreational values and the serious flaws in the EIS.**

**This proposal must not be approved.**

### **Introduction**

I note and understand from its website that The Department of Planning, Industry and Environment acknowledges the Traditional Custodians of the land and pays respect to all Elders past, present and future.

Accordingly, I respectfully request that this process of assessment of this EIS adheres to the statement on the NSW Government planning portal. This would mean that this proposal does not go ahead.

I note that the EIS states that the Operational objectives are to:

- maintain the structural integrity of the dam
- minimise risk to life
- maintain Sydney's water supply
- minimise downstream impact of flooding to properties
- minimise environmental impact
- minimise social impact.

It is not possible to do all of these at the same time.

The EIS has not satisfactorily explained how environmental impact would be minimised or mitigated given the proposal would inundate 5,700 hectares of National Parks, 1,300 hectares of World Heritage Area, more than 60 kilometres of wilderness rivers and thousands of Aboriginal sites and places of cultural significance.

And I note that there is no operational objective relating to managing Aboriginal and archaeological values.

## **Reasons for my objections to this proposal**

- The raising of the dam wall would result in unacceptable impacts to the environment (including flora, fauna, biodiversity, ecological communities), Aboriginal and archaeological sites and values, and social and recreational values.
- The EIS is flawed and deficient in a many of ways. I outline some of these below.

## **Environmental, Cultural and Social Impacts**

The proposal would, if approved have devastating impact on environmental values including ecological communities and rare and threatened species, Indigenous cultural sites and values and recreational and tourism values.

It would irrevocably damage 5,700 hectares of National Parks, 1,300 hectares of World Heritage Area, more than 60 kilometres of wilderness rivers and thousands of Aboriginal sites and places of cultural significance. These areas include some of the best and healthiest remaining grassy woodland ecosystem in NSW. These grassy woodlands have been reduced to a tiny proportion of their original coverage, due to urban development, agriculture and other developments so that those areas that remain are critical to be protected. The forest and health ecosystems also are home to many important ecological communities and rare and threatened species.

Social impacts would include:

- the impacts on the Wollondilly community from the high number of by heavy vehicles, noise and dust that would be the result of construction and also on going maintenance
- The loss of important tourism and recreational sites including bushwalking areas due to construction and inundation.

## **Flaw No. 1. The whole basis of the proposal ie - flood mitigation - is flawed.**

The whole basis for the proposal is flawed and therefore the proposal must not be approved.

The proposal is based largely on protecting downstream settlements from inundation in large floods. However, nearly half the floodwaters that have historically impacted the floodplain come from rivers outside the Warragamba catchment.

Warragamba is not designed as a flood mitigation structure nor is it operated as a flood mitigation structure.

If it were operated as a flood mitigation structure then its ability to store water would be compromised.

The risk and extent of environmental damage from inundation to downstream properties would actually be increased if the proposal went ahead.

This is because existing built-up areas would actually be at heightened risk of catastrophic flooding when the larger amount of water in the dam has to be released in very severe flood event – which has to happen in the future with climate change. While the EIS says that the level of the dam would be lowered in flood times, it has been seen in Australia that climate parameters can change quickly and this would not always be possible.

In addition, the proposal would potentially be seen to allow increased urbanisation downstream of the dam while in fact these areas would be similarly at heightened risk of catastrophic flooding. This is very problematic.

### **Flaw No. 2. The EIS has not adequately addressed viable alternatives.**

An EIS is obliged to consider alternatives to the proposal. This has not been adequately or sufficiently done.

There are better and more cost-effective ways of reducing the risk of inundation of downstream areas.

These alternatives include:

- Clarification of and improvement to evacuation routes for people living in the Penrith and Hawkesbury areas
- Stop allowing further development in the floodplain
- Spillways
- A program of compulsory acquisition of existing downstream flood affected properties over time to create floodplain open space corridors
- Increasing the use of recycled water and other water management strategies to reduce the need for extra water storage.

Some analyses have concluded that a raft of alternatives would be cheaper and more effective to reduce the impacts of floods in these flood prone areas.

### **Flaw No. 3. World Heritage Area and National Park status has been either ignored or discounted**

The designation of much of the area that would be destroyed or affected by long term or short-term inundation and destruction is of World Heritage Area and National Park status. These are international recognised declarations by the Federal and the NSW State Government that some of the lands that would be adversely impacted by the proposal have very special worth and are to be protected for the people of NSW, Australia and the World.

These declarations represent a commitment by the Federal and the NSW State Government to protect these areas.

Australia is a signatory to the World Heritage Convention and allowing this proposal is contrary to our commitments under this convention.

The UNESCO World Heritage Committee has raised concerns about impacts of the extent and frequency of flooding associated with the raising of the dam on this World Heritage area.

The EIS has not taking this into consideration. The only way the impacts could be adequately mitigated is to reject this proposal.

A NSW Government entity must not be permitted to negate the commitments made by the Federal and the NSW State Government to protect these areas.

**Flaw No. 3. The extent of the damage to biodiversity, flora and fauna and ecological communities has not been adequately surveyed, has been inaccurately reported and understated**

The ecological surveys have been inadequate and also allegedly watered down to reduce veracity of the information that has been included in the EIS and downplay the likely environmental impacts.

In addition, no post-fires field surveys have been conducted on threatened species or cultural sites, despite a very large proportion of the Greater Blue Mountains and this impact area burning to an unprecedented severity and extent in 2019/20.

The impact of these extensive bushfires has critically increased the value and environmental status of those areas which were not burned in the 2019/20 fires and also impacts on the status and values of the areas that were not burned. This is critical information to the assessment of this proposal however this critical factor has been simply ignored. This is not acceptable.

Even with this inadequate assessment, various Endangered Ecological Communities (CEEC) were identified. This includes the White Box Yellow Box Blakely's Red Gum Woodland Critically Endangered Ecological Community (CEEC) and the River Flat Eucalypt Forest on Coastal Wetlands Endangered Ecological Community (EEC) .

The EIS should not be assessed until:

- adequate and independent information is available to assess the likely risks to environmental values.
- an independent inquiry into the alleged doctoring and watering down of the environmental values information has been carried out.
- The original reports of the environmental consultants have been made public.

**Flaw No. 4. Environmental protection is completely inadequate with the proposal to use offsets completely untenable and misleading to even suggest it.**

The suggestion that the environmental impact of this proposal can be mitigated by offsets is preposterous.

How can 5,700 hectares of National Parks, 1,300 hectares of World Heritage Area, more than 60 kilometres of wilderness rivers and thousands of Aboriginal sites and places of cultural significance be offset?

In fact the EIS does not even propose to offset all of the areas that would be affected in any more than a 1 in a 20 year flood. And we all know that “1 in a 100 year”\*\* floods are becoming more common with climate change.

A key principle of offsetting includes the purchase and ongoing management and monitoring of areas that contain the values that would be lost in the proposal. The areas to be purchased must be at risk of environmental degradation. As stated above, it would be impossible to find areas of *equivalent* values and area to offset the lands that would be inundated.

The proposal to offset the environmental damage is clearly not possible and should not be used as a screen to pretend that destruction of these environmental, archaeological and cultural values can be mitigated.

There must be an independent expert assessment on the ability of offsets to remedy the predicted massive environmental damage from proposed inundation.

**\*\* Note to the people assessing this EIS.** A 1 in a 100 year flood does not mean that it will occur once in a 100 years. 1-in-100-year flood refers to a flood height that has a long-term average of 1 in a hundred (1%) chance of happening in any given year. In fact, you can have these in consecutive years. And with climate change, this chance is increasing so that these levels need to be recalibrated.

**Flaw No. 5. The EIS does not include any estimate of the costs of offsetting the enormous environmental damage that would be caused.**

This is completely unacceptable as this is the major manner that the EIS proposes that the highly significant impacts on biodiversity, rare and threatened species and ecological communities would be mitigated.

Calculations based on the NSW Government’s biodiversity laws and offsets trading scheme suggests that the total cost of biodiversity offsets would be around **\$2 billion**. There would be high and ongoing cost associated with maintenance and monitoring of any offset areas.

Unless the EIS were to be changed to admit that the proposal to offset the environmental destruction is not feasible (which would admit that it is not possible to mitigate the environmental impacts) Water NSW must include an addendum to the EIS to include an accurately calculated dollar value for the proposed offsetting.

This amount would need to be included in the calculations of cost and benefits for the proposal and for the people of NSW.

## **Flaw No. 6. Aboriginal heritage and cultural values assessment is inadequate**

The impacts on Aboriginal heritage and cultural assets have been understated and apparently not taken into account in coming to the recommendations of the EIS.

The extent of Archaeological survey (33% of the proposed inundation area) and investigation of cultural values surveys has been inadequate. In this landscape, based on knowledge of Aboriginal sites in this landscape and the high number of important sites which were revealed in the survey of 33% of the area, it is obvious that there would be a further very high number of sites in the unsurveyed impact area.

Despite the results of the surveys yielding an extremely large number of sites, this has been discounted in the recommendation to go ahead with the proposal.

In addition, there are well documented dreaming stories which are represented by sites and physical attributes in the impacted area. It is very unusual that dreaming sites are so well documented and have such a physical presence in the landscape.

Some of these dreaming sites have already been destroyed by inundation from the existing dam. This means the sites that are remaining have an extremely high value for the Traditional Owners and in fact all Indigenous people and the people of Australia. These and should not be damaged.

I note that these dreaming landscapes and sites have been attributed a very high value by the Indigenous community but this has, once again, been discounted by the EIS and no reasonable mitigation is proposed. In fact, the only effective mitigation would be to reject the proposed dam wall raising.

The value of the whole PUIA for Aboriginal sites and values must be seen in the context that this is an area that still has much of its value intact. The fact that a large amount of Aboriginal cultural heritage has previously been affected by the original development of the Warragamba Dam and the 2019/20 bushfires means that what is left is even more valuable.

A further point of argument against destroying these sites is that the Aboriginal cultural heritage is an integral part of the World Heritage listing and proposed devastating impact to this would further compromise the values of this listing and the internationally recognised area. The Government of NSW has a responsibility to maintain the values of the World Heritage area.

I note that the EIS states that “While no Aboriginal places have been declared in the study area, there is a current nomination for creation of an Aboriginal Place for the entirety of the Burraborang Valley.” (page 18-46 of EIS).

While this gives further evidence of the importance of the areas proposed for inundation for Aboriginal culture and archaeological value, again there is no value put on this in the recommendations of the EIS.

I understand that no consent has been obtained from the Gundungurra Traditional Owners for the work that will significantly impact their cultural heritage.

The proposal fails to protect Gundungurra sacred sites, and other areas of archaeological significance.

I understand that the Federal Department of Agriculture, Water and the Environment and the International Council on Monuments and Sites have both highlighted very serious failings in the assessment of the impact on the cultural heritage of the Gundungurra traditional owners.

**Flaw No. 7. No real mitigation for the loss of Aboriginal heritage and cultural values and sites and values is proposed**

The only measures that I could see in the EIS for mitigation of the destruction of the most of the sites and values in the PUIA are:

1. to conclude that “there would be no significant detrimental effect to quality or benefit that the Aboriginal history and archaeology of the PUIA may provide to future generations” (EIS p 18\_56). Note: This is disputed by some Aboriginal people. and
2. to propose the preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP). (ESI p 18-68). The ACHMP would presumably include the documentation of some of the sites that will be damaged or destroyed, but these will still be damaged or destroyed so it does not mitigate the impact to these sites and values. We might just know a bit more about what was destroyed.

I note and understand from its website that the Department of Planning, Industry and Environment acknowledges the Traditional Custodians of the land and pays respect to all Elders past, present and future.

I respectfully point out that any recommendation by the Department that this proposal go ahead as is, would show that the Department in fact has little respect for all Elders past, present and future of the lands which would be impacted, nor of the lands where the assessment had taken place. This is because the EIS neither sufficiently acknowledges the importance or of the areas that would be damaged or destroyed consequent to the proposal nor does it present any viable strategies for mitigation of these significant impacts.

We do not want another internationally condemned Juuken Gorge moment – perpetuated by our State Government.

In conclusion for this section of my submission, I would like to paraphrase the conclusions of the EIS: The EIS seems to say that there are many Aboriginal sites that have been found and will be present in those areas not surveyed but that these sites and the value of the Aboriginal artifacts, places and dreaming landscapes do not matter.



This is despite the fact that there is a current nomination for creation of an Aboriginal Place for the entirety of the Burraborang Valley.” (page 18-46 of EIS).

The EIS fails to present any ways to actually mitigate the significant loss of Aboriginal heritage and cultural assets which would occur if the dam wall were to be raised.

**Flaw No. 8. Key social impacts are ignored or discounted.**

Communities in the Shire of Wollondilly would be negatively impacted by heavy vehicles, noise and dust associated with construction.

There would be a loss of important tourism and recreational sites due to flooding and construction.

**Additional issues**

Water NSW must publicly address the issue of whether there will be any restitution to Indigenous people and the people of NSW for the proposed loss of Aboriginal heritage and cultural assets due to inundation from the increased height of the dam wall.

Water NSW must publicly address the issue of whether any, and if so what, compensation would be payable to the Traditional Owners if Aboriginal heritage and cultural assets at these sites were destroyed, which would be the case if the proposal were to go ahead.

**Issues to be addressed by the proponent following analysis of submissions**

I understand that following analysis of submissions, the proponent must prepare a report which addresses the issues raised in the submissions.

Therefore Water NSW or the NSW Government must publicly address each of the flaws in the EIS identified above in this submission and the other issues I have raised in this submission and make this available to the decision makers.