

**INQUIRY INTO PROPOSAL TO RAISE THE  
WARRAGAMBA DAM WALL**

**Organisation:** Colong Foundation for Wilderness

**Date Received:** 10 September 2019

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Partially  
Confidential

## **Colong Foundation for Wilderness Submission to the Select Committee on the Proposal to Raise the Warragamba Dam Wall**

Dear Committee,

Please accept this submission to the Legislative Council's Select Committee Inquiry into the Proposal to Raise the Warragamba Dam Wall. We consent to this submission and our names being published in full.

Our organisation is opposed to this project, and recommends the committee adopt this position.

We have divided our submission into twelve sections dealing with various aspects of the Warragamba Dam wall raising project and the associated downstream floodplain development, as is defined in the Inquiry's terms of reference. They are as follows;

- 1. The Colong Foundation for Wilderness and the wilderness impacts of the project**
- 2. Limited flood mitigation provided by raising the dam wall**
- 3. Poor consultative process and discredited Government consultants**
- 4. The impact of the project on the Greater Blue Mountains World Heritage Area and its listing**
- 5. Misleading upstream inundation levels**
- 6. The NSW State Emergency Services involvement with the project**
- 7. Lack of new evacuation routes**
- 8. The support of the insurance industry**
- 9. Links between floodplain developers and the NSW Liberal Party**
- 10. Providing additional airspace using the current dam capacity**
- 11. Comments on cost benefit analysis**
- 12. Confusion about the purpose of the project**

If required, Campaign Director Harry Burkitt can provide verbal evidence to the inquiry. He is available on \_\_\_\_\_ and \_\_\_\_\_

## **1. The Colong Foundation for Wilderness and the wilderness impacts of the project**

The Colong Foundation for Wilderness Ltd is a non-profit, non-government charity that works for the protection of wilderness and national parks and represents over 35,000 supporters, donors and members. Established as the successor to Myles Dunphy's National Parks and Primitive Areas Council in 1968, it is Australia's longest-serving community advocate for wilderness. Its proposal for a Wilderness Act was accepted in 1987, with Liberal Environment Minister Tim More declaring the first wilderness area in 1991. The Colong Foundation seeks to promote the idea of natural areas existing for nature's sake because "wilderness comprises the last substantial remnants of the ecologically complete environment that once covered the earth" (Alex Colley, O.A.M). The Colong Foundation monitors NSW wilderness areas to identify threats and formulate site specific protection remedies. There are now 2,087,240 ha of wilderness in NSW.

The Colong Foundation has played a critical role in protecting the Blue Mountains from a range of threats since its inception, such as proposed limestone mining at Colong Caves and planting pine trees on Boyd Plateau. The gazetting of the Blue Mountains National Park and its listing as a World Heritage Area was a direct result of the advocacy of the Colong Foundation. The Foundation currently runs the GIVE A DAM campaign, which seeks to stop the raising of Warragamba Dam wall.

The southern Blue Mountains is one of the largest, most rugged and scenic wilderness areas in NSW. By raising Warragamba Dam wall 14 to 17 metres<sup>1</sup>, more than 5,000 hectares of the Blue Mountains National Park, including at least 1000 hectares of the Greater Blue Mountains World Heritage Area would be flooded, desecrating kilometres of pristine rivers. As will be outlined in other submissions to this inquiry, raising the dam wall would undermine the cultural, scenic, biodiversity and world heritage values of the area. These matters are currently subject to ongoing deliberations by the UNESCO World Heritage Committee and its expert advisory bodies.

The proposed raising of Warragamba Dam wall would impact parts of the Kowmung River (a designated wild river), as well as parts of the Yerranderie, Burratorang and Nattai State Conservation Areas. It would dramatically undermine the Nattai and Kanangra-Boyd wilderness areas and their associated landscape integrity values which have experienced little modification by humans since European settlement. These concerns were expressed in a letter signed by 40 scientists, conservationists and eminent persons to the NSW Government in 2018 (Appendix AA).

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<sup>1</sup><https://www.smh.com.au/environment/conservation/government-s-secret-plan-to-raise-warragamba-dam-wall-by-17m-20190315-p5141q.html>

***The committee should examine the ecological impacts of raising the dam wall, and the extent to which NSW Government consultants have undertaken adequate surveys to assess these impacts.***

***The committee needs to clarify the height to which the NSW Government plans to raise the dam wall, given media reports have indicated that it would be raised by 17 metres, and not the publicly stated 14 metres.***

## **2. Limited flood mitigation provided by raising the dam wall**

Hydrographs leaked to the Sydney Morning Herald in August 2019 call into question the utility and effectiveness of the dam project (Appendix A). The hydrographs undermine the NSW Government's claim that the raised dam would safeguard the Hawkesbury-Nepean valley against "major floods"<sup>2</sup>.

The hydrographs show that the dam would have little impact on reducing the peaks of large floods and would in fact increase the duration of flooding downstream urbanised areas. While modelling may possibly establish that the dam project would cause a moderate reduction to floods below a 1:250-year event, smaller floods however, precisely pose less threat to property and life, and are better mitigated through alternative measures including evacuation routes and managing the existing storage capacity of Warragamba Dam. Properties which are susceptible to flooding from these smaller, more regular, events should be targeted for buyback by the NSW Government. These properties will always be in harm's way and are a relic of lax zoning laws.

Importantly, no configuration of Warragamba Dam will prevent flooding in the Hawkesbury-Nepean Valley. Since the dam's construction in 1960, the contribution of the Warragamba catchment to major flooding events has ranged from 73% to 42%. An average of 45% of floodwaters originate from catchment areas that are not upstream of Warragamba Dam<sup>3</sup>. This means that even if a raised Warragamba Dam was to hold back some flood waters, other catchments could still cause significant flooding in the valley. In fact, flood waters from the Grose River alone can cause moderate to major flooding of Richmond in the lower Hawkesbury<sup>4</sup>.

***We submit that the committee ensure the release of all flood modelling that informed the cost benefit analysis for the decision to raise Warragamba Dam wall, including assumptions used for downstream flood damages.***

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<sup>2</sup> <https://www.smh.com.au/environment/conservation/leaked-charts-undercut-case-to-lift-warragamba-dam-wall-opponents-20190803-p52djf.html>

<sup>3</sup> <https://www.ses.nsw.gov.au/media/1627/plan-hawkesbury-nepean-flood-plan-sept-2015-endorsed.pdf>

<sup>4</sup> Australian Water and Coastal Studies (AWACS). 1997. Lower Hawkesbury River Flood Study. Prepared for NSW Department of Land and Water Conservation, Sydney

### **3. Poor consultative process and discredited Government consultants**

We refer to a submission to this enquiry by 18 Asian and African Environmental and Indigenous NGOs detailing their profound concerns about the approach of the Snowy Mountains Engineering Corp (SMEC Engineering), the company tasked with completing the environmental and cultural assessments for the Warragamba Dam raising project. The concerns raised in this submission call the process by which the company was chosen as the lead consultant in the Warragamba project by the NSW Government into question.

Blue Mountains Traditional Owners have labelled SMEC's report as "insulting" and "an attempt to justify the destruction of hundreds of sites" in favour of the NSW Government's wish to raise the dam wall<sup>5</sup>. When Traditional Owners invited SMEC and WaterNSW to attend a public meeting to discuss their concerns in August 2019, they simply didn't show up<sup>6</sup>.

When SMEC Engineering held their first consultation meeting about Warragamba Dam wall raising project in 2018, Traditional Owners were given just four days' warning by SMEC of the consultation meeting being held in northern Sydney, more than a three-hour drive in peak-hour traffic from the Blue Mountains<sup>7</sup>.

***We submit that the committee call on SMEC CEO, \_\_\_\_\_, to give evidence at the Parliamentary inquiry to explain how his company was chosen by the NSW Government to undertake this project and why his company has not abided by IUCN<sup>8</sup> and ICOMOS<sup>9</sup> World Heritage Assessment Guidelines in writing their assessment on the flooding of the Greater Blue Mountains World Heritage Area and its cultural values.***

***We submit that the committee also call on \_\_\_\_\_ of Niche Heritage Consulting (SMEC sub-contractor) to give evidence at the inquiry about the inadequacies of the Draft Aboriginal Cultural Assessment that was written with SMEC Engineering.***

***All documents and correspondence relating to the cultural and environmental assessment should be summoned to the Parliamentary inquiry so there can be full transparency surrounding the project and the level of assessment that has occurred to date.***

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<sup>5</sup> <https://www.canberratimes.com.au/story/6302218/nsw-dam-report-a-kick-in-the-gutselders/?cs=14231>

<sup>6</sup> <https://www.bluemountainsgazette.com.au/story/6335258/we-deserve-so-much-better/>

<sup>7</sup> <https://www.theguardian.com/australia-news/2018/mar/25/warragamba-dam-wall-plan-would-flood-50-aboriginal-heritage-sites>

<sup>8</sup> [https://www.iucn.org/sites/dev/files/import/downloads/iucn\\_advice\\_note\\_environmental\\_assessment\\_18\\_1\\_13\\_iucn\\_template.pdf](https://www.iucn.org/sites/dev/files/import/downloads/iucn_advice_note_environmental_assessment_18_1_13_iucn_template.pdf)

<sup>9</sup> [https://www.icomos.org/world\\_heritage/HIA\\_20110201.pdf](https://www.icomos.org/world_heritage/HIA_20110201.pdf)

#### **4. The impact of the project on the Greater Blue Mountains World Heritage Area and its listing**

Documents obtained from the Federal Department of Environment and Energy state that the “impact of increased flood water levels within the dam are likely to have extensive and significant impacts on listed threatened species and communities and world and national heritage values of the Greater Blue Mountains World Heritage Area (GBMWhA)” (Appendix B).

Furthermore, the areas to be inundated within the GBMWhA contain a disproportionate representation of the GBMWhA’s biodiversity, representing critical habitat to nearly 50% of woodland fauna in this region (Appendix C). The area has been labelled by eminent ecologists as a “secret biodiversity wonderland...’Sydney’s Jurassic Park’<sup>10</sup>.”

The UNESCO World Heritage Committee passed a resolution at its 2019 meeting in Baku which stated that “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 (OUV) of the property” (Appendix D).

The NSW and Federal Government’s jointly appointed Greater Blue Mountains World Heritage Area Advisory Committee has stated that it “considers that the proposal will have significant adverse impacts on biodiversity, siltation and weed dispersal, wilderness and wild river values, Aboriginal cultural heritage values, aesthetic values and management access” (Appendix E).

The NSW Government Non-Aboriginal Heritage Impact Assessment (Appendix H) that states the that “The Project would result in an overall high direct (physical) impact to the WHL Greater Blue Mountains Area.”

The Australian Committee for the UNESCO advisory body of ICOMOS (The International Commission on Monuments and Sites) has stated in a letter to the Federal and State Environment Ministers that “the proposed raising of the Warragamba Dam wall has potential to affect the integrity of the GBMWhA and therefore to impact adversely upon the Outstanding Universal Value of this World Heritage property” (Appendix F).

***We submit that the committee summon all draft environmental assessment documentation to examine the quality of the assessment to determine if it is to the standard to the IUCN World Heritage Assessment Guidelines.***

***We further submit that the committee assess how this project will impact upon the UNESCO listing of the GBMWhA.***

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<sup>10</sup> <https://www.sbs.com.au/news/wonderland-at-risk-from-higher-dam-walls>

## 5. Misleading upstream inundation levels

Infrastructure NSW has made erroneous claims about the extent of inundation in areas upstream of the dam wall that would be impacted. These include:

- Stating on their website that there will only be 550 hectares of world heritage land inundated upstream during a flooding event.<sup>11</sup>
- Stating in a public release that “parts of the national park currently flood during large weather events but when the wall is raised, they may be flooded for a longer period - up to two weeks.<sup>12</sup>”
- Stating in a public release that “in large floods, areas within the national park and world heritage area upstream of Warragamba Dam flood now. With flood mitigation, upstream areas may be temporarily flooded for a longer period, such as days, to one or two weeks. The extent of this increase in temporary inundation will depend on the size of the flood.<sup>13</sup>”

Such claims are intended to mislead the public about the true nature of the upstream environmental and cultural impact.

Based on its published flood heights, the WaterNSW Preliminary EIS on the dam wall raising contends there will be over 4,000 hectares flooded (Appendix G). This document also states that upstream inundation events will last for up to five weeks.

Attached in Appendix (G) are two maps that show differing levels of inundation of the proposed dam heightening and associated impact levels published by the NSW Government, as well as a document stating the Possible Maximum Flood for the current dam.

The NSW Government’s Non-Aboriginal Heritage Impact Assessment details the extent of damage the proposed raising of Warragamba Dam wall would have on the site (Appendix H). The document outlines that 1,303ha of bush that sits within the GBMWA will be inundated, with 5,7274ha of bush in the national park also set for flooding. The impacted area within the World Heritage site holds the highest significance to the biodiversity of the area. Appendix (H) further states “the proposed action would result in permanent changes within around 1,303 hectares of the Greater Blue Mountains Area, which constitutes around 0.12% of the World (and National) Heritage Property.”

***We submit that the inquiry investigates the claims made by the NSW Government on upstream impacts associated with raising Warragamba Dam wall, and the nature and extent of inundation of upstream natural areas.***

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<sup>11</sup> <https://www.waternsw.com.au/projects/greater-sydney/warragamba-dam-raising/facts>

<sup>12</sup> <https://www.sbs.com.au/news/unesco-worried-about-warragamba-dam-wall>

<sup>13</sup> <https://www.wollondillyadvertiser.com.au/story/5633388/rare-bird-found-in-the-burrangorang-valley/>

## **6. The NSW State Emergency Services involvement with the project**

The NSW State Emergency Service (SES) has a legislated role as the main combat agency for flood events in the state. This is outlined in the State Emergency Service Act, 1987 and reiterated through regulatory texts such as the State Emergency Management Plan. However, the SES undertakes a preventive role regarding flooding in the state. It is actively involved in providing information concerning best practice floodplain management and land use planning. Specifically, its role is “to work with land use planning and consent authorities to advocate that the risks arising from flood, storm and tsunami are considered so as to prevent the creation of intolerable impacts of these hazards on the community”<sup>14</sup>.

Its support for that the Hawkesbury-Nepean Flood Management Strategy is inconsistent with its preventative role. Given the Strategy plans to double the existing floodplain population over the next thirty years, there will be a twofold increase in evacuation requirements. Even without population growth, flood evacuation already represents an extremely difficult undertaking if there were to be a major flood on the Hawkesbury-Nepean Floodplain.

The NSW Government’s Infrastructure NSW Flood Strategy has offloaded the responsibility for the consequences of floods to the SES, a voluntary organisation, and the public. It has ignored the past warnings of SES executives and associates who have published numerous papers warning of the dangers of urban development on Hawkesbury-Nepean floodplains. A 2017 report co-authored by Peter Cinque, the former Sydney Western Region Controller and current Principal Advisor of the Hawkesbury Nepean Strategy of the NSW SES, stated that raising Warragamba Dam wall “cannot completely eliminate the risk [to life and property]...flooding will still occur despite this flood mitigation.”<sup>15</sup>

*“[An] erosion of the volunteer base means there simply wasn’t the resources to monitor flood levels, warn the public, and attend to all the time-critical rescues that arose”<sup>16</sup>*

**Stephen Yeo (2015), Lessons from the April 2015 Dungog Flood, Australian Institute for Disaster Resilience**

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<sup>14</sup> <https://www.emergency.nsw.gov.au/Documents/plans/sub-plans/SubPlan-Flood.pdf>

<sup>15</sup> Peter Cinque & C. Parmenter (2017) Challenges and Mitigation- the Inevitable Hawkesbury-Nepean Flood, AFAC17 Conference Paper, p.6

<sup>16</sup> <https://knowledge.aidr.org.au/resources/ajem-oct-2015-lessons-from-the-april-2015-dungog-flood/>



*“With the increase in population living in flood prone areas, and very little increase in volunteer numbers over the years, it is likely that the residual risk has increased.... the NSW SES and other emergency service agencies will be required to prepare for, respond to and recover from emergencies involving more people at risk from flooding<sup>17</sup>”*

**Marcus Morgan & Melanie Howard (2015), Floodplain Management Association National Conference, NSW SES**

The magnitude of the evacuation task has grown in the Hawkesbury-Nepean Valley since the last major flood in 1990. Housing and industry in flood prone sectors have been amplified with very little evacuation infrastructure put in place to accommodate growth since 2003. Evacuation is a slow process. Given the problems of congestion faced on key roads in western Sydney, and the large numbers of vehicles expected to take part in an evacuation during a flood, there now exists circumstances that threaten a disaster.

The NSW Government should assess and future proof the Hawkesbury-Nepean Valley from flooding where possible. For example, it’s clear there is a need “to improve roads in the floodplain to allow evacuation in case of an emergency –[which] has been over-run by time and development...One study says 22,000 people may not be able to get out in a flood because roads would be clogged”<sup>18</sup>. Steve Opper of the NSW SES has said “if we just apply all of our [present] arrangements we currently wouldn't be able to get people out”<sup>19</sup>.

The SES has historically been opposed to actions which will place more people in harm’s way on floodplains, but we are concerned that its position has now changed. In recent years the Insurance Australia Group (NRMA) have provided the SES with funding for the SES ‘Get Ready’ program. In 2019 ‘Get Ready for Flood’ campaign videos were distributed across western Sydney by the SES. Intentionally or not, these videos fuelled the fears of those living on the floodplain. It is our view that these videos have misrepresented catchment contributions of flooding in the valley by overplaying the relative contribution from the Warragamba River and therefore unjustifiably supporting arguments for raising the Warragamba Dam wall<sup>20</sup>.

Apparent support from the SES for the Hawkesbury-Nepean Flood Management Strategy contradicts its historic concerns for floodplain residents, its volunteers and staff.

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<sup>17</sup> Marcus Morgan & Melanie Howard (2015) The Consent Authority and the Combat Agency Relationship Revisited- Has Anything Changed?, Paper presented on behalf of NSW SES at the 2015 Floodplain Management Association National Conference

<sup>18</sup> <https://www.smh.com.au/environment/sustainability/when-sydneys-rivers-run-high-20130201-2dpyq.html>

<sup>19</sup> Jacob Saulwick (2013) When Sydney’s Rivers Run High, Sydney Morning Herald  
<http://bit.ly/2lGOxK5>

<sup>20</sup> <https://www.ses.nsw.gov.au/hawkesbury-nepean-floods>

***We submit that the committee asks the Acting Commissioner of the NSW SES, Kyle Stewart, to state his support or otherwise for the addition of 134,000 people onto the Hawkesbury-Nepean floodplain.***

***We further submit that the committee investigate the financial nature of the partnership between NSW SES and NRMA Insurance.***

## **7. Lack new of evacuation routes**

The key evacuation routes in flood-prone areas of western Sydney currently cannot support the evacuation requirements for a 1:500-year flood<sup>21</sup>. Nearly all evacuation routes are cut off in much smaller floods and by the effect of localized flash flooding.

*“Studies found that if no action were to be taken to upgrade existing evacuation routes from their condition in 1997 and local flooding occurred, the majority of the flood prone population, estimated then to be between 40,000 and 60,000 persons, would be without a means of escape from isolated areas surrounded by water. Unless rescued, these persons would be expected to drown if flooding levels occur that inundate the islands.”<sup>22</sup>*

### **Hawkesbury-Nepean Floodplain Management Steering Committee, 2007**

The 2007 study undertaken by the Hawkesbury-Nepean Floodplain Management Steering Committee, which included contributions from the Department of Natural Resources, NSW SES, Molino Stewart and Bewsher Consultants outlined the risk posed to those living on the floodplain due to the difficulty of evacuation.

*“The Hawkesbury-Nepean valley already contains sizeable towns with growing populations that will need to be evacuated in the limited time available before evacuation routes become inundated by rapidly rising floodwater. It is critical that any factor of safety currently available to the SES is not eroded by new development, which would significantly increase the numbers of people needing to be evacuated from these flood islands.”<sup>23</sup>*

### **Hawkesbury-Nepean Floodplain Management Steering Committee, 2007**

The Hawkesbury-Nepean Valley Flood Risk Management Strategy implies that raising the dam wall would safely allow the settlement of an additional 134,000 more residents onto the floodplain. As we have explained in section 2 (above), this argument is incorrect. But in any event the doubling of the floodplain population would double the amount of people requiring evacuation. Without an overhaul of flood evacuation routes the task of evacuation around 268,000 people would prove insurmountable for the NSW SES.

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<sup>21</sup> NSW SES (2015) Hawkesbury-Nepean Valley: NSW SES Flood Evacuation Routes, Traffic and Transport Arrangements, Chapter 4 of Volume 3 (NSW SES Response Arrangements) of the Hawkesbury Nepean Flood Plan, p.15, <http://bit.ly/2m7yjdz>

<sup>22</sup>Hawkesbury-Nepean Floodplain Management Steering Committee (2007) Managing Flood Risk Through Planning Opportunities <http://bit.ly/2IBQY0I>

<sup>23</sup>Ibid, p.41

The SES has developed a detailed algorithm which outlines the complexity of evacuation.<sup>24</sup> The more people, vehicles and properties involved, the higher the probability that errors and mishaps will occur. NSW SES representative Peter Cinque claimed at the Inquiry into Water NSW Amendment (Warragamba Dam) Bill 2018, that additional urban development on the floodplain will make it difficult and extremely dangerous to evacuate residents. He said; “it would be our preference as far as possible to not evacuate people as it is a huge obstruction to the community and to the economy...as the evacuation problem increases, the complexity will increase and will be harder to execute.”<sup>25</sup>

Former Deputy Director General of the NSW SES, Chas Keys, has written that “the evacuation route problem – roads out of floodplains being cut by flood waters, leaving people trapped and in danger...is a serious one in NSW”<sup>26</sup>. A report presented by Chas Keys (on behalf of the NSW SES) at a floodplain management conference outlined this issue stating that “intensified development on floodplains could do harm to our management of these areas and at the same time create an increase in society’s exposure to flood damage - the very thing which floodplain management seeks to avoid.”<sup>27</sup>

***We submit that the inquiry investigate the alternative of evacuation route construction across western Sydney to ensure the safe evacuation of residences in times of floods, and ease of transport in dry times.***

***We submit that the inquiry also asks the NSW SES how they plan to evacuate the additional 134,000 people which the NSW Government plans to house on the floodplain.***

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<sup>24</sup>Steven Molino, T.Morrison, M. Howard & Steve Opper (2013), A Technical Guideline for the Use of the SES Timeline Evacuation Model In Flood Evacuation Planning, Molino Stewart & NSW SES  
<http://bit.ly/2kv3XRu>

<sup>25</sup> Inquiry into Water NSW Amendment. (Warragamba Dam) Bill 2018

<sup>26</sup> Chas Keys et al., (2003) Ensuring that Emergency Management Imperatives are met in the Floodplain Risk Management Process: A View from North of the Murray, Presented at the 3<sup>rd</sup> Victorian Flood Management Conference Horsham, p.5  
<http://bit.ly/2Zrky7l>

<sup>27</sup> Chas Keys (1997) Learning about Floods: A State Emergency Service Perspective, Presented at the 37<sup>th</sup> Annual Conference of the Floodplain Management Authorities of NSW, Maitland, p.8  
<http://bit.ly/2KUunto>

## **8. The support of the insurance industry**

The insurance industry has been a key proponent of the proposal to raise Warragamba Dam before the project's announcement. The Insurance Council of Australia (ICA), the peak body representing 95% of Australian insurance companies, have made claims about the possibility of reduced insurance premiums if the dam wall is raised.

For the insurance industry, the utility of this flood mitigation measure arises from its effectiveness at stopping smaller flood events. Most flood related claims throughout the Hawkesbury-Nepean Valley are associated with smaller flood events. The risk posed by larger floods, such as the 1:250 to the PMF, remaining essentially the same even in the case of raised dam.

Whilst saving insurance companies some money on claims, the dam wall raising proposal would open a significant market of potential new customers in the Hawkesbury-Nepean Valley. An added 134,000 people paying high premiums for flood insurance would be extremely profitable for insurance companies. This will come at the cost of their customers, lulled into a false sense of security regarding their exposure to floods.

Recent history suggests that properties built on a floodplain said to be 'protected' by a mitigation dam will not be saved from flooding. Both the Brisbane floods of 2011 and Townsville floods of 2019 provide ample evidence. Moreover, insurance pay-outs in such situations cannot be guaranteed. From the 1980s in Brisbane, for example, "assurances about immunity provided by Wivenhoe Dam abounded, encouraging riverside development"<sup>28</sup>. Residents took out insurance policies on at-risk floodplains as they were assured by developers and local government that they were safe. However, just as in the case of the Warragamba catchment, "only fifty per cent of the Brisbane River catchment is regulated by dams that have a finite floodwater storage capacity"<sup>29</sup>. In the aftermath of the 2011 flood, disputes over definitions and terminology of flooding slowed claims for insurance pay-outs worth billions of dollars in damages and caused widely reported community outrage. A major insurer on the Brisbane floodplains was the Insurance Australia Group (NRMA & CGU branded insurance).

***We submit that the inquiry asks both the CEO of Insurance Council of Australia and the CEO of the Insurance Australia Group if they support the addition of 134,000 more houses onto the floodplain.***

***We submit that the inquiry also asks both CEOs the exact amount they would reduce insurance premiums by if they were to raise the dam wall by 14 metres.***

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<sup>28</sup> Margaret Cook (2018) "It Will Never Happen Again": The Myth of Flood Immunity in Brisbane, *Journal of Australian Studies*, 42:3, p.340

<sup>29</sup> *Ibid.*, p. 337

## **9. Links between floodplain developers and the NSW Liberal Party**

The links between developers and the proposal to raise Warragamba dam is another important area which should be examined by this inquiry.

\_\_\_\_\_ is a major donor of the NSW branch of the Liberal Party (\$550,000 between 2014 and 2017). \_\_\_\_\_ had significant investments on floodplain land and property in western Sydney. In the same year that his company (Waratah Group) contributed \$300,000 to the Liberal Party, the NSW Government announced that it would raise Warragamba Dam wall. In 2014 the Waratah Group had bought property in Marsden Park entirely 'classified as flood-prone land with parts in the one- in-100-year flood zone'<sup>30</sup> for \$45 million. Six months following the announcement of the plan to raise the dam wall the property was sold for \$138.8 million. All above information relating to \_\_\_\_\_ land and donations can be found in Appendix (I).

\_\_\_\_\_, the sole owner, Director and Secretary of the private company 'The Winten Property Group', is another major donor (\$20,000) to the Liberal Party who has significant floodplain holdings. All information relating to \_\_\_\_\_ land and donation can be found in Appendix (J).

The Lynnwood Country Club is another major property owner on the floodplain which has an interest in raising the dam wall, with significant portions of its land under the 1:100-year flood level. Lynnwood wish to utilise much of their land for urban development. A previous director of Lynnwood Country Club is the current NSW Minister and member for Castle Hill, \_\_\_\_\_. He has been a major political supporter of the dam wall project.

Stuart Ayres, the member for Penrith and current Minister for Western Sydney has played a significant role in the proposal to raise Warragamba Dam wall. A controversial development project in his electorate, the Penrith Lakes Development, has faced obstacles to the construction of residential properties on its land for decades due to flood risk. Much of the land falls below the 1:100-year flood level. Mr Ayres appeared at Penrith Lakes on Channel 9 News on the 4<sup>th</sup> of December 2014, stating that "as far as your eye can see...that's the urban developable land"<sup>31</sup>. This claim was recorded as he stood next to a flood marker situated on a cleared grassy area.

***We submit that the committee investigate the developer interest surrounding this project in the Hawkesbury-Nepean Valley, and ask relevant MPs and developers to give evidence as to their interests in floodplain development.***

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<sup>30</sup> <https://www.sbs.com.au/nitv/nitv-news/article/2019/02/06/raising-nsw-dam-wall-good-floodplain-developers>

<sup>31</sup> <https://www.youtube.com/watch?v=P2nvRU8XFyc>

## **10. Providing additional airspace using the current dam capacity**

An alternative to raising Warragamba Dam wall is to use part of the dam's existing capacity to provide flood mitigation airspace. Such an approach would require the provision of alternative sources of potable water for greater Sydney.

Find attached a paper by A. Turner et al. which details the costing and viability of such a scheme (Appendix K).

The researchers found that the cost of raising the dam wall was comparable with undertaking such a scheme. We stress that such an alternative should be considered in combination with other floodplain management measures.

A flood mitigation airspace strategy would be supported by improved capacity for the long-term meteorological prediction of rainfall events in Warragamba catchment. Attached is a paper by Kiem et.al of the University of Newcastle which discusses the cyclical nature of flood events in eastern Australia (Appendix L).

***We submit that the committee examine alternative flood mitigation options using the existing capacity of Warragamba Dam.***

## **11. Comments on the cost benefit analysis**

The full cost benefit analysis (CBA) of the project has not been released. None of the modelling that informed the Hawkesbury-Nepean Flood Risk Management Strategy's CBA is publicly available.

We are aware that the use of new evacuation routes during dry periods was not factored into the CBA.

We are also aware that environmental offset costs associated with raising Warragamba Dam wall were not factored into the CBA.

***We submit that the committee make the CBA and environmental offset cost of the project publicly available.***

***We submit that the committee discover why the above-mentioned inputs were not calculated as part of the CBA.***

## **12. Confusion about the purpose of the project**

During the Sky News televised debate for the 2019 NSW election, Premier Gladys Berejiklian stated that the additional airspace created by raising Warragamba Dam wall would be used to increase water storage capacity for Sydney<sup>32</sup>. This is in direct contradiction to the position otherwise stated by agencies such as Infrastructure NSW<sup>33</sup> and WaterNSW<sup>34</sup>.

***We submit that the committee clarify these comments.***

On behalf of the Colong Foundation for Wilderness, we like to thank the committee for the opportunity to make this submission.

Yours sincerely,

Harry Burkitt

## **Appendices page references**

**Appendix AA** – Letter from scientists to Premier on Warragamba Dam Bill (2018) - **page 15**

**Appendix A** – Leaked flood hydrographs - **page 21**

**Appendix B** – Department of Energy and Environment FOI - **page 22**

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<sup>32</sup> <https://www.youtube.com/watch?v=fNeFzr9fhLc>

<sup>33</sup> <http://www.infrastructure.nsw.gov.au/media/1723/warragamba-dam-raising.pdf>

<sup>34</sup> [https://www.watnsw.com.au/\\_data/assets/pdf\\_file/0008/130499/FAQS\\_February2018.pdf](https://www.watnsw.com.au/_data/assets/pdf_file/0008/130499/FAQS_February2018.pdf)