

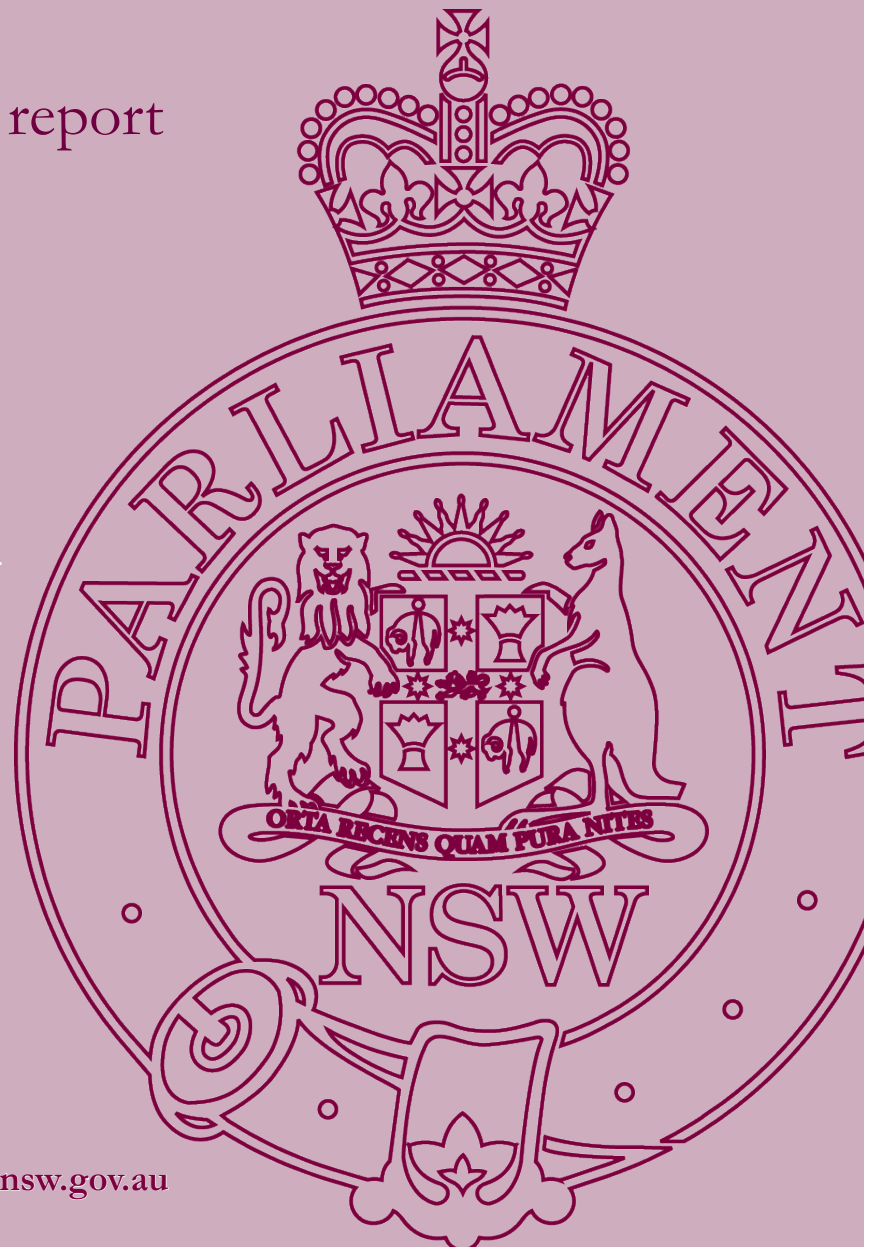


LEGISLATIVE COUNCIL

SELECT COMMITTEE ON THE PROPOSAL TO RAISE THE
WARRAGAMBA DAM WALL

Proposal to raise the Warragamba Dam wall

Interim report



October 2021

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Select Committee on the Proposal to Raise the Warragamba
Dam Wall

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Terms of reference

That a select committee be established to inquire into and report on the NSW Government's proposal to raise the Warragamba Dam wall, and in particular:

- (a) conflicting reports on the planning height for the dam wall raising and the potential use of the raising for additional storage capacity as well as flood mitigation,
- (b) plans for future property development on flood prone land on the Hawkesbury Nepean Floodplain,
- (c) engagement between the NSW Government and the World Heritage Committee of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in relation to the project,
- (d) the adequacy of the Environmental Impact Assessment process to date, including the assessment of impacts on:
 - (i) World Heritage,
 - (ii) Aboriginal Cultural Heritage,
 - (iii) ecological values of the Greater Blue Mountains National Park,
 - (iv) the Warragamba community,
 - (v) communities on the Hawkesbury Nepean Floodplain,
- (e) the nature and extent of the examination of alternative options for flood management that formed the basis of the Cost Benefit Analysis of the project and the 'Resilient Valley, Resilient Communities' strategy,
- (f) the flood risk assessment and proposed flood management of the Hawkesbury-Nepean Valley and whether this meets international best practice standards,
- (g) the estimated cost of the project and identified funding sources,
- (h) the implementation of recommendations in the inquiry into the Water NSW Amendment (Warragamba Dam) Bill 2018 by the Standing Committee on State Development in October 2018, and
- (i) any other related matter.

The terms of reference for the inquiry were referred to the committee by the Legislative Council on 20 June 2019.¹

¹ *Minutes*, NSW Legislative Council, 20 June 2019, pp 255-267.

Committee details

Committee members

Mr Justin Field MLC	Independent	<i>Chair</i>
Hon Rod Roberts MLC	Pauline Hanson's One Nation	<i>Deputy Chair</i>
Hon Wes Fang MLC*	The Nationals	
Hon Shayne Mallard MLC	Liberal Party	
Hon Taylor Martin MLC	Liberal Party	
Hon Adam Searle MLC	Australian Labor Party	
Hon Penny Sharpe MLC	Australian Labor Party	

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*The Hon Wes Fang MLC substituted for the Hon Trevor Khan MLC on 22 October 2019 for the duration of the inquiry.

Chair's foreword

I am pleased to present this interim report of the Select Committee on the Proposal to Raise the Warragamba Dam Wall.

The March 2021 flood event in the Hawkesbury Nepean Valley highlighted the substantial flood risk in the valley and the importance of flood risk planning and management to limit the impact of flooding on lives and property.

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.

At its peak, the volume of water that flowed over the Warragamba Dam during that event was enough to fill the airspace that would be created by a 14 metre dam wall raising in just two days. This demonstrates that major upstream impacts would be inevitable should the project proceed, even from events assessed as a 1 in 10 to 1 in 20 chance per year event.

In that regard, the focus of the NSW Government should be directed to those flood risk mitigation options that can maximise flood risk mitigation while minimising upstream impacts. The evidence heard by the Committee casts significant doubt over whether raising the Warragamba Dam wall can achieve those objectives.

It is encouraging that this report has unanimous support from both Government and non-government members.

The committee heard from a wide range of stakeholders, including from the insurance industry, the Committee for Sydney, and emergency services experts of the need to more fully consider alternatives for flood mitigation and has recommended a round table be established to begin this work.

The report recommends more consideration of alternatives to a dam wall raising, including lowering the full supply level of the existing dam, improved evacuation routes, and moving people off flood prone land, including consideration of buybacks.

It is unequivocal that the project will have significant, if not devastating, impacts on upstream biodiversity, including on critically endangered species like the Regent Honeyeater and pristine wild rivers like the Kowmung. The 2019/20 fires have only heightened the risks of impacts from temporary inundation that the dam wall raising will cause. It is deeply concerning that additional field work had not been done to update environment assessments to take into account fire impacts and the committee has recommended this occur.

The committee was also concerned about the secrecy of the Government around questions regarding the

biodiversity assessment process and proposed offsets. The committee has recommended that all biodiversity impacts from temporary inundation be assessed for the purposes of determining required biodiversity offsets.

Despite this, it is inconceivable to me, and I suspect many members of the public, how critically endangered species, World Heritage listed areas and wild rivers can be suitably offset by a credit trading system.

Importantly the report recognises that should the project not be able to maintain or improve the current and future integrity of the Greater Blue Mountains World Heritage Area, the Government should pursue alternatives. This is the clear expectation of the published Strategic Plan for the World Heritage Area. The evidence seen and heard by the committee, including from State and Commonwealth agencies, suggests the dam wall raising will have significant negative impacts on the integrity of the World Heritage Area and its values.

The inquiry also received significant evidence about the impact the proposal will have on Aboriginal Cultural Heritage, including on sites that are part of the creation story of the Gundungurra People. Aboriginal stakeholders expressed frustration and even anger about the adequacy of the Aboriginal Cultural Heritage Assessment process including site assessments.

The committee recommends that the project not proceed without free, prior and informed consent by Registered Aboriginal Parties.

The inquiry was established to inquire into a wide range of issues relating to the NSW Government's Proposal to Raise the Warragamba Dam Wall as outlined in the Committee's Terms of Reference. During the conduct of initial hearings it became clear that Government witnesses intended to deflect many of the questions asked by indicating that questions would be addressed in the final Environmental Impact Statement (EIS) when published.

When the inquiry was established on 20 June 2019, it was understood that the EIS was close to completion at that time. The NSW Government placed the final EIS on public exhibition on 29 September 2021, the day before this committee was due to meet to consider this interim report.

The committee had decided to complete an interim report following the substantial leaks of State and Federal agency criticisms of aspects of the draft EIS, including inadequacies in the 'on the ground' field work to assess the impacts that raising the dam wall would have on environmental, world heritage and Aboriginal cultural heritage values as well as post 2019/20 fire impacts.

The March 2021 flood event in the Hawkesbury Nepean was considered by the committee as a case study to better understand the flood risks in the valley as well as opportunities and limitations of the proposal. This report largely deals with those official agency criticisms and the flood mitigation capacity of the proposal with regard to the March 2021 flood.

I thank those who contributed to the hearings following months of flood clean-up and assisting impacted residents and acknowledge the impact the floods had on many residents and businesses.

The other terms of reference and a detailed consideration of the final EIS will be dealt with in a final report.

On behalf of the Committee, I acknowledge that many people made very detailed and substantive submissions to this inquiry back in the second half of 2019. Only some of the issues raised in those submissions have been dealt with in public hearings to date. It is the intent of the committee to hold more hearings to delve into the full breadth of the terms of reference now the final EIS is published. The committee thanks very much those witnesses who have given evidence to date and especially those who have given their time during site visits.

I acknowledge the contribution of all members of the committee who have engaged constructively in this inquiry to date. I would also like to thank the secretariat staff for their ongoing work in supporting what has become a far longer inquiry process than was originally anticipated.



Mr Justin Field MLC
Committee Chair

Recommendations

- Recommendation 1** **7**
That the NSW Government improve transparency around the development of the EIS process for the Warragamba Dam wall raising project, including for future documents generated as part of the consideration of this project such as the Final Business Case, on the basis of there being a clear public interest in favour of disclosure under the *NSW Government Information (Public Access) Act 2009*.
- Recommendation 2** **17**
That the NSW Government urgently develop, together with local councils, a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of Western Sydney. This should include both funding and clear timeframes for the upgrade of roads necessary to give effect to the plan.
- Recommendation 3** **18**
That the NSW Government convene a roundtable of stakeholders to inform a more detailed options assessment as part of the final Environmental Impact Statement and Business Case for the project.
- Recommendation 4** **18**
That the NSW Government implement flood mitigation strategies and planning policies to reduce the number of people, homes and businesses at risk from future catastrophic flooding in the Hawkesbury Nepean Floodplain.
- Recommendation 5** **18**
That the NSW Government provide detailed alternative options analysis in the final Environmental Impact Statement and Final Business Case for feasible alternatives, including but not limited to lowering the full supply level of the existing Warragamba Dam, voluntary acquisition of the most vulnerable properties, upgrading evacuation roads and restricting future development on flood prone land.
- Recommendation 6** **26**
That the NSW Government ensures the final assessment fully complies with the IUCN World Heritage Assessment Guidelines.
- Recommendation 7** **26**
That the NSW Government require Water NSW to undertake post-fire field assessments to address the concerns raised by the Commonwealth Department of Agriculture, Water and Environment and the NSW National Parks and Wildlife Service in regards to the consistency of the World Heritage Impact Assessment before the Environmental Impact Statement is completed and provided to the World Heritage Centre.
- Recommendation 8** **26**
That the NSW Government make clear in the final EIS that goes out for public exhibition, how the concerns raised by the Commonwealth Department of Agriculture, Water and Environment and the NSW National Parks and Wildlife Service in regards to the consistency of the World Heritage Impact Assessment have been addressed in terms of additional assessments or modifications to the proposal.

- Recommendation 9** 27
- That the NSW Government:
- not proceed with the Warragamba Dam wall raising project, if the proposal cannot maintain or improve the current and future integrity of the Greater Blue Mountains World Heritage Area, and
 - pursue alternative floodplain management strategies instead.
- Recommendation 10** 27
- That the NSW Government provide a final Environmental Impact Statement to the World Heritage Centre in a timely fashion so as to be able to make public any feedback by the World Heritage Committee on the proposal before a planning determination is made.
- Recommendation 11** 39
- That the NSW Government not proceed with the Warragamba Dam wall raising project should Registered Aboriginal Parties not give free, prior and informed consent for the project to proceed, as required in advice provided to the NSW Government by the Commonwealth Department of Agriculture, Water and Environment.
- Recommendation 12** 40
- That Water NSW conduct further Aboriginal Cultural Heritage Assessment, including additional field surveys, to address the concerns raised by stakeholders and agencies, particularly in relation to the adequacy of field surveys, and post fire assessment, as well as demonstrating the agreement of RAPs in the significance assessment of sites, and the need for a broader cultural impact assessment of the project.
- Recommendation 13** 40
- That the NSW Government, in the final Environmental Impact Statement, clearly demonstrate how the Aboriginal Cultural Heritage Assessment for the Warragamba Dam wall raising project complies with all current guidelines identified in the SEARs, including the:
- Burra Charter
 - Gundungurra Indigenous Land Use Agreement
 - Office of Environment and Heritage's Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (2011)
 - Department of Environment, Climate Change and Water NSW's Aboriginal Cultural Heritage Consultation requirements for proponents (2010).
- Recommendation 14** 48
- That the final Environmental Impact Statement assess the impacts to biodiversity, as a result of temporary inundation, for the purposes of biodiversity offsets.
- Recommendation 15** 49
- That the NSW Government implement all recommendations from the Commonwealth Department of Agriculture, Water and Environment and NSW National Parks and Wildlife Service regarding to the biodiversity impact assessment and offsetting requirements for the project, including the need for further on-ground assessments.

Recommendation 16

49

That Water NSW conduct additional on-ground field surveys to evaluate the impact of the 2019/2020 fires on the impact assessment of the Warragamba Dam wall raising project on biodiversity and the broader protected area values.

Conduct of inquiry

The terms of reference for the inquiry were referred to the committee by the Legislative Council on 20 June 2019.

The committee received 386 submissions, two supplementary submissions and two pro forma submissions.

The committee held five public hearings: four at Parliament House in Sydney and one in Windsor.

The committee also conducted three site visits: two to the Blue Mountains and one to the Hawkesbury-Nepean Valley floodplain.

Inquiry related documents are available on the committee's website, including submissions, hearing transcripts, tabled documents and answers to questions on notice.

Preamble

This report was drafted before the release of the Environmental Impact Assessment (EIS) on 29 September 2021 by WaterNSW.

The committee will present further conclusions and recommendations on the EIS and other elements of the inquiry's terms of reference in its final report.

The report is primarily concerned with the adequacy of the Environmental Impact Assessment (EIS) to date and draws heavily on leaked reporting of official agency comments and recommendations relating to the draft EIS that were made from the middle of 2020.

The report provides a separate chapter for the first three elements of terms of reference d) of the inquiry relating to the adequacy of the EIS, namely, the World Heritage, Aboriginal Cultural Heritage, and the biodiversity values of the Blue Mountains National Park.

The report also considers evidence relating to the March 2021 flood event in the Hawkesbury-Nepean and calls for alternative flood mitigation options to be considered.

Chapter 1 Background

This chapter provides an overview of a number of events that have occurred relating to Warragamba Dam since 2018. These events include the introduction of new legislation, previous Legislative Council Committee inquiries and key developments since August 2019.

Events leading to the establishment of current inquiry

1.1 The following section outlines a number of events since 2017 in relation to Warragamba Dam that culminated in the establishment of this current inquiry by the Select Committee.

Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy

1.2 In 2017, the Hawkesbury-Nepean Valley Flood Risk Management Strategy was released as a comprehensive long-term framework to reduce and manage flood risk in the Hawkesbury-Nepean Valley in response to an investigation conducted by an independently chaired, inter-agency group taskforce known as the Hawkesbury-Nepean Valley Flood Management Taskforce.²

1.3 As part of this strategy, Infrastructure NSW is overseeing the whole-of-government implementation of nine key outcomes designed to:

- Protect people's lives, assets and social amenity as a priority
- Share responsibility for flood risk management between all levels of government, communities, individuals and business
- Fulfil the National Strategy for Disaster Resilience roles.³

1.4 Of the nine key outcomes, Outcome 2 relates to reducing flood risk in the Valley by raising the Warragamba Dam wall for flood mitigation, including the preparation of an Environment Impact Statement, and the submission of a final business case to the NSW Government by 2020.⁴

1.5 In December 2016, a Preliminary Environment Assessment was completed by Water NSW⁵ followed by the issuing of the Secretary's Environmental Assessment Requirements (SEARs)

² Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, pp 1-2.

³ Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, pp 33-34; Evidence, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, 28 August 2020, p 2.

⁴ Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, p 35.

⁵ Water NSW, Warragamba Dam Raising, Preliminary Environment Assessment, December 2016, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachmentRef=PDA-406%2120190313T023052.810%20GMT>

on 30 June 2017 by the NSW Department of Planning and Environment.⁶ On 13 March 2018 the SEARs was reissued.⁷

- 1.6 The SEARs require Water NSW to prepare an Environmental Impact Statement (EIS) that assesses environmental impacts, including but not limited to impacts on Aboriginal and non-Aboriginal heritage, biodiversity, local amenity, and matters of national environmental significance, including world heritage and threatened species and communities.⁸ The specific SEARs related to each chapter of this report are outlined in that chapter.

Water NSW Amendment (Warragamba Dam) Act 2018

- 1.7 The Water NSW Amendment (Warragamba Dam) Bill 2018 was introduced into the Legislative Council on 19 September 2018 by former Minister for Primary Industries, Regional Water, Trade and Industry, the Hon Niall Blair MLC.
- 1.8 The bill sought to amend the *Water NSW Act 2014* to make provision with respect to the temporary inundation of national park land resulting from the raising of the wall of Warragamba Dam and the operation of the dam for downstream flood mitigation purposes.⁹
- 1.9 According to the then Minister, the bill was 'not an approval for raising the dam'¹⁰ but rather to 'overcome a "technical barrier" that exists under the *National Parks and Wildlife Act 1974* to the proposal to raise the Warragamba Dam wall'¹¹.
- 1.10 The removal of this technical barrier before the Environmental Impact Statement (EIS) was finalised and planning approvals gained, was to ensure that it would not 'detract from the 'planning and assessment process'.¹²

⁶ NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements, 30 June 2017, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120200629T003105.074%20GMT>

⁷ NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements, 13 March 2018, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120200629T002934.658%20GMT>

⁸ Submission 237, NSW Government, p 16.

⁹ Water NSW Amendment (Warragamba Dam) Bill 2018.

¹⁰ The Hon Niall Blair MLC, Minister for Primary Industries, Regional Water, Trade and Industry Second Reading Speech: Water NSW (Warragamba Dam) Bill 2018, 19 September 2018, p 4.

¹¹ The Hon Niall Blair MLC, Minister for Primary Industries, Regional Water, Trade and Industry Second Reading Speech: Water NSW (Warragamba Dam) Bill 2018, 19 September 2018, p 4 quoted in Standing Committee on State Development, NSW Legislative Council, *Water NSW Amendment (Warragamba Dam) Bill 2018* (2018), p 1.

¹² The Hon Niall Blair MLC, Minister for Primary Industries, Regional Water, Trade and Industry Second Reading Speech: Water NSW (Warragamba Dam) Bill 2018, 19 September 2018, p 4.

- 1.11 On 26 September 2018, the Legislative Council referred the bill to the Standing Committee on State Development to inquire and report on.¹³ See section below for further details on the inquiry process.
- 1.12 On Tuesday 16 October 2018, the bill was considered by the Legislative Council with six amendments moved by the Greens which were all negated on division.
- 1.13 On 17 October 2018, the Legislative Assembly passed the bill without amendment and was assented to on 26 October 2018.
- 1.14 The *Water NSW Amendment (Warragamba Dam) Act 2018* amended the *Water NSW Act 2014* (principal act) by inserting a new Part 5A Special provisions relating to Warragamba Dam, including:
- A definition of the Warragamba Dam project
 - Provisions for the temporary inundation of national park land, including an environmental management plan for temporary inundation of national park land
 - Provisions for the amendment and revocation of environmental management plan
 - Specific powers to the relevant Minister to give directives to Water NSW in relation to the temporary inundation of national park land resulting from the Warragamba Dam project, including action relating to the monitoring of risks associated with the temporary inundation and relating to the rehabilitation or remediation of land.¹⁴

Standing Committee on State Development inquiry into the provisions of the Water NSW Amendment (Warragamba Dam) Bill 2018

- 1.15 As mentioned at 1.11, the provisions of the Water NSW Amendment (Warragamba Dam) Bill 2018 were referred to the Standing Committee on State Development.
- 1.16 The Standing Committee identified several key issues in relation to the bill including: increased development in the Hawkesbury-Nepean Valley as a result of the project, lack of transparency regarding cost benefit analysis of the project, impacts on Aboriginal heritage and the environment, as well as alternative to reduce flood risks without raising the dam wall.¹⁵
- 1.17 The Standing Committee made seven recommendations in total, with three directed to the government for a response as outlined in the following table.¹⁶

¹³ *Hansard*, NSW Legislative Council, 26 September 2018, pp 56-57 and 25 September 2018, p 9.

¹⁴ *Water NSW Act 2014*, Sch 1, Pt 5A.

¹⁵ Standing Committee on State Development, NSW Legislative Council, *Water NSW Amendment (Warragamba Dam) Bill 2018* (2018).

¹⁶ Standing Committee on State Development, NSW Legislative Council, *Water NSW Amendment (Warragamba Dam) Bill 2018* (2018), p vii.

Government response to the Standing Committee on State Development

- 1.18 On 3 July 2019, the NSW Government provided its response to the committee's recommendations contained in the report.

Figure 1 Standing Committee on State Development inquiry into the provisions of the Water NSW Amendment (Warragamba Dam) Bill 2018 Recommendations¹⁷

Recommendation 3
That the NSW Government:

- review the consultation processes incorporated in any planning approvals for the Warragamba Dam project and for the remainder of the Environmental Impact Statement process; and
- and allow for adequate time to conduct survey mapping for Aboriginal heritage in the impacted areas.

Recommendation 4
That, in order to inform the current legislative debate, Infrastructure NSW should now release on a confidential basis to members of the Standing Committee on State Development, the source documents that sit behind the 'Resilient Valley, Resilient Communities' strategy and the Cost Benefit Analysis of the alternative measures that have been examined.

Recommendation 5
That the draft bill be amended to require the draft Environmental Management Plan to be put on public exhibition for 45 days, noting that this is required for any amendment to a Plan of Management under Part 5 of the *National Parks and Wildlife Act*.

- 1.19 The government supported Recommendation 3 stating The NSW Government is committed to comprehensive assessment and consultation processes for the preparation of the Environmental Impact Statement for the Warragamba Dam Raising project. All efforts will be made to complete the process according to best practice.¹⁸
- 1.20 The government also supported Recommendation 4 however, referred the committee to the analysis published in the *Resilient Valley, Resilient Communities: the Hawkesbury-Nepean Valley Flood Risk Management Strategy*.¹⁹
- 1.21 In relation to Recommendation 5, this was noted by the government and advice provided that the Minister administering the *National Parks and Wildlife Act 1974* and the Minister

¹⁷ Standing Committee on State Development, NSW Legislative Council, *Water NSW Amendment (Warragamba Dam) Bill 2018* (2018), p vii.

¹⁸ Correspondence from the Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney to the Clerk of the Parliaments, providing government response to the inquiry into the Water NSW Amendment (Warragamba Dam) Bill 2018, 3 July 2019.

¹⁹ Correspondence from the Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney to the Clerk of the Parliaments, providing government response to the inquiry into the Water NSW Amendment (Warragamba Dam) Bill 2018, 3 July 2019.

administering the *Water NSW Act 2014* had already agreed to put the Environmental Management Plan on exhibition for 45 days.²⁰

Key developments since August 2019

- 1.22** On 21 November 2019 the Legislative Council passed a standing order 52: Order for Papers motion by The Hon Adam Searle, relating to the Warragamba Dam Wall proposal and specifically to documents relating to the business case for the project. Only publicly available documents were provided in the return with the agencies responding that no other documents were held by the relevant departments that are legally required to be provided. This language suggests other documents held were considered to be ‘cabinet in confidence’ and were not required to be provided.
- 1.23** On 27 February 2020, the Legislative Council passed a standing order 52: Order for Papers motion by Mr Justin Field, relating to biodiversity assessments relating primarily to the Warragamba Dam Wall proposal. No documents were provided in the return with the agencies responding that no documents were held by the relevant departments that are legally required to be provided. This language suggests any documents that were held were considered to be ‘cabinet in confidence’ and were not required to be provided.
- 1.24** On 24 November 2020, the Legislative Council passed a standing order 52: Order for Papers motion by The Hon Adam Searle, relating to various meetings and correspondence regarding the Warragamba Dam Wall raising proposal. Some documents were returned as a result of this order for papers.
- 1.25** On 5 August 2020, it was reported in the media that Water NSW wrote to the Department of Agriculture, Water and the Environment 'ask[ing] to vary the proposal so that the overall height of the dam wall would be raised to 17 metres instead of the original 14m'.²¹ It was claimed that the variation to the proposal was approved without the need for 'further environmental assessments ... [as] possible flooding upstream wouldn't increase'.²²
- 1.26** In response to these claims, the Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney, was reported as stating that 'the changes were not substantial and ... it

²⁰ Correspondence from the Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney to the Clerk of the Parliaments, providing government response to the inquiry into the Water NSW Amendment (Warragamba Dam) Bill 2018, 3 July 2019.

²¹ Kathleen Calderwood, 'Water NSW argues against more environmental assessments around Warragamba Dam wall', *ABC News online*, 5 August 2020, <https://www.abc.net.au/news/2020-08-05/water-nsw-amends-warragamba-dam-wall-proposal/12527164>. See also, Dominica Sanda, 'Concern on request for higher NSW dam wall', *7 News online*, 5 August 2020, <https://7news.com.au/news/environment/secret-plan-for-17m-dam-wall-an-insult-c-1217950>

²² Kathleen Calderwood, 'Water NSW argues against more environmental assessments around Warragamba Dam wall', *ABC News online*, 5 August 2020, <https://www.abc.net.au/news/2020-08-05/water-nsw-amends-warragamba-dam-wall-proposal/12527164>.

allowed for "future proofing", adding the costings were not finalised and dependent on the Environmental Impact Statement (EIS) yet to be released'.²³

1.27 A number of other media reports were published relating to both NSW and Commonwealth agency comments on the Draft EIS as part of the consistency review process. These media reports also published the documents from which these comments were drawn, which included:

- 'Warragamba Dam environment plan "not valid", government agency finds', *The Sydney Morning Herald*, 9 August 2020 – (National Parks & Wildlife Service - Warragamba Dam EIS consistency review)
- "'Unacceptable': Federal Department blasts Warragamba Dam wall plan', *The Sydney Morning Herald*, 17 August 2020 – (Department of Agriculture, Water and Environment - Bushfire Impact Analysis/Biodiversity Offset Strategy)
- 'Plans to raise Warragamba Dam wall could see flood destroy Indigenous artefacts, leaked document says', *ABC News*, 12 September 2020 – (Department of Agriculture, Water and Environment - Aboriginal Cultural Heritage Assessment Report)
- 'NSW government ordered to revisit world heritage assessments for Warragamba Dam expansion', *The Guardian Australia*, 18 September 2020 – (Department of Agriculture, Water and Environment - World Heritage Assessment)
- 'EXCLUSIVE: HeritageNSW's scathing review of Warragamba Dam cultural heritage report', *National Indigenous Times*, 11 December 2020 – (Heritage NSW - Warragamba dam summary feedback following EIS meeting).

1.28 The substance of the consistency review documents from NSW National Parks and Wildlife Service (NPWS) and the Commonwealth Department of Agriculture, Water and Environment (DAWE) were addressed by this committee in hearings on 28 August 2020 and 6 November 2020.

1.29 Mr David Gainsford, Executive Director, Infrastructure Assessments, NSW Department of Planning, Industry, and Environment acknowledged that the documents as published in the media were 'an accurate reflection of those comments received' at the time.²⁴

1.30 Mr Simon Draper, Chief Executive Officer, Infrastructure NSW summarised concerns raised by government witnesses in relation to the release of the documents:

... consider the broad implications for those processes of having incomplete, out-of-date and out-of-context information regularly circulated and speculated on. For the planning assessment process to work effectively, project proponents need to know that the process of seeking input from stakeholders and regulatory agencies, and providing responses to that input, can be conducted with confidence.²⁵

²³ Kathleen Calderwood, 'Water NSW argues against more environmental assessments around Warragamba Dam wall', *ABC News online*, 5 August 2020, <https://www.abc.net.au/news/2020-08-05/water-nsw-amends-warragamba-dam-wall-proposal/12527164>.

²⁴ Evidence, Mr David Gainsford, Executive Director, Infrastructure Assessments, NSW Department of Planning, Industry, and Environment, 28 August 2020, p 4.

²⁵ Evidence, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, 28 August 2020, p 2.

Committee comment

- 1.31** At the time of this report, the committee understands that WaterNSW is still in the process of finalising the EIS. It is not known if a final EIS has been submitted to the Department of Planning, Industry and Environment for consideration or public exhibition.
- 1.32** The committee rejects the suggestion made by government witnesses that there should be an assumption that formal advice by government agencies for such a project should be “in-confidence” and not subject to public scrutiny outside of the Government’s preferred timeline for release. The committee contends that this approach is inconsistent with the *Government Information (Public Access) Act 2009* and that there is an overriding public interest in favour of disclosure for the majority of documents relating to this project.
- 1.33** The committee expresses its disappointment that the Government has not been more transparent in providing documents relating to this project in response to Standing Order 52: Orders for Papers Motions through the Legislative Council. It is especially unclear why information concerning the biodiversity assessment process would be deemed ‘cabinet-in-confidence’.
- 1.34** To address this, the committee recommends improved transparency around the development of the EIS process for the Warragamba Dam wall raising project, including for future documents generated as part of the consideration of this project such as the Final Business Case, on the basis of there being a clear public interest in favour of disclosure under the *NSW Government Information (Public Access) Act 2009*.

Recommendation 1

That the NSW Government improve transparency around the development of the EIS process for the Warragamba Dam wall raising project, including for future documents generated as part of the consideration of this project such as the Final Business Case, on the basis of there being a clear public interest in favour of disclosure under the *NSW Government Information (Public Access) Act 2009*.

Chapter 2 Flood mitigation

This chapter looks at the proposal to raise Warragamba Dam as a flood mitigation strategy for Hawkesbury Nepean Valley and considers the most recent flood event in March 2021 as a case study.

Flood risk in the Hawkesbury Nepean Valley

- 2.1 The Hawkesbury Nepean Valley has a high flood hazard, with both historical and geological evidence of rapid widespread flooding across the Valley.²⁶
- 2.2 The flood risk is elevated due to a combination of large upstream catchments which narrow downstream with floodwaters backing up behind a natural choke point at Sackville George. This is commonly described as the "Bathtub Effect" and is unusual for river valleys which more commonly widen as they approach the mouth.²⁷
- 2.3 The Insurance Council of Australia considers the Hawkesbury Nepean floodplain to have the highest single flood exposure in New South Wales due to the natural flood hazard and significant and growing population and development across the floodplain.²⁸
- 2.4 There have been eight moderate to major flood events in the Hawkesbury Nepean Valley since Warragamba Dam was completed in 1960.²⁹
- 2.5 The largest flood event in the valley since European settlement occurred in 1867. The event was approximately a 1 in 500 chance per year event and the river reached 19.7 metres above normal river height at Windsor. This compares to the largest flood since the construction of the Warragamba Dam in 1961 which reached almost 15 metres above normal river height at Windsor and was a 1 in 30 to 1 in 40 chance per year event.³⁰ To put these levels in context, the Probable Maximum Flood, which is a largest flood which could occur for the valley is assessed as being more than 27m.³¹

²⁶ Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, p 13.

²⁷ Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, p 15.

²⁸ Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, p 3.

²⁹ Tabled document, Infrastructure NSW, March 2021 flood event, Hawkesbury Nepean Valley, 7 June 2021, p 17.

³⁰ Tabled document, Infrastructure NSW, March 2021 flood event, Hawkesbury Nepean Valley, 7 June 2021, p 17.

³¹ Infrastructure NSW, *Resilient Valley, Resilient Communities, Hawkesbury-Nepean Valley Flood Risk Management Strategy*, January 2017, p 20.

Taskforce Options Assessment Report

- 2.6** In January 2019, Infrastructure NSW released the Hawkesbury-Nepean Valley Flood Risk Management Strategy: Taskforce Options Assessment Report. The primary purpose of the report was to inform the Warragamba Dam Raising proposal environmental impact assessment.
- 2.7** The report documented the work of the Hawkesbury-Nepean Valley Flood Management Taskforce in considering infrastructure and non-infrastructure options to reduce overall flood risk in the valley.
- 2.8** Two infrastructure options were considered feasible in the final options assessment: the creation of a flood mitigation zone (FMZ) by raising Warragamba Dam Wall by 14 metres and upgrading local evacuation roads.³²
- 2.9** Options that involved lowering Warragamba Dam Full Storage Limit were not supported in the flood strategy, but it was noted in the report that these options would be updated as part of the feasible alternative options requirements under the SEARs for the Warragamba Dam Raising EIS.³³
- 2.10** The taskforce determined that upgrades to major regional evacuation roads were not cost effective to address existing flood risk but noted that a Regional Road Evacuation Master Plan will be developed to have flood risk considered when those roads are upgraded in response to growth in the Hawkesbury-Nepean Valley.³⁴
- 2.11** Raising of Warragamba Dam by 14 metres was found to have the “highest net benefit” based on a combination of flood peak reduction, reduced exposure to floods, more certainty of time for evacuation, and reduced risk to life. While specific financial costs and benefits were not fully quantified in report, net financial benefit of \$166 million was attributed to the project and it was ranked as having a high social, environmental and cultural heritage impact.³⁵
- 2.12** The cost of the 14 metre raising was indicated in the Options Assessment Report at between \$500 million and \$1 billion.³⁶ The Government provided no cost guidance in its submission to the inquiry, instead indicating it would be influenced by a number of factors.³⁷ Mr Simon Draper, Chief Executive Officer, Infrastructure NSW gave evidence that the last public cost was released in the 2015 Strategic Business Case at \$690 million but that that was in 2015 dollars and would

³² Infrastructure NSW, *Hawkesbury-Nepean Valley Flood Risk Management Strategy Taskforce Options Assessment Report*, January 2019, Table 4.1, pp 50-51.

³³ Infrastructure NSW, *Hawkesbury-Nepean Valley Flood Risk Management Strategy Taskforce Options Assessment Report*, January 2019, Table 4.1, Note 1, p 52.

³⁴ Infrastructure NSW, *Hawkesbury-Nepean Valley Flood Risk Management Strategy Taskforce Options Assessment Report*, January 2019, Table 4.1, Note 3, p 52.

³⁵ Infrastructure NSW, *Hawkesbury-Nepean Valley Flood Risk Management Strategy Taskforce Options Assessment Report*, January 2019, Table 4.3, p 60.

³⁶ Infrastructure NSW, *Hawkesbury-Nepean Valley Flood Risk Management Strategy Taskforce Options Assessment Report*, January 2019, Table 4.3, p 60.

³⁷ Submission 237, NSW Government, p 22.

certainly be higher than that now. Under questioning the NSW Government would not provide an updated estimated cost.³⁸

Flood mitigation arguments for a 14 metre raising

2.13 The proposal to raise Warragamba Dam is designed to create 'airspace' in a dedicated 14 metre flood mitigation zone above the current full supply level of the dam. This additional 14 metres of airspace would have the capacity to hold back approximately 1000 billion litres, or 1000 gegalitres. The NSW Government explained in its submission:

This would allow floodwaters coming from the large Warragamba Catchment to be temporarily held back and then released in a controlled way. This would delay and reduce the flood peak and flood extent for downstream communities and allow more time for evacuation – reducing the risk to lives, flood damages and social disruption caused by major floods in the valley.³⁹

2.14 The Government has indicated that the flood mitigation zone created by the dam would be used to temporarily detain floodwater for 'around 14 days'.⁴⁰ However the Government has provided no detailed information about how releases of water held within this flood mitigation zone will be managed.

2.15 The proposal to raise Warragamba Dam by 14m is guided by a number of conclusions drawn from the work of the Hawkesbury-Nepean Valley Flood Risk Management Strategy Taskforce and reflected in the Resilient Valleys Resilient Communities document, including that:

- The Warragamba catchment contributes the majority of flows into the Hawkesbury Nepean catchment during flood events, representing '80% of the catchment at Penrith, and 70% of the catchment at Windsor'.⁴¹
- The targeted flood events are between the 1 in 50 and 1 in 1000 chance per year event as major flood islands on the Hawkesbury Nepean floodplain are 'below the 1 in 1,000 chance per year flood level, and therefore additional mitigation would provide limited additional reduction in risk to life',⁴² and the majority of average annual flood damages and costs come from floods ranging between 1 in 50 and 1 in 500 chance per year events.⁴³
- A 14m raising would be most effective to reduce flood peaks in the range of 1 in 50 to 1 in 500 chance per year events assessing that '83% of the modelled events that currently reach the 1 in 100 chance per year flood planning level would no longer reach that level'⁴⁴, with a 14m raising.

³⁸ Evidence, Hon Stuart Ayres MP, Minister for Jobs Minister for Jobs, Investment, Tourism and Western Sydney, 7 June 2021, pp 39-40.

³⁹ Submission 237, NSW Government, p 15.

⁴⁰ Submission 237, NSW Government, p 16.

⁴¹ Submission 237, NSW Government, p 21.

⁴² Submission 237, NSW Government, p 21.

⁴³ Submission 237, NSW Government, p 20.

⁴⁴ Submission 237, NSW Government, p 21.

- For more significant events, a 14 metre raising would provide additional time for evacuation with models showing a delay in flood peaks of 10 or more hours.⁴⁵

March 2021 Flood events

- 2.16** The flood that occurred across the Hawkesbury-Nepean in March 2021 was generated by a prolonged coastal trough off the NSW coast that lasted from 17 March through 24 March. Unlike most floods in the Hawkesbury-Nepean, it was not generated by an East Coast low and was not forecast to be a major rain event however the event generated significant rainfalls across the water catchments including more than 500mm in the Blue Mountains.⁴⁶
- 2.17** At the start of the event Warragamba Dam was at 96.3% capacity or 1.01m below full storage. Water had been released to maintain a maximum of 1m below full storage for operation and maintenance purposes since November 2020.
- 2.18** On Saturday 20 March 2021, Warragamba began to spill and the outflow peaked at 1.54 metres above full supply level contributing 1,200 GL to downstream flows during the event with a peak discharge of 500 GL a day. It is noted that this event would have filled the entirety of a flood mitigation zone created by a 14m raising in just over two days at the peak of inflows into the Warragamba catchment.
- 2.19** Warragamba catchment contributed 59% of inflows into the catchment during the event with the majority flowing over the dam wall. This is significantly less than the percentage of flows attributed to the Warragamba Catchment during flood events of between 70% and 80% as identified in the NSW Government's submission indicating the extent to which catchments other than Warragamba contributed to the March 2021 flood.
- 2.20** The flooding was assessed as a moderate flood in Penrith but reached major flood classification at Windsor at 12.93 metres. The flood peak at Windsor was within the range of a 1 in 10 to 1 in 20 chance per year event.
- 2.21** Mr Patrick Conolly, Mayor, Hawkesbury City Council provided evidence to the committee in June of preliminary damage assessments from the floods on that local Government area, "for council's own assets we are looking at about \$24.5 million of damage. For privately owned properties, 600 properties were affected; 236 of those are inhabitable and 61 were completely destroyed."⁴⁷
- 2.22** The Government concluded that if the Warragamba Dam had been raised by 14 metres at the time of the March 2021 event the flood peak at Windsor would have been 3.5 metres lower than what was recorded, reducing the flood to a minor flood level or a 1 in 5 chance per year event.⁴⁸

⁴⁵ Submission 237, NSW Government, p 21.

⁴⁶ Tabled document, Infrastructure NSW, March 2021 flood event, Hawkesbury Nepean Valley, 7 June 2021, p 5.

⁴⁷ Evidence, Mr Patrick Conolly, Mayor, Hawkesbury City Council, 7 June 2021, p 3.

⁴⁸ Tabled document, Infrastructure NSW, March 2021 flood event, Hawkesbury Nepean Valley, 7 June 2021, p 33.

- 2.23** When asked in the hearing on 7 June 2021 if the modelling behind these figures was available for public scrutiny, Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Management, Infrastructure NSW took the question on notice. The answer subsequently received was that:

Analysis of the March 2021 flood event is ongoing, including in relation to data that can be used in modelling and the ability of a raised dam to have mitigated the flooding. This work is a multi-agency effort. Further information about the flood event will be made available to the public when this assessment is completed.⁴⁹

- 2.24** The Government has not released any information about how the release of water from the flood mitigation zone of a raised Warragamba Dam would have impacting downstream flooding.

Alternative arguments regarding flood risk and mitigation

- 2.25** The committee has heard no opposition to the central tenet of debate that the Hawkesbury Nepean Floodplain has a high risk of flooding, however it has heard very different arguments in regards to assessing flood risk and the relative value of various flood mitigation options.

- 2.26** Dr Chas Keys, former Deputy Commissioner of the NSW State Emergency Service gave evidence to the committee that 'the raising of the dam wall will reduce the threat of flooding for the lesser, more frequent floods in these areas but will according to the government's own investigations achieve little mitigation in the bigger events.'⁵⁰

- 2.27** Dr Keys central concern was that this reduction in smaller and more frequent floods would lead to the so called "Levee Paradox" whereby flood mitigation efforts can drive a push for development on floodplains increasing overall risk.⁵¹

- 2.28** Dr Keys provided an example of the levee paradox in effect in Brisbane, Queensland, following the upgrade of Wivenhoe Dam to a flood mitigation dam following the devastating 1974 floods and the subsequent flood event in 2011. The effect of reducing the flood risk was increased development on the Brisbane River floodplain and despite the 2011 flood peaking 1 metre below the 1974 height the number of inundated houses was much greater. The 1 metre reduction in flood height was attributed to the operation of Wivenhoe Dam as a mitigation dam but the additional damage was as a direct result of more people living in flood prone areas that were considered at less risk.⁵²

- 2.29** Dr Keys concluded:

The raising of the (Warragamba) dam is beguiling. It makes a kind of popular sense but it is not necessarily highly productive of mitigation, especially in rare genuinely big floods which will be the most consequential. The pressing need, I think, is to stop the problem of community flood vulnerability from getting worse. We should focus on

⁴⁹ Answers to Questions on Notice, Infrastructure NSW, 9 July 2021, p 1.

⁵⁰ Submission 362, Dr Chas Keys, p 5.

⁵¹ Submission 362, Dr Chas Keys, p 5.

⁵² Submission 362, Dr Chas Keys, p 3.

restricting development in this valley. We should focus on building more evacuation routes and we are going to have to do that even if the dam is raised. We should focus on lowering the full supply level of the dam to create flood storage capacity. We should focus on buying back the worst affected properties...⁵³

2.30 Professor Jamie Pittock from the Fenner School of Environment Society, Australian National University provided alternative options to the committee incorporated in his report, *“Managing flood risk in the Hawkesbury – Nepean Valley - A report on the alternative flood management measures to raising Warragamba Dam wall.”* The report detailed four alternatives to raising the Warragamba Dam and were summarised by Professor Pittock as:

1. Provide alternative flood storage in Warragamba Dam by lowering the full storage level of Warragamba Dam by 12 metres to free 795 billion litres of airspace for flood control;
2. Stop putting people in harm’s way in housing developments on the floodplain and instead promote flood resilient land uses like farming, recreation and conservation.
3. Improve evacuation routes and flood forecasting.
4. Relocate the most flood prone residents.⁵⁴

2.31 Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney highlighted the need to focus on evacuation infrastructure given the 134,000 current residents and workers on the floodplain and plans to double in the future saying, 'we know that the current evacuation arrangements cannot guarantee that these thousands of residents would be able to safely evacuate due to lagging flood evacuation infrastructure.'⁵⁵

2.32 Mr Kernaghan suggested:

We need a plan that sets a clear vision and action for how the Government will reduce the number of people at risk to floods across the Hawkesbury-Nepean flood plain. Through zoning, tradeable development rights and upgrading evacuation routes, the plan must reduce the risk to current residents, stop adding new ones where there is additional risk and through a buyback policy, for instance, providing a safety net for those unable to afford insurance and to rebuild post-disaster or exit the flood plain.⁵⁶

2.33 Witnesses also raised the issue of the contribution of catchments other than Warragamba to major flooding in the Hawkesbury Nepean.

2.34 The NSW Government submission claimed that, 'the proposal to raise Warragamba Dam for flood mitigation is also effective because the Warragamba Catchment represents around 80% of the catchment at Penrith, and 70% of the catchment at Windsor.'⁵⁷

⁵³ Evidence, Dr Chas Keys, Former Deputy Director-General, NSW State Emergency Service, 7 June 2021, p 22.

⁵⁴ Submission 364, Professor Jamie Pittock, p 1.

⁵⁵ Evidence, Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney, 7 June 2021, p 20.

⁵⁶ Evidence, Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney, 7 June 2021, p 21.

⁵⁷ Submission 237, NSW Government, p 21.

- 2.35** This evidence was somewhat contradicted by the NSW Government in further evidence following the March 2021 flood event. Mr Simon Draper, Chief Executive Officer, NSW Infrastructure noted that, 'In the March 2021 flood the Warragamba catchment contributed nearly 60 per cent of the floodwaters to Windsor, with the other catchments contributing around 40 per cent. This ratio is consistent with historical records as well as the contemporary hydrological modelling'⁵⁸
- 2.36** A table provided in a briefing to the committee following the March 2021 flood event highlighted the contributions of various catchments to moderate and major flooding in the Hawkesbury Nepean since 1961. This table showed that of the eight events, the contribution of the Warragamba catchment was between 42% and 69% but was less than 60% on five occasions.⁵⁹
- 2.37** Professor Pittock noted that:
- You will have seen those graphs and they say that somewhere between 40 and 60 per cent of floodwaters and many historical floods have come from tributaries downstream of Warragamba Dam. Now that is likely to change over time and become more dangerous for a range of factors. One is changes of land use in the catchment. So as urbanisation increases the area of hard surface in places like the South Creek catchment it is likely that any rain that does fall is likely to run off more quickly and create a high peak and be more dangerous⁶⁰
- 2.38** Dr Keys noted that, 'we are going to get floods periodically in which the serious contributions will be unaffected by whatever happens at Warragamba Dam because the water will come down the Nepean, the Grose, the South and Eastern creeks, et cetera.'⁶¹

Insurance Council of Australia

- 2.39** The submission to the inquiry by the Insurance Council of Australia (ICA) indicated that
- In 2015 the Hawkesbury Nepean Taskforce requested the ICA to provide comment on the relative merits, from an insurance premium perspective, that could be achieved for residents of the Hawkesbury Nepean Valley if either of two mitigation scenarios were to be implemented by government.⁶²
- 2.40** The submission provided advice that under the mitigation options considered there would be between a 76% and 87% reduction in Average Annualised Damage for the region.⁶³

⁵⁸ Evidence, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, 7 June 2021, p 31.

⁵⁹ Tabled document, Infrastructure NSW, March 2021 flood event, Hawkesbury Nepean Valley, 7 June 2021, p 17.

⁶⁰ Evidence, Professor Jamie Pittock, Fenner School of Environment Society, Australian National University, 7 June 2021, p 23.

⁶¹ Evidence, Dr Chas Keys, Former Deputy Director-General, NSW State Emergency Service, 7 June 2021, p 23.

⁶² Submission 375, Insurance Council of Australia, p 2.

⁶³ Submission 375, Insurance Council of Australia, p 4.

2.41 No information about the details of the mitigation options assessed by the ICA to arrive at these conclusions was provided in the submission.

2.42 The submission made no specific statement in support or against the current proposal for a 14m dam wall raising but concluded that:

Decisions that could lead to rare flooding of environmental resources are fundamentally regrettable to all but must be balanced against the greater community need. Where sound analysis shows that there are no reasonable alternatives, those difficult decisions must be made in a timely fashion in order for work to commence in time for lives to be saved and property protected before the next serious flood event.⁶⁴

2.43 On 15 February 2021 the Chief Executive Officer of the Insurance Council of Australia, Mr Andrew Hall, wrote to the Chair of the committee updating the ICA's position on the wall raising on the basis of meetings with Traditional Owners and concerns raised about the cultural heritage assessment stating:

...the position of the general insurance industry is now that without satisfactory environmental and cultural heritage impact assessments being completed and made public to allow for full and open assessment, the industry is unable to support the proposal as it currently stands. We would advocate for the exploration of alternative mitigation options to reduce flood risks for downstream communities in consultation with the industry and traditional owners.⁶⁵

2.44 In evidence given to the committee on 7 June 2021 by Mr Hall provided evidence that ICA remains in favour of exploring all options for flood mitigation but clarified that should be 'in a process that means that all the impacts can be understood, costed, and done in agreement with the impacted stakeholders'.⁶⁶ Further, Mr Hall encouraged the Government to 'be as transparent and open as possible through the work that they are doing because at the moment all we are reading is reports that are leaked'.⁶⁷

2.45 Mr Hall also indicated the insurance industry was prepared to participate in further discussions about options with other stakeholders, including participating in a roundtable and providing updated information to inform further assessments.⁶⁸

Committee comment

2.46 The committee acknowledges the substantial flood risk in the Hawksbury Nepean Valley and the responsibility of State Government to work with the community, local Government, business, and emergency services to understand and manage that risk.

⁶⁴ Submission 375, Insurance Council of Australia, p 6.

⁶⁵ Correspondence from Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, to Chair, 15 February 2021.

⁶⁶ Evidence, Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, 7 June 2021, p 13.

⁶⁷ Evidence, Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, 7 June 2021, p 14.

⁶⁸ Evidence, Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, 7 June 2021, p 15.

- 2.47 The committee recognises the March 2021 flood event had significant impacts on people and businesses on the floodplain, including through the loss and damage of property and disruption to lives.
- 2.48 The committee notes with concern the Government's own forecasts that development on the Hawkesbury Nepean Floodplain is set to grow based on current planning rules, increasing the number of people and properties that will be at risk of future major flooding regardless of whether or not the dam wall raising proceeds.
- 2.49 The committee notes a broad consensus from experts, academics and the insurance industry that the Government should re-assess alternatives to raising Warragamba Dam wall including a combination of lowering the full supply limit of Warragamba Dam, improving evacuation routes, and buy-backs or other strategies to remove people from highly flood prone areas and prevent future development on flood prone land.
- 2.50 In this regard, the Committee notes the evidence of Professor Pittock (set out at 2.30), from Mr Draper of Infrastructure NSW and from Mr Whitworth of the Department of Planning, Industry and Environment on the need to improve road evacuation routes from flood risk areas.⁶⁹ Evidence of the same nature was also given by representatives of affected local Councils Penrith, Hawkesbury, Blue Mountains and Wollondilly.⁷⁰ Accordingly, the Committee recommends the NSW Government urgently develop, together with local councils, a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of Western Sydney. Notwithstanding the determination by the Hawkesbury-Nepean Flood Risk Management Taskforce (set out at 2.10), this should include both funding and clear timeframes for the upgrade of roads necessary to give effect to the plan.
- 2.51 Such an approach would be consistent with other evidence heard by the committee, including from Dr Keyes (at 2.26 and following) and also from the Insurance Council of Australia (at 2.43).

Recommendation 2

That the NSW Government urgently develop, together with local councils, a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of Western Sydney. This should include both funding and clear timeframes for the upgrade of roads necessary to give effect to the plan.

- 2.52 The committee is of the view that the Government has not adequately assessed the merits of the alternative proposals nor sufficiently engaged stakeholders in fully assessing alternatives to the dam raising proposal. The committee is of the view that the Government should do more work to engage stakeholders and consider alternatives, such as convening a roundtable of

⁶⁹ Evidence, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, 25 November 2019, p 11; Evidence, Mr Brett Whitworth, Deputy Secretary, Greater Sydney, Place & Infrastructure, Department of Planning, Industry and Environment, 25 November 2019, p 11.

⁷⁰ Evidence, Mr Wayne Mitchell, Director-Development and Regulatory Services, Penrith City Council, 25 November 2019, p 25; Evidence, Mr Andrew Kearns, Manager Strategic Planning, Hawkesbury City Council, 25 November 2019, p 24.

stakeholders to inform a more detailed options assessment as part of the final EIS and Business Case for the project.

Recommendation 3

That the NSW Government convene a roundtable of stakeholders to inform a more detailed options assessment as part of the final Environmental Impact Statement and Business Case for the project.

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- 2.53** The committee accepts that raising Warragamba Dam wall by 14 metres will reduce or delay moderate and major flood events but ultimately will not be able to prevent inevitable catastrophic flood events across the Hawkesbury Nepean floodplain.
- 2.54** The committee also accepts that flood mitigation in the Warragamba catchment alone cannot stop major flooding of the Hawkesbury Nepean noting the substantial contribution to flood events from other catchments.
- 2.55** For this reason, the committee is of the view that the NSW Government should implement flood mitigation strategies and planning policies to reduce the number of people, homes and businesses at risk from future catastrophic flooding in the Hawkesbury Nepean Floodplain.

Recommendation 4

That the NSW Government implement flood mitigation strategies and planning policies to reduce the number of people, homes and businesses at risk from future catastrophic flooding in the Hawkesbury Nepean Floodplain.

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- 2.56** The committee accepts that there is real economic benefit and harm reduction benefits in flood mitigation strategies to reduce or delay moderate and major flood events but notes that alternatives such as including but not limited to lowering the full supply level of the existing Warragamba Dam, voluntary acquisition of the most vulnerable properties, upgrading evacuation roads and restricting future development on flood prone land. This would produce similar results with no upstream environmental and aboriginal cultural heritage impact and that this option, linked with further water supply infrastructure, warrants further consideration and comparative analysis as required under the SEARs.

Recommendation 5

That the NSW Government provide detailed alternative options analysis in the final Environmental Impact Statement and Final Business Case for feasible alternatives, including but not limited to lowering the full supply level of the existing Warragamba Dam, voluntary acquisition of the most vulnerable properties, upgrading evacuation roads and restricting future development on flood prone land.

- 2.57** The committee notes with frustration the unwillingness of the Government to provide the modelling relied on to make claims about how a raised Warragamba Dam wall would have changed the extent of the March 2021 flood event and expresses its frustration about the lack of transparency around aspects of this proposal and the claims made by the Government in regards to its benefits.

Chapter 3 World Heritage Impacts

This chapter examines the adequacy of the World Heritage Assessment as part of the development of the EIS, including engagement with the World Heritage Committee.

Context

- 3.1** The Greater Blue Mountains World Heritage Area constitutes one of the largest and most intact tracts of protected bushland in Australia. The site includes an outstanding diversity of habitats and plant communities that support its globally significant species and ecosystem diversity.⁷¹
- 3.2** The Greater Blue Mountains World Heritage Area (GBMWhA) was officially recognised by the World Heritage Committee on 30 November 2000 after UNESCO's meeting in Cairns, Australia. The area itself consists of 1.03 million hectares of mostly forested landscape on a deeply-incised sandstone plateau 60-180 km inland from central Sydney.⁷²
- 3.3** The NSW Government's Non-Aboriginal Heritage Impact Assessment details the extent of inundation that would be caused during flood events from the proposed raising of Warragamba Dam wall in the GBMWhA and the Blue Mountains National Park, some of which crosses over. This assessment outlines that 1,303 hectares within the GBMWhA will be inundated and 5,7274 hectares of the Blue Mountains National Park will be affected.
- 3.4** Under UNESCO's *Convention Concerning the Protection of the World Cultural and Natural Heritage* (the Convention), Australia is obliged to ensure 'the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage'. Under Article 2 of the Convention, the GBMWhA is considered natural heritage for 'geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation'.⁷³
- 3.5** Specifically, the GBMWhA listing is based on two key criterion under the convention:
- Criterion (ix): ...outstanding and representative examples in a relatively small area of the evolution and adaptation of the genus *Eucalyptus* and eucalypt-dominant vegetation on the Australian continent...
- Criterion (x): ...outstanding diversity of habitats and plant communities that support its globally significant species and ecosystem diversity (152 plant families, 484 genera and c 1,500 species). A significant proportion of the Australian continent's biodiversity, especially its scleromorphic flora, occur in the area.⁷⁴

⁷¹ UNESCO, World Heritage List, *Greater Blue Mountains Area*, <https://whc.unesco.org/en/list/917/>

⁷² UNESCO, News & Events, World Heritage Committee Inscribes 61 New Sites on World Heritage List, 30 November 2000, <https://whc.unesco.org/en/news/184/>

⁷³ UNESCO, Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, pp 2-3, <https://whc.unesco.org/archive/convention-en.pdf>

⁷⁴ UNESCO, World Heritage List, *Greater Blue Mountains Area*, <https://whc.unesco.org/en/list/917/>

World Heritage Impact Assessment

- 3.6** The SEAR's outline the requirements for the assessment of World Heritage impact as part of the EIS including that the proponent:
- must identify and assess any direct and/or indirect impacts (including cumulative impacts) to the heritage significance of ... items listed on the National and World Heritage lists⁷⁵
 - must consider the management plan for a World Heritage property or National Heritage place.⁷⁶
- 3.7** Section 18 and 19 of the SEARs outline the information required in the EIS as part of the assessment of impacts and the requirements for an offsets strategy where significant residual adverse impacts are likely.⁷⁷
- 3.8** In its submission to the inquiry, the NSW Government outlined their approach to assessing impact on World Heritage:
- The impact on the World Heritage Area is being assessed as part of the EIS against the objectives set out in the Greater Blue Mountains World Heritage Area 2009 Strategic Plan. The assessment will consider the proposal against the individual criteria from the Strategic Plan around key areas, including; World Heritage values, other identified values, threats, strategic and key management objectives.⁷⁸
- 3.9** The Greater Blue Mountains World Heritage Area Strategic Plan was prepared to assist in meeting Australia's international responsibilities under the World Heritage Convention. Objective 1 of the Strategic Plan is to 'maintain, and wherever possible, improve the current and future integrity of the GBMWhA'.⁷⁹
- 3.10** In 2019, at the 43rd session of the World Heritage Committee, it was noted with concern 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.⁸⁰
- 3.11** The World Heritage Committee requested the NSW Government ensure that the current process to prepare an EIS for the proposal fully assesses all potential impacts on the OUV of

⁷⁵ NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements (SEARs), Warragamba Dam Raising Project, March 2018, pp 8-9.

⁷⁶ NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements (SEARs), Warragamba Dam Raising Project, March 2018, p 23.

⁷⁷ NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements (SEARs), Warragamba Dam Raising Project, March 2018, pp 24-25.

⁷⁸ Submission 237, NSW Government, p 17.

⁷⁹ NSW Department of Environment and Climate Change, Greater Blue Mountains World Heritage Area Strategic Plan, Strategic Plan January 2009, p 25, <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-plans-of-management/greater-blue-mountains-world-heritage-area-strategic-plan-080491.pdf>

⁸⁰ UNESCO, Resolutions/Decisions, Decision: 43 COM 7B.2 Greater Blue Mountains Area (Australia) (N 917), <https://whc.unesco.org/en/decisions/7430>

the property and its other values, including Aboriginal cultural heritage.⁸¹ The World Heritage Committee also requested that an updated report on the state of conservation of the property be submitted by 1 December 2020 for review at its 45th session in 2021.⁸²

- 3.12** The NSW Government responded by asserting that the EIS for the proposal to raise the Warragamba Dam wall will fully assess all potential impacts on the property's OUV and that it would submit the EIS to the World Heritage Centre for review by the International Union for Conservation of Nature.⁸³
- 3.13** The Australia ICOMOS, an official advisory body to the World Heritage Committee under the World Heritage Convention, stated that 'the proposed raising of the Warragamba Dam wall has potential to affect the integrity of the GBMWH and therefore to impact adversely upon the Outstanding Universal Value of this World Heritage property'.⁸⁴
- 3.14** Ms Helen Lardner, President, Australia ICOMOS, expressed concern regarding the incompatibility of this project with an area of world heritage significance and argued it was 'fundamentally at odds with specific decisions of the World Heritage Committee'. Ms Lardner noted that the World Heritage Committee had urged State parties to 'ensure that the impacts from dams that could affect properties located upstream or downstream within the same river basin are rigorously assessed in order to avoid impacts on the outstanding universal value'.⁸⁵
- 3.15** Professor Jamie Kirkpatrick, Geography and Spatial Sciences, University of Tasmania, who was part of the team responsible for writing the case for listing the GBMWH, outlined the significance of world heritage listing: 'World Heritage listing means that something is the best of the best in the world—it means it is globally outstanding. It is either the only example of a kind like the Opera House or it is the best example of a particular phenomenon'.⁸⁶
- 3.16** Professor Kirkpatrick further outlined his concerns about the incremental impact on World Heritage values stating:

...[t]hose natural criteria were the only ones that were accepted by the World Heritage Bureau as being apposite to the Greater Blue Mountains World Heritage Area and they were the importance of the area for the storage and development of the megadiverse eucalypts. It is rather amazing that a rare and threatened species, including endemic and relict species, remained unchanged for a very long time.⁸⁷

⁸¹ UNESCO, Resolutions/Decisions, Decision: 43 COM 7B.2 Greater Blue Mountains Area (Australia) (N 917), <https://whc.unesco.org/en/decisions/7430>

⁸² UNESCO, Resolutions/Decisions, Decision: 43 COM 7B.2 Greater Blue Mountains Area (Australia) (N 917), <https://whc.unesco.org/en/decisions/7430>

⁸³ UNESCO, Resolutions/Decisions, Decision: 43 COM 7B.2 Greater Blue Mountains Area (Australia) (N 917), <https://whc.unesco.org/en/decisions/7430>

⁸⁴ Submission 384, Australia ICOMOS, p 2.

⁸⁵ Evidence, Ms Helen Lardner, President, Australia ICOMOS, 6 November 2020, p 6.

⁸⁶ Evidence, Professor Jamie Kirkpatrick, Geography and Spatial Sciences, University of Tasmania, 6 November 2020, p 15.

⁸⁷ Evidence, Professor Jamie Kirkpatrick, Geography and Spatial Sciences, University of Tasmania, 6 November 2020, p 15.

3.17 Professor Kirkpatrick observed that one of the dangers of having a World Heritage listing is that there is a 'tendency to think that it does not really matter if you move a little bit of the reserve for something else because it is only a tiny bit'. Although, in this example of the GBMWH, it would result in a 'large proportion on a global basis because this is the only place where the eucalypts are listed for World Heritage'.⁸⁸

3.18 In response to the potential for this project to lead to a delisting of the GBMWH, Ms Larder outlined the process that would precede such a step:

It would be a case where Australia would be asked to respond to comments, particularly criticisms, that were made, for example, on the EIS and basically asked to explain how they were protecting the World Heritage values ... But at the moment we have a situation where the EIS has not been submitted and that process Australia would need to go through responding to any comments.⁸⁹

3.19 A 2020 review by the IUCN of the 'Conservation Outlook' for the GBMWH downgraded the site from 'good with some concerns' to 'significant concern'. The assessment identified threats and potential threats and included the raising of Warragamba Dam for flood mitigation as a 'high threat' due to the likely impact on biodiversity, aesthetic, wilderness, geodiversity and Indigenous cultural values.⁹⁰

Adequacy of World Heritage Impact Assessment

3.20 On 9 August 2020, the *Sydney Morning Herald* published a leaked document prepared by the NSW National Parks and Wildlife Service (NPWS) entitled, 'Warragamba Dam EIS consistency review: NPWS comments'.⁹¹ The undated document outlined critical areas that are not addressed in the EIS, as required by the SEARs, including impacts on World Heritage.⁹²

3.21 In regards to World Heritage, the NPWS document notes that the EIS does not:

- Consider the impacts of the project on all the elements of Outstanding Universal Value (OUV) for the property as a whole
- Specifically address impacts on the attributes of the values
- Properly address the "integrity" component of the World Heritage Area, including with respect to Aboriginal Cultural heritage
- Adequately address offsets for World Heritage values, including the specific need to demonstrate "at a minimum, how the proposed offset will improve the integrity and resilience of the heritage values of the impacted heritage place or property."

⁸⁸ Evidence, Professor Jamie Kirkpatrick, Geography and Spatial Sciences, University of Tasmania, 6 November 2020, p 17.

⁸⁹ Evidence, Ms Helen Lardner, President, Australia ICOMOS, 6 November 2020, p 10.

⁹⁰ See IUCN World Heritage Outlook, *Greater Blue Mountains Area, 2020 Conservation Outlook Assessment*, <https://worldheritageoutlook.iucn.org/node/1104#full-assessment>

⁹¹ Peter Hannam, 'Warragamba dam environment plan not valid government agency finds', *Sydney Morning Herald*, 9 August 2020, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

⁹² Warragamba Dam EIS consistency review: NPWS comment, p 1, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

- ...does not demonstrate how it complies with the Environmental Offsets Policy October 2012 under the EPBC Act to offset all World Heritage values.⁹³

3.22 On 18 September 2020, the *Guardian Australia* published a leaked report by the Commonwealth Department of Agriculture, Water and Environment (DAWE) entitled, 'Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment'.⁹⁴

3.23 The document, dated 10 June 2020, provided a response as part of a review by agencies of consistency of the draft EIS against the SEAR's. In regards to its World Heritage Assessment, DAWE found that '[t]he proposal has not been adequately assessed for impacts on the World Heritage Area's National and World Heritage Values and Outstanding Universal Values.'⁹⁵

3.24 DAWE identified and commented on a number of issues and inadequacies of the assessment within the draft EIS, including:

- Shortfalls in the assessment of impacts on GBMWhA Outstanding Universal Values and World Heritage Values including in relation to the impact on plants and animals other than threatened and endangered species including the platypus and aquatic macroinvertebrates as well as visual impact,
- That the draft EIS did not provide responses against the Desired Outcomes of the Greater Blue Mountains World Heritage Area Strategic Plan Strategic Plan.
- That the draft EIS had not considered how the 2019/20 bushfires may have impacted the assessment of the proposal.⁹⁶

3.25 In response to these media reports, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW stated:

We are well aware of the particular importance of properly assessing incremental impacts on a World Heritage area. Water NSW is working closely with the department and agencies in addressing feedback from the consistency review ahead of public exhibition. The whole point of this process is for the public to have a say, based on the most up-to-date and thorough information.⁹⁷

⁹³ Warragamba Dam EIS consistency review: NPWS comment, Pp 2-3, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

⁹⁴ Lisa Cox, 'NSW government ordered to revisit world heritage assessments for Warragamba Dam expansion', *Guardian Australia*, 18 September 2020, <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

⁹⁵ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, p 3, <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

⁹⁶ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, pp 3-5, <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

⁹⁷ Evidence, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, 28 August 2020, pp 2-3.

Committee comment

- 3.26** The committee notes the obligations of Australia under the World Heritage Convention and the requests by the World Heritage Committee in regards to consultation on the EIS assessment.
- 3.27** The committee also notes that Objective 1 of the Greater Blue Mountains World Heritage Area Strategic Plan is to 'maintain, and wherever possible, improve the current and future integrity of the GBMWhA'. It is the committee's view that the project is inconsistent with Strategic Plan.
- 3.28** The committee acknowledges with concern the significant gaps raised by the Commonwealth Department of Agriculture, Water and the Environment and the NSW National Parks and Wildlife Service in terms of World Heritage Assessment and that there has been no public response by the proponent or the NSW Government, to date, about how the gaps identified will be addressed in a final EIS.
- 3.29** Given this, the committee calls on the NSW Government to undertake additional assessments to address the concerns raised by the Commonwealth Department of Agriculture, Water and Environment and the NSW National Parks and Wildlife Service in regards to the consistency of the World Heritage Impact Assessment before the Environmental Impact Statement is completed and provided to the World Heritage Centre.

Recommendation 6

That the NSW Government ensures the final assessment fully complies with the IUCN World Heritage Assessment Guidelines.

Recommendation 7

That the NSW Government require Water NSW to undertake post-fire field assessments to address the concerns raised by the Commonwealth Department of Agriculture, Water and Environment and the NSW National Parks and Wildlife Service in regards to the consistency of the World Heritage Impact Assessment before the Environmental Impact Statement is completed and provided to the World Heritage Centre.

Recommendation 8

That the NSW Government make clear in the final EIS that goes out for public exhibition, how the concerns raised by the Commonwealth Department of Agriculture, Water and Environment and the NSW National Parks and Wildlife Service in regards to the consistency of the World Heritage Impact Assessment have been addressed in terms of additional assessments or modifications to the proposal.

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- 3.30** The committee also acknowledges with concern the NSW Government's position that no further on-ground assessments will be conducted in regards to bushfire impacts.

- 3.31** Based on the evidence received, the committee is of the view that the government should not proceed with the Warragamba Dam wall raising project, if the proposal cannot maintain or improve the current and future integrity of the Greater Blue Mountains World Heritage Area, and that the government should alternative floodplain management strategies instead.

Recommendation 9

That the NSW Government:

- not proceed with the Warragamba Dam wall raising project, if the proposal cannot maintain or improve the current and future integrity of the Greater Blue Mountains World Heritage Area, and
- pursue alternative floodplain management strategies instead.

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- 3.32** In addition, the committee recommends that the government should provide a final Environmental Impact Statement to the World Heritage Centre in a timely fashion so as to be able to make public any feedback by the World Heritage Committee on the proposal before a planning determination is made.

Recommendation 10

That the NSW Government provide a final Environmental Impact Statement to the World Heritage Centre in a timely fashion so as to be able to make public any feedback by the World Heritage Committee on the proposal before a planning determination is made.

Chapter 4 Aboriginal Cultural Heritage Impacts

This chapter examines the adequacy of the Cultural Heritage assessment as part of the development of the EIS, including the consultation and engagement with Traditional Owners and other Registered Aboriginal Parties.

Context

- 4.1 The area upstream of Warragamba Dam encompasses the Traditional Country of at least six different Aboriginal language groups including the Darug, Gundungurra, Wanaruah, Wiradjuri, Darkinjung and Tharawal.⁹⁸
- 4.2 Widespread and diverse samples of Aboriginal sites have been recorded within the area that preserve a vital record of the social interactions and artistic activities within as well as between these different language groups.⁹⁹
- 4.3 The GMBWHA Strategic Plan includes an objective to 'identify, formally recognise and protect the cultural heritage values of the GBMWHHA' and to 'manage the GBMWHHA jointly with local Indigenous people'. The plan recognises that '[k]nown sites provide evidence of at least 14,000 (and possibly 22,000) years of Aboriginal occupation of the area, but traditional beliefs connect Aboriginal people with the landscape back as far as the creation stories'.¹⁰⁰
- 4.4 During a hearing for this inquiry on 6 November 2020, Aunty Sharyn Halls, Gundungurra Elder, said of the proposed project 'We have an Aboriginal connection to country with our songlines and everything [in] that will be destroyed'. She added that:
- people do not understand that Aboriginal people have a cultural landscape. Anything that is in that landscape is important. Every tree, mineral and rock has an important connection to each other and to Aboriginal people, and every animal.¹⁰¹
- 4.5 The Gundungurra creation story describes the cultural landscape of Burragorang Valley through the story of Gurangatch, a giant serpent, and Mirragan, a native cat or quoll. The Wollondilly and Cox rivers trace the path that Mirragan pursued Gurangatch along, with Gurangatch stopping to rest in the water-holes along the river. Of the 15 waterholes in the creation story, 11 were destroyed by the filling of Warragamba Dam in the 1950s. If the dam wall is raised by

⁹⁸ Submission 15, Dr Jim Smith, p 10.

⁹⁹ NSW Department of Environment and Climate Change, Greater Blue Mountains World Heritage Area Strategic Plan, January 2009, p 15, <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-plans-of-management/greater-blue-mountains-world-heritage-area-strategic-plan-080491.pdf>

¹⁰⁰ NSW Department of Environment and Climate Change, Greater Blue Mountains World Heritage Area Strategic Plan, January 2009, pp 13 and 32, <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-plans-of-management/greater-blue-mountains-world-heritage-area-strategic-plan-080491.pdf>

¹⁰¹ Evidence, Aunty Sharyn Halls, Gundungurra Elder, 6 November 2020, p 4.

14 metres, the temporary inundation would flood another two of the four remaining waterholes that the creation story describes.¹⁰²

Cultural Heritage Impact Assessment

4.6 Part 10 of the SEAR's outline the requirements for the assessment of Cultural Heritage impact as part of the EIS including:

- consultation with Aboriginal people,
- the identification and assessment of direct and indirect impacts on the heritage significance of Aboriginal places and objects,
- use of suitably qualified archaeologists in investigations, and
- the guidelines to be used for these assessment processes.¹⁰³

4.7 The NSW Government outlined how the Aboriginal Cultural Heritage Assessment would be conducted, including:

The Aboriginal Cultural Heritage Assessment is being supported by specialist archaeologists. Following early discussions with the Gundungurra Indigenous Land Use Agreement Consultation Committee, WaterNSW engaged an additional Aboriginal heritage consultant to participate in conducting the survey - selected by the traditional custodians with links to the Gundungurra People and specialised knowledge of Aboriginal heritage in the Blue Mountains region.

The assessment methodology detailed in the Aboriginal Cultural Heritage Assessment report was designed to provide a representative sample of the proposal area. Prior to undertaking the site surveys, the methodology was developed in consultation with the Registered Aboriginal Parties. The survey sampled each of the landforms within the Subject Area to identify the types of Aboriginal sites that may be present within these landforms.

Registered Aboriginal Parties were key participants in all site surveys undertaken with archaeologists. The surveys took place over 72 days between May 2018 and June 2019 to compile information about the cultural significance and values of the Burratorang Valley area that may be impacted. Sites were surveyed outside of the impact area to inform broader cultural context of the Burratorang Valley.¹⁰⁴

4.8 SMEC, the consultant preparing the EIS on behalf of Water NSW, engaged Niche Environment and Heritage to conduct field surveys and prepare the Aboriginal Cultural Heritage Assessment. This process included engagement with Registered Aboriginal Parties.¹⁰⁵

¹⁰² Submission 15, Dr Jim Smith, p 7.

¹⁰³ NSW Department of Planning and Environment, Warragamba Dam Raising Project, Secretary's Environmental Assessment Requirements (SEARs), March 2018, pp 8-9, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachmentRef=SSI-8441%2120200629T002934.658%20GMT>

¹⁰⁴ Submission 237, NSW Government, p 17.

¹⁰⁵ See Submission 212, Ms Kazan Brown; Evidence, Ms Kazan Brown, Gundungurra traditional owner, 6 November 2020; Evidence, Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson

Definitions and explanation of various guidelines informing the Aboriginal Cultural Heritage Assessment

- 4.9 This section provides further background relating to various documents and definitions of terms that were commonly raised in submissions and hearings as it related to the engagement with Aboriginal people in regard to the preparation of the Aboriginal Cultural Heritage Assessment.
- 4.10 The SEARs identified a number of documents and ‘current guidelines’ that would be used to inform the Aboriginal Cultural Heritage Assessment process, including the Indigenous Land Use Agreement and the Australia ICOMOS Burra Charter. Both of these documents were cited numerous times by different witnesses in raising concerns about the assessment process and outcome.
- 4.11 The Gundungurra Indigenous Land Use Agreement (ILUA) is between the Gundungurra people, the Gundungurra Tribal Council Aboriginal Corporation, Gundungurra Aboriginal Heritage Association and the NSW Government and was signed on 20 June 2014. The agreement covers the immediate area that would be impacted by the project and the broader landscape of the Burratorang Valley and surrounding World Heritage Area.¹⁰⁶
- 4.12 The objects of the ILUA include the following:
- c) to enable the Gundungurra People to consent to the undertaking in the Agreement Area of certain acts which may be future acts;
 - d) to provide the Gundungurra People with the opportunity to provide input into the management of certain State lands within the Agreement Area.¹⁰⁷
- 4.13 The Burra Charter was first developed in 1979. It provides guidance for the conservation and management of places of cultural significance (cultural heritage places) by setting a 'standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians'.¹⁰⁸
- 4.14 The NSW National Parks and Wildlife Regulation 2019 sets out the requirements for consultation with Registered Aboriginal Parties as part of a cultural heritage assessment.¹⁰⁹
- 4.15 Further detail is set out in the *Aboriginal cultural heritage consultation requirements for proponents 2010* guidelines. These guidelines define a Registered Aboriginal Person as 'Aboriginal people,

Ward Archaeology, 6 November 2020; Answers to supplementary questions, Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, 16 December 2020.

¹⁰⁶ NSW Department of Planning, Industry and Environment, Office of Environment and Heritage, *Gundungurra Indigenous Land Use Agreement*, 20 June 2014, <https://www.environment.nsw.gov.au/research-and-publications/publications-search/gundungurra-indigenous-land-use-agreement>

¹⁰⁷ NSW Department of Planning, Industry and Environment, Office of Environment and Heritage, *Gundungurra Indigenous Land Use Agreement*, 20 June 2014, p 6, <https://www.environment.nsw.gov.au/research-and-publications/publications-search/gundungurra-indigenous-land-use-agreement>

¹⁰⁸ Australia ICOMOS, *The Burra Charter 2013*, p 1, <https://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf>

¹⁰⁹ NSW National Parks and Wildlife Regulation 2019

Aboriginal organisations or their representatives who have registered an interest in being consulted' about a project.¹¹⁰

- 4.16 The NSW Aboriginal Land Council factsheet explains that an 'Aboriginal person or organisation may become a registered Aboriginal party if they are a cultural knowledge holder' and that "The NPW Regulations and Consultation Requirements policy define cultural knowledge holders as Aboriginal people who hold knowledge relevant to determining the cultural significance of Aboriginal 'objects' and/or 'places'.

Issues with the preparation of the Aboriginal Cultural Heritage Assessment and engagement with Registered Aboriginal Parties

- 4.17 During the inquiry, significant criticisms were raised by Registered Aboriginal Parties (RAP), their representatives and other experts regarding compliance with the Burra Charter, the development of the Cultural Heritage Assessment methodology, the adequacy of field work, the efficacy of the cultural heritage significance assessments.

Compliance with the Burra Charter

- 4.18 According to Ms Helen Lardner, President, Australia ICOMOS the Aboriginal Cultural Heritage Assessment did not comply with the Burra Charter:

... I have been very concerned about the process. I do not think that it is full enough in assessing the significance and nor does it consult with the people who are important to understanding the values. In that way it does not follow the Burra Charter process and that remains a great concern.¹¹¹

Methodology

- 4.19 Ms Kazan Brown, Gundungurra traditional owner, raised concerns with the methodology in response to the Cultural Heritage Assessment. As part of her submission to the inquiry, Ms Brown included an independent review conducted by Scarp Archeology of the Draft Aboriginal Cultural Heritage Assessment on Warragamba Dam Raising. This review was critical of the methodology and the limited value of assessing individual sites in determining broader cultural heritage values and impacts. It stated that '[t]he methodology aims to investigate a predictive model, generated almost entirely on the basis of known archaeological sites. Although the existence of Aboriginal Lore is acknowledged, Aboriginal narratives about Country are not linked to the generation of the model.'¹¹²

¹¹⁰ Department of Environment, Climate Change and Water NSW, *Aboriginal cultural heritage consultation requirements for proponents 2010 - Part 6 National Parks and Wildlife Act 1974*, <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Aboriginal-cultural-heritage/aboriginal-cultural-heritage-consultation-requirements-for-proponents-2010-090781.pdf>

¹¹¹ Evidence, Ms Helen Lardner, President, Australia ICOMOS, 6 November 2020, p 12.

¹¹² Submission 212, Ms Kazan Brown, p 3.

4.20 Ms Taylor Clarke, Gundungurra traditional owner, questioned the ability of the methodology to be able to identify and address the broader cultural impacts of the project: 'One of the things in a lot of these methodologies is the direct effects are the only areas that are being looked at, but what about all the indirect effects? What about the cultural effects? Are they really being considered?'¹¹³

4.21 Questions were also raised about whether or not the methodology had been agreed by Registered Aboriginal Parties. As Ms Brown told the committee:

People keep referring to this as an agreed methodology, but many of us never agreed to this. We were brought a draft copy, we were asked what we thought about it, we made comments and they changed it a little bit. That is what they did. There was no sit-down where they asked, "Do you agree with this? Are you happy for us to do this?".¹¹⁴

Adequacy of field surveys

4.22 The committee heard significant concerns about the extent of the field surveys undertaken to inform the Aboriginal Cultural Heritage Assessment.

4.23 For example, Australia ICOMOS commented that:

the cultural heritage survey undertaken as part of the impact assessment for the dam wall project comprised 25 days across a 354 square kilometre section around the shores of Lake Burragorang. This time-frame appears to be inadequate, either to identify the cultural heritage places which may be affected or to engage appropriately with the relevant Gundungurra Traditional Owners.¹¹⁵

4.24 Some of these concerns also focused on the fact that just 27% of the upstream impacted area was surveyed during field work. Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology noted 'Originally, we were given 25 days, so there was no talk of 27 per cent or 25 per cent. There was 25 days—what can you get done in that time?'¹¹⁶

4.25 The Scarp Archaeology report included as part of the submission by Ms Kazan Brown outlined this concern:

Approximately 27% of the area was covered by the survey transects. I am not concerned by this percentage, perse, but there are a number of other reasons to find this survey to be inadequate: The survey focused only on impact area. There is no assessment of the representativeness of the impact area as a subset of the wider landscape; there is no analysis of any sites located in the impact area but which may have relationships with nearby sites outside the impact zone, or across the wider landscape.¹¹⁷

¹¹³ Evidence, Ms Taylor Clarke, Gundungurra traditional owner, 6 November 2020, p 12.

¹¹⁴ Evidence, Ms Kazan Brown, Gundungurra traditional owner, 6 November 2020, p 10.

¹¹⁵ Submission 384, Australia ICOMOS, p 3.

¹¹⁶ Evidence, Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, 6 November 2020, p 12.

¹¹⁷ Submission 212, Ms Kazan Brown, p 8.

Significance of cultural heritage sites

- 4.26 The analysis in the Aboriginal Cultural Heritage Assessment of the significance of certain sites also received criticism from inquiry participants. For example, Mr Paul Knight, Chief Executive Officer, Illawarra Local Aboriginal Land Council, argued that the significance assessment:

... says absolutely nothing about the value. It says absolutely nothing about that connection. That rating of whether this is highly significant, of medium significance or of low significance has nothing to do with the connection to that country. It has nothing to do with the value of that place and the understanding of us as Aboriginal people.¹¹⁸

- 4.27 This was echoed by Scarp Archaeology in their review which found that:

Scientific significance is not sufficiently justified, and appears to have been based mainly on the ability of the site to answer basic archaeological research questions or on the intactness of sites. There is no linking of Aboriginal narrative/lore or law to the sites and thus no assessment of the significance of the site as heritage 'places'.¹¹⁹

- 4.28 Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, who was invited by the RAP to participate in the survey work provided evidence that the 'significance assessment was done by one person who only spent one day in the field and who had no discussions with the archaeologists involved in the field survey—not one discussion about any of the sites ... There were no discussions with the Aboriginal community'.¹²⁰

- 4.29 Mr Jackson further indicated that he was not consulted about the significant assessments stating: 'I was not consulted about that. I was not asked any questions about any of the field recordings. I checked with the other archaeologist involved and he said he was not either. You would have to ask the Niche archaeologist how she arrived at that (significance assessment)'.¹²¹

Agency responses to the Aboriginal Cultural Heritage Impact Assessment

- 4.30 As previously noted in Chapter 3, the leaked consistency review documents prepared by the Commonwealth Department of Agriculture, Water and Environment and the NSW National Parks and Wildlife Service also contained responses to the cultural heritage assessment in the draft EIS.

Responses by the Commonwealth Department of Agriculture, Water and Environment (DAWE)

- 4.31 The responses offered by DAWE in relation to the Aboriginal Cultural Heritage Impact Assessment addressed issues regarding consultation with the Aboriginal community, in

¹¹⁸ Evidence, Mr Paul Knight, Chief Executive Officer, Illawarra Local Aboriginal Land Council, 6 November 2020, p 6.

¹¹⁹ Submission 212, Ms Kazan Brown, p 4.

¹²⁰ Evidence, Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, 6 November 2020, p 6.

¹²¹ Evidence, Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, 6 November 2020, p 12.

particular, that there is a lack of 'clear evidence that Traditional Owners have provided Free, Prior and Informed Consent (FPIC) for the proposal to proceed'.¹²²

4.32 DAWE also spoke of concerns related to ongoing public comments by Aboriginal people about their concerns not being adequately addressed by the assessment process, the adequacy of surveys, the process for assessing significance of Aboriginal Cultural Heritage, and compliance with the GBMHA Strategic Plan.¹²³

4.33 Specifically, DAWE addressed the question of the adequacy of the field survey stating:

The Department also considers that the sampling strategy and the percentage of the area surveyed ... to be inadequate [and] ... 27 per cent of the approximate 5280-hectare project area was surveyed. A high density of sites was located, which indicated that it is possible that 1213 sites could be present and affected by the proposed action.¹²⁴

4.34 DAWE also raised the impact of the 2019/2020 bushfires on the assessment, highlighting the fact that the field surveys underpinning the Aboriginal Cultural Heritage Assessment were conducted before the fires. As a result, it recommended that Water NSW 're-conduct comprehensive heritage surveys ... [given that] the cultural landscape may have been significantly altered following the 2019-2020 bushfires'.¹²⁵

4.35 In addition, DAWE echoed the concerns of the RAPs in terms of how the significance of identified cultural heritage sites were determined, and stated that 'Indigenous heritage sites and their respective significance should be determined by the Traditional Owners and their representative bodies'.¹²⁶

4.36 DAWE also identified a 'lack of understanding of the cultural heritage values' within the GBMWA, as reiterated in the GBMWA Strategic Plan Addendum 2016, and put forward the following recommendation:

¹²² Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 1, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹²³ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, pp 1-2, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹²⁴ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 2, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹²⁵ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 1, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹²⁶ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 1, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

Given this acknowledgement of the presence and lack of knowledge of cultural heritage values in this area, it is important that they be, as best as possible, effectively understood, surveyed and appropriately protected in situ, with the cultural importance of the sites determined by the traditional owners.¹²⁷

4.37 Further, DAWE noted the proposals by Water NSW to ameliorate unavoidable impacts of the proposal but made clear that 'these cannot substitute for in-situ (on-Country) conservation of Indigenous cultural heritage.' It also noted that 'the use of environmental offsets are not to replace proper on-site practices, such as avoidance and mitigation.'¹²⁸

4.38 DAWE expressed concerns in relation to several of the RAPs considering the proposal 'as an unacceptable impact to Aboriginal cultural heritage values', and would be

inconsistent with the requirement of Traditional Owners, and persons with rights or interests to "fully participate in planning, and decision-making" as articulated in the *Greater Blue Mountains World Heritage Area Strategic Plan Addendum 2016* for the Gundungurra Indigenous Land Use Agreement.¹²⁹

4.39 The DAWE assessment included a number of recommendations, including that:

- Further evidence of engagement with Traditional Owners has informed the significance of the cultural landscape is required ...
- ... the Proponent re-conduct comprehensive heritage surveys, with full engagement of the Traditional Owners ...
- Water NSW should conduct further studies to meet requirements of the *Code of Practice for Archeological Investigation of Aboriginal Objects in NSW* ...
- ... Indigenous heritage site and their respective significance should be determined by the Traditional Owners and their representative bodies.
- ... Water NSW works together with the Department and NSW DPIE to develop an action plan for the Aboriginal Cultural Heritage Assessment Report to be made adequate, culturally focussed with views of stakeholders incorporated and addressed.¹³⁰

¹²⁷ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 4, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹²⁸ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 5, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹²⁹ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, p 8, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

¹³⁰ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS Aboriginal Cultural Heritage Assessment Report, 10 June 2020, pp 1-2, <https://www.abc.net.au/news/2020-09-12/report-slams-waragamba-dam-raised-wall-plans-indigenous-heritage/12656878>

Responses by NSW National Parks and Wildlife Service

- 4.40 The NSW National Parks and Wildlife Service (NPWS) raised concerns about the Aboriginal Cultural Heritage Assessment in the context of the integrity component of Outstanding Universal Values (OUV) of the world heritage listing of the GBMWhA. The concerns echoed those of RAPs being critical of the 'scientific value' attributed to assessed sites while failing to address the 'cultural context' of the impact on the integrity of the OUV of the GBMWhA.¹³¹
- 4.41 The NPWS consistency comments stated: "The EIS deals with Aboriginal Heritage as part of integrity in a way that refers to numbers of sites impacted and the "scientific value" of the Aboriginal heritage, ranking sites into levels of scientific value ... rather than addressing the broader issue of "cultural context" as per the statement of OUV".¹³²
- 4.42 NPWS also questioned the proposed impact mitigations in the assessment, namely related to recording impacted sites and ongoing heritage assessment work in the wider GBMWhA stating: "It is not clear registered Aboriginal parties (RAPs) have had input into these mitigations and how this does, or does not, affect and impact on the Integrity of the property".¹³³

Heritage NSW criticisms of the project

- 4.43 On 24 January 2021 the *Sun Herald* reported on a leaked briefing to the Hon Don Harwin MLC, Minister for Aboriginal Affairs outlining concerns raised by Heritage NSW. The briefing note was undated but referred to meetings as late as August 2020.¹³⁴
- 4.44 The purpose of the briefing note was to inform the Minister that 'Heritage NSW (HNSW) has found the EIS to be inadequate. HNSW has provided comments to assist with improving the document and is working with Water NSW to have these adopted'.¹³⁵ Those comments were included as an attachment to the Briefing.
- 4.45 The concerns raised by HNSW mirrored those of other agencies and RAPs, namely:
- inadequate consultation
 - clear opposition from the Aboriginal community

¹³¹ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 12, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹³² NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 12, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹³³ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 12, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹³⁴ The briefing note was obtained under GIPA and provided to the committee and published on the committee website on 18 February 2021. Tabled document, NSW Department of Premier and Cabinet, Briefing for the Minister – Warragamba Dam Wall and EIS issues.

¹³⁵ Tabled document, NSW Department of Premier and Cabinet, Briefing for the Minister – Warragamba Dam Wall and EIS issues, p 1.

- the limited scope of the field work,
 - inadequate assessment of cultural values, and in particular
 - the failure to assess the broader cultural landscape, the need for additional work to assess the impact of the bushfires on the cultural values of the area.¹³⁶
- 4.46 The briefing note highlighted that '[n]umerous issues regarding the EIS have been raised since 2018 and these have not been addressed in a proactive manner by WaterNSW.'¹³⁷
- 4.47 HNSW made a number of recommendations on the EIS including:
- A stand-alone anthropological report to address identification and assessment of cultural values, how they relate to archaeology and landscape and the impact of the proposal on cultural values.
 - Further archaeological assessment of potential deposits (PADS), specific site types including further comparative analysis and the impact of flooding both temporary and permanent on the archaeological record.
 - Development of a cultural heritage management plan (CHMP) plan prior to submission.¹³⁸

Recent comments by the Insurance Industry regarding Aboriginal Cultural Heritage

- 4.48 As outlined at 2.43, on 15 February 2021, the Insurance Council of Australia indicated they had met with Traditional Owners and other stakeholders about the project and indicated that:

Informed by this, the position of the general insurance industry is now that without satisfactory environmental and cultural heritage impact assessments being completed and made public to allow for full and open assessment, the industry is unable to support the proposal as it currently stands. We would advocate for the exploration of alternative mitigation options to reduce flood risks for downstream communities in consultation with the industry and traditional owners.¹³⁹

Committee comment

- 4.49 The committee understands the frustration expressed by Traditional Owners and other Aboriginal people that their concerns about the impact of this proposal on their cultural heritage have not been acknowledged.

¹³⁶ Tabled document, NSW Department of Premier and Cabinet, Briefing for the Minister – Warragamba Dam Wall and EIS issues, p 2.

¹³⁷ Tabled document, NSW Department of Premier and Cabinet, Briefing for the Minister – Warragamba Dam Wall and EIS issues, p 1.

¹³⁸ Tabled document, NSW Department of Premier and Cabinet, Briefing for the Minister – Warragamba Dam Wall and EIS issues, p 2.

¹³⁹ Correspondence from Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, to Chair, 15 February 2021.

- 4.50 Based on the evidence provided, the committee is concerned that the proposal to raise the dam wall is inconsistent with the Gundungurra Indigenous Land Use Agreement and that the Aboriginal Cultural Heritage Assessment has not complied with the Burra Charter. Given this, the committee recommends that the government not proceed with the project should Registered Aboriginal Parties not give free, prior and informed consent for the project to proceed, as required in advice provided to the NSW Government by the Commonwealth Department of Agriculture, Water and Environment.

Recommendation 11

That the NSW Government not proceed with the Warragamba Dam wall raising project should Registered Aboriginal Parties not give free, prior and informed consent for the project to proceed, as required in advice provided to the NSW Government by the Commonwealth Department of Agriculture, Water and Environment.

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- 4.51 The committee notes Recommendation 3 of the report of the Standing Committee on Regional Development inquiry into the provisions of the Water NSW Amendment (Warragamba Dam) Bill 2018 included a recommendation to 'allow for adequate time to conduct survey mapping for Aboriginal heritage in the impacted areas.' The committee also notes the response of the Government to that report that 'all efforts will be made to complete the process according to best practice'. The committee considers that the Government has failed to deliver on this commitment.
- 4.52 The committee notes that the responses by the Commonwealth Department of Agriculture, Water and the Environment, NSW National Parks and Wildlife Service and Heritage NSW largely mirror those of Registered Aboriginal Parties and other experts in regards to the shortcomings of the Aboriginal Cultural Heritage Assessment process and findings, namely:
- the lack of consultation
 - the inadequacy of the field surveys and compliance with the assessment methodology
 - the failure to involve Aboriginal people in the assessment of significance of sites identified, and
 - the failure to assess the broader cultural context of the impacts of the proposal.
- 4.53 The committee also notes that there has been no public response by the proponent Water NSW or the NSW Government to date about how the gaps identified will be addressed, through additional assessments recommended by multiple parties or further commitments to additional assessments.
- 4.54 Therefore, the committee urges the NSW Government to respond to the concerns raised by the Registered Aboriginal Parties about the failure of the field surveys to comply with the assessment methodology during this inquiry.
- 4.55 Further, the committee urges Water NSW to conduct further Aboriginal Cultural Heritage Assessment, including additional field surveys, to address the concerns raised by stakeholders and agencies, particularly in relation to the adequacy of field surveys, and post fire assessment,

as well as demonstrating the agreement of RAPs in the significance assessment of sites, and the need for a broader cultural impact assessment of the project.

Recommendation 12

That Water NSW conduct further Aboriginal Cultural Heritage Assessment, including additional field surveys, to address the concerns raised by stakeholders and agencies, particularly in relation to the adequacy of field surveys, and post fire assessment, as well as demonstrating the agreement of RAPs in the significance assessment of sites, and the need for a broader cultural impact assessment of the project.

4.56 In addition, the committee calls on the government, in the final Environmental Impact Statement, to clearly demonstrate how the Aboriginal Cultural Heritage Assessment for the project complies with all current guidelines identified in the SEARs, including the:

- *Burra Charter*
 - *Gundungurra Indigenous Land Use Agreement*
 - Office of Environment and Heritage's *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW* (2011), and
 - Department of Environment, Climate Change and Water NSW's *Aboriginal Cultural Heritage Consultation requirements for proponents* (2010).
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Recommendation 13

That the NSW Government, in the final Environmental Impact Statement, clearly demonstrate how the Aboriginal Cultural Heritage Assessment for the Warragamba Dam wall raising project complies with all current guidelines identified in the SEARs, including the:

- Burra Charter
 - Gundungurra Indigenous Land Use Agreement
 - Office of Environment and Heritage's Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (2011)
 - Department of Environment, Climate Change and Water NSW's Aboriginal Cultural Heritage Consultation requirements for proponents (2010).
-

4.57 The committee notes the recent public statements by the insurance industry, especially the Insurance Council of Australia, raising concerns about the adequacy of the cultural heritage assessment for the project and their advocacy for alternative mitigation options to reduce flood risks other than the wall raising proposal.

Chapter 5 Biodiversity impacts

This chapter examines the adequacy of the ecological assessment as it relates to upstream impacts as part of the development of the EIS. It also specifically considers how biodiversity offsets requirements are being addressed.

Context

- 5.1 The Water NSW Amendment (Warragamba Dam) Bill 2018 assented on 26 October 2018 allowed for the temporary inundation of national park land resulting from the Warragamba Dam project only if an environmental management plan, prepared by Water NSW and approved by the Minister administering the NPW Act with the concurrence of the Minister administering the Water NSW Act is in force.¹⁴⁰
- 5.2 The National Parks and Wildlife Service (NPWS) manages 320,656 ha of the 905,000 ha of the total Warragamba Dam catchment area. NPWS assessed that 267,149 ha or 83% of this area burnt in 2019/20 with over 100,000 ha suffering high or extreme severity burn. This affected 45 plants species listed as vulnerable or endangered and 9 that have sole or significant populations in the catchment.¹⁴¹ The fire occurred after the field work for the development of the EIS was conducted.

Biodiversity Impact Assessment process

- 5.3 In addition to the ecological impacts associated with the World Heritage listing of the GMBWHA, there are broader biodiversity impacts associated with the project including on the Blue Mountains National Park not inside the World Heritage area, and on upstream aquatic environments like Kowmung River which is a recognised Wild River under the *National Parks and Wildlife Act 1974*.¹⁴²
- 5.4 Part 6 and Part 10 of the SEAR's outline the requirements to be addressed in the EIS in relation to Biodiversity and Protected and Sensitive Lands which are the two main sections related to the assessment of biodiversity impacts from the project. These parts of the SEARs require the proponent to:
- assess biodiversity impacts in accordance with the current guidelines including the Framework for Biodiversity Assessment (FBA)
 - assess impacts on endangered ecological communities (EECs), threatened species and/or populations as specified in an attachment to the document.

¹⁴⁰ *Water NSW Amendment (Warragamba Dam) Act 2018*

¹⁴¹ Tabled document, NSW National Parks and Wildlife Service, Warragamba Catchment 2019/20 Fire Impacts, p 1.

¹⁴² *National Parks and Wildlife Act 1974*

- assess the impacts of the project on the water catchment including as it relates to protected areas such as National Parks, Key Fish Habitat, land or waters identified as Critical Habitat and biobank sites, private conservation lands and other lands identified as offsets.¹⁴³
- 5.5 The NSW Government outlined its approach to assessing biodiversity impacts from the project, which includes:
- Comprehensive ecological studies have been undertaken to assess the impacts of a temporary increase in upstream inundation as a result of the proposal to raise Warragamba Dam for flood mitigation. This includes assessing impacts on threatened plant, animals and ecosystems, and identifying measures to mitigate impacts where possible.
 - The impact of flooding on wild rivers is also being considered. There is one designated wild river in the Warragamba Dam catchment – the Kowmung River
 - Over 3000 hours of field surveys have been completed and the impact assessment is being undertaken in accordance with the Framework for Biodiversity Assessment.¹⁴⁴
- 5.6 Despite the Framework for Biodiversity Assessment underpinning the 'biodiversity offsets policy for major projects'¹⁴⁵ in NSW, in its submission to the inquiry the NSW Government made no mention of specific biodiversity offsets in relation to the project.
- 5.7 As noted in section 1.23, efforts of the Legislative Council to gain access to information regarding biodiversity offsets for the project were largely unsuccessful as the Government has considered this information 'cabinet-in confidence'.
- 5.8 Given the World Heritage listing of the GBMWhA is fundamentally linked to the biodiversity values in the area, there is substantial cross-over in the comments from agencies about the draft EIS between the world heritage and biodiversity assessment. One of the themes in the comments from agencies about the biodiversity assessment related to biodiversity offsets which was not dealt with at all in the Government submission.¹⁴⁶

¹⁴³ NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements, 13 March 2018, pp 5 and 11, <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120200629T002934.658%20GMT>

¹⁴⁴ Submission 237, NSW Government, p 18.

¹⁴⁵ NSW Department of Planning, Industry and Environment, Framework for Biodiversity Assessment, September 2014, p 2, <https://www.environment.nsw.gov.au/research-and-publications/publications-search/framework-for-biodiversity-assessment>.

¹⁴⁶ UNESCO, Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, pp 3-4, <https://whc.unesco.org/archive/convention-en.pdf>.

Adequacy of Biodiversity Impact Assessment

- 5.9 As noted in Chapter 3, on 9 August 2020 the *Sydney Morning Herald* published a leaked document prepared by the NSW National Parks and Wildlife Service (NPWS) entitled, 'Warragamba Dam EIS consistency review: NPWS comments'.¹⁴⁷
- 5.10 The document outlined critical areas NPWS considered to not be adequately addressed in the EIS, as required by the SEARs including in relation to the impacts of the project on protected area values and in relation to offsets. Offsets and the impacts of the 2019/2020 bushfires will be dealt with more fully in separate sections.¹⁴⁸
- 5.11 Specifically, other than in relation to biodiversity offsets, NPWS identified gaps in the draft EIS in how the values of the land as part of the protected area system was assessed and would be offset. NPWS commented that '[t]his requirement is additional to any biodiversity offsets or preparation of the Environmental Management Plan (EMP) for National Parks...'¹⁴⁹
- 5.12 NPWS recommended that the EIS needs to '[r]ecognise that land within the protected area system has value in its own right (ie. because it was purposely set aside for permanent conservation protection) ... [and] [a]ssess impacts to the protected area values of that land.'¹⁵⁰
- 5.13 NPWS also raised concerns about how the impact of the 2019/2020 bushfires has affected the value of the biodiversity field surveys which underpinned the biodiversity impact assessment in the EIS. It stated that:
- [t]he EIS acknowledges the disproportionate impact of the fires to both threatened and non-threatened species, and refers to DPIE assessment guidance issued in March 2020. The EIS concludes that no further assessment is required, but provides no specific assessment against the March 2020 guidelines to demonstrate how this conclusion was reached.¹⁵¹
- 5.14 Given this, NPWS recommended that '[t]he EIS should include clear and detailed information to identify how the March 2020 guidelines have been considered, in order to support any

¹⁴⁷ Peter Hannam, 'Warragamba Dam environment plan 'not valid', government agency finds', *Sydney Morning Herald*, 9 August 2020, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁴⁸ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁴⁹ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 1, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁵⁰ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 2, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁵¹ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 3, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

decision to do no further assessment despite the extensive impacts arising from the 2019-20 bushfires.¹⁵²

- 5.15** As previously noted in Chapter 3, the *Comments on the Warragamba Dam Raising Draft EIS: World Heritage Assessment* by the Commonwealth Department of Agriculture, Water and Environment, addressed biodiversity concerns given that biodiversity is a fundamental component of the Outstanding Universal Value of the GBMWA. DAWE's overall finding was that 'the proposal has not been adequately assessed for the impacts on the World Heritage Area's National and World Heritage Values and Outstanding Universal Values'.¹⁵³
- 5.16** DAWE indicated that while species listed as threatened species under State and Commonwealth law have been assessed, it identified that 'several species, genera and families are [Matters of National Environmental Significance in the study area because they are attributes of Outstanding Universal Value of the Greater Blue Mountains Area World Heritage' and that:
- some species have been assessed individually ... However, it would be good to see a more comprehensive assessment of which species that are members of these taxa occur in the study area and how they may be impacted by the proposed project.¹⁵⁴
- 5.17** DAWE was particularly critical of the omission of any assessment on the impact on the platypus in the draft EIS, given its importance as an aquatic animal, and that 'both its food supply ... and nesting habitat ... are likely to be impacted both upstream and downstream of the project'.¹⁵⁵
- 5.18** This was in addition to criticisms regarding the failure to broadly assess likely impacts of the proposal on aquatic macroinvertebrate populations, with the EIS only assessing two threatened species. This is despite the impact on general populations being relevant to habitat quality for other species like the platypus and EPBC listed Macquarie Perch and Blue Mountains Perch.¹⁵⁶

¹⁵² NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 3, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁵³ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, p 3 <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

¹⁵⁴ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, p 3 <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

¹⁵⁵ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, p 3 <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

¹⁵⁶ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, pp 3-4, <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

- 5.19 DAWE also expressed concern that eucalypt diversity is only discussed in terms of *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) listed species and does not address the loss of diversity of eucalypts in general as a result of the proposal.¹⁵⁷
- 5.20 DAWE concluded that while '[t]he Biodiversity Upstream chapter includes thorough detail on biodiversity within the project proposal footprint ... There is a large area of threatened species/communities within this footprint that have a potential for serious and irreversible impacts'.¹⁵⁸
- 5.21 In further comments on the Warragamba Dam Raising Draft EIS: Biodiversity Offset Strategy, dated 15 June 2020, which goes into more detail as it relates to the assessment and offset proposals for the impacts of the project on species and ecological communities listed as threatened under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC). DAWE was critical about the methodology for assessing the impact of *Environmental Protection and Biodiversity Conservation Act 1999* species, including the proposal in the draft EIS to:

monitor the impact following an inundation event to determine species impact is not acceptable as it depends on the adequacy of baseline surveys and monitoring for a broad range of species. The EIS has stated that surveys were not possible for a large part of the project area due to limited access.¹⁵⁹

Biodiversity offset strategy

- 5.22 Substantial criticism by NPWS and DAWE was directed at the Biodiversity Offset Strategy for the Warragamba Dam wall raising project.
- 5.23 NPWS explained how the definition of the impacts from the proposal would affect the offset requirements for biodiversity impacts:

The EIS implies that the inundation of national park and World Heritage lands are an “indirect” impact of the proposal, as they occur as part of the “operational” phase of the project rather than during the construction phase ... NPWS understands that the characterisation of impacts as indirect would particularly affect the consideration of

¹⁵⁷ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, p 3, <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

¹⁵⁸ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS World Heritage Assessment, 10 June 2020, p 4, <https://www.theguardian.com/environment/2020/sep/18/nsw-government-ordered-to-revisit-world-heritage-assessments-for-warragamba-dam-expansion>

¹⁵⁹ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS: Biodiversity Offset Strategy, p 1, <https://www.smh.com.au/environment/conservation/unacceptable-federal-department-blasts-warragamba-dam-wall-plan-20200816-p55m5v.html>

mitigation or offset requirements for biodiversity impacts and is also concerned it may influence the consideration of other impacts.¹⁶⁰

- 5.24** NPWS was critical of this approach, stating: "This is not a valid description. It is clear that additional inundation will arise as a direct consequence of the project".¹⁶¹ As a result, it recommended that:

[r]elevant sections of the EIS should be reframed to clearly consider inundation as a direct impact on values ... [and that] The EIS should also clarify that all residual impacts - whether direct or indirect - will require comprehensive mitigation and offset arrangements.¹⁶²

- 5.25** The position of NPWS was supported by Dr Stephen Douglas, Consultant ecologist (BAM certified) and environmental planner, Ecological Surveys & Planning, who stated:

I would consider those impacts direct. I cannot see that there is any legitimate ecological argument to consider the flooding or inundation—call it what you will—to be indirect. It is very clearly a direct consequence of building the head wall extension. Any argument to claim that it is an indirect effect that would then arguably warrant less biodiversity offset calculations is simply self-serving. There is no scientific credibility to that at all.¹⁶³

- 5.26** DAWE made clear in its comments on the Biodiversity Offset Strategy that it 'considers that the current Biodiversity Offset Strategy proposed in the EIS is unclear and does not adequately offset the impacts to the EPC Act listed threatened species and ecological communities from the project'.¹⁶⁴

- 5.27** Specifically, DAWE noted that:

[t]here are key species with restricted distributions or breeding that may be significantly impacted (with increased risk of extinction) within the up[stream area and the Biodiversity Offsets Strategy does not address how these impacts will be offset or compensation ... Targeted actions should be identified for species with restricted distributions.¹⁶⁵

¹⁶⁰ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 1, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁶¹ NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 1, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁶² NSW National Parks and Wildlife Service, Warragamba Dam EIS consistency review, NPWS comments, p 1, <https://www.smh.com.au/environment/conservation/warragamba-dam-environment-plan-not-valid-government-agency-finds-20200808-p55jvm.html>

¹⁶³ Evidence, Dr Stephen Douglas, Consultant ecologist (BAM certified) and environmental planner, Ecological Surveys & Planning, 6 November 2020, p 19.

¹⁶⁴ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS: Biodiversity Offset Strategy, p 1, <https://www.smh.com.au/environment/conservation/unacceptable-federal-department-blasts-warragamba-dam-wall-plan-20200816-p55m5v.html>

¹⁶⁵ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS: Biodiversity Offset Strategy, p 2,

- 5.28 DAWE specified that it would 'seek offsets for impacts to nationally-listed species and communities to be secured through the endorsed NSW Biodiversity Offsets Scheme. The proposed offsets in the upstream area need explanation and justification for why the full commitment of offsets is not proposed'.¹⁶⁶

Comments by Minister Ayres relating to 'Environmental Terrorism'

- 5.29 On 6 November 2020, the Hon Stuart Ayres MP, Minister for Western Sydney gave a radio interview on 2GB during which he said in relation to the assessment process: 'We are not giving up any more time. We are not bowing to what is, for all intents and purposes, environmental terrorism'.¹⁶⁷
- 5.30 When questioned about these comments given his professional experience in assessing the environmental impacts of human decision, Dr Douglas replied that 'It borders on Trumpism. It is really denying the evidence to suit a purely political and personal agenda. His remarks have no credibility'.¹⁶⁸
- 5.31 During the Budget Estimates 2020-2021 hearing on 10 March 2021, Minister Ayres was further questioned about these comments. Minister Ayres explained that his reference to the term "environmental terrorism" was in relation to what he viewed was the 'complete neglect of residents who live downstream of the dam for the pure and unadulterated purpose of protecting the environment without having any reference or consequence to what it means to people's lives and properties downstream'.¹⁶⁹
- 5.32 Minister Ayres added that 'pro-environment groups' such as the Colong Foundation had made it 'abundantly clear' that they did 'not support flood mitigation in western Sydney' via their alleged 'attempts to delay and obfuscate and make life much harder for the Government to complete the EIS'.¹⁷⁰
- 5.33 While the Colong Foundation for Wilderness, in their submission to the inquiry, did state its opposition to the project, it also made a number of recommendations to the committee in

<https://www.smh.com.au/environment/conservation/unacceptable-federal-department-blasts-warragamba-dam-wall-plan-20200816-p55m5v.html>

¹⁶⁶ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS: Biodiversity Offset Strategy, p 1, <https://www.smh.com.au/environment/conservation/unacceptable-federal-department-blasts-warragamba-dam-wall-plan-20200816-p55m5v.html>

¹⁶⁷ The Ray Hadley Morning Show, 2GB, 6 November 2020, <https://www.2gb.com/environmental-terrorists-accused-of-risking-lives-and-property-in-nepean-valley/>.

¹⁶⁸ Evidence, Dr Stephen Douglas, Consultant ecologist (BAM certified) and environmental planner, Ecological Surveys & Planning, 6 November 2020, p 24.

¹⁶⁹ Evidence, Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney, 10 March 2021, p 10, <https://www.parliament.nsw.gov.au/lcdocs/transcripts/2537/Transcript%20-%2010%20March%202021%20-%20CORRECTED.pdf>.

¹⁷⁰ Evidence, Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney, 10 March 2021, p 20, <https://www.parliament.nsw.gov.au/lcdocs/transcripts/2537/Transcript%20-%2010%20March%202021%20-%20CORRECTED.pdf>.

regards to the inquiry process as it related to the environment, world heritage and Aboriginal Cultural Heritage assessment including:

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.¹⁷¹

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.¹⁷²

... 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.¹⁷³

...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.¹⁷⁴

Committee comment

- 5.34** The committee notes with concern the suggestion that upstream biodiversity impacts from the project may not be considered a direct impact for the purpose of determining biodiversity offset requirements, and that this would reduce the need to offset impacts on species and the values of the protected areas impacted by the project. This is especially concerning given the comments by the Commonwealth agency that some species face 'an increased risk of extinction' as a result of the project and that the proposed Biodiversity offsets Strategy 'does not address how these impacts will be offset or compensated'.¹⁷⁵
- 5.35** The committee therefore recommends that the final EIS assess the impacts to biodiversity, as a result of temporary inundation, as a 'direct impact' for the purposes of biodiversity offsets.

Recommendation 14

That the final Environmental Impact Statement assess the impacts to biodiversity, as a result of temporary inundation, for the purposes of biodiversity offsets.

¹⁷¹ Submission 369, Colong Foundation for Wilderness, p 3.

¹⁷² Submission 369, Colong Foundation for Wilderness, p 4.

¹⁷³ Submission 369, Colong Foundation for Wilderness, p 5.

¹⁷⁴ Submission 369, Colong Foundation for Wilderness, p 6.

¹⁷⁵ Department of Agriculture, Water and Environment, Comments on Warragamba Dam Raising Draft EIS: Bushfire Impact Analysis, p 2, <https://www.smh.com.au/interactive/hub/media/tearout-excerpt/289/20200813134713605.pdf>.

- 5.36** The committee acknowledges analysis by State and Commonwealth agencies in relation to the field surveys for key threatened species and ecological communities, including Regent honeyeaters, Platypus and Grassy Box woodlands, was inadequate. Given this, the committee calls on the government to implement all recommendations from the Commonwealth Department of Agriculture, Water and Environment and NSW National Parks and Wildlife Service regarding the biodiversity impact assessment and offsetting requirements for the project, including the need for further on-ground assessments.

Recommendation 15

That the NSW Government implement all recommendations from the Commonwealth Department of Agriculture, Water and Environment and NSW National Parks and Wildlife Service regarding to the biodiversity impact assessment and offsetting requirements for the project, including the need for further on-ground assessments.

-
- 5.37** Further, the committee understands that the government has not publicly responded to the concerns raised by State and Commonwealth agencies regarding the inadequacies of the biodiversity assessment, nor have they made clear the intention to do additional on-ground assessment to address the concerns raised by the agencies including how the 2019/2020 bushfires may have affected the biodiversity assessment.
- 5.38** As a result, the committee is of the view that Water NSW should conduct additional on-ground field surveys to evaluate the impact of the 2019/2020 fires on the impact assessment of the Warragamba Dam wall raising project on biodiversity and the broader protected area values.

Recommendation 16

That Water NSW conduct additional on-ground field surveys to evaluate the impact of the 2019/2020 fires on the impact assessment of the Warragamba Dam wall raising project on biodiversity and the broader protected area values.

-
- 5.39** The committee is appalled by the public statements of the Minister for Western Sydney, Stuart Ayres where he labeled persons associated with the campaign opposing the project as being engaged in “environmental terrorism” and notes that the concerns being raised by groups mentioned by the Minister as being opposed to the project reflect many of the same concerns raised by state and commonwealth authorities.

Appendix 1 Submissions

No.	Author	Attachment
1	Dr Margaret Lorang	
2	Public Service Association of NSW	
3	Mr Peter Maslen	
4	Mr Martin Fallding	
5	Ms Jennifer Cuthbertson	
6	Ms Gabrielle Duigu	
7	Mrs Shirley Goodbar	
8	Mrs Jan Touzeau	
9	Mr Dennis Nickell	
10	Name suppressed	
11	Mr Warren Birkinshaw	
12	Mr Neville Wilkinson	
12a	Mr Neville Wilkinson	
13	Blue Mountains Conservation Society Inc	
14	Coast and Mountain Walkers of NSW	
15	Dr Jim Smith	
16	Name suppressed	
17	Mr Steve Defina	
18	Mr Anthony Tucker	
19	Penrith City Council	
20	Name suppressed	
21	Ms Jane Gye	
22	Mrs Cindy Hickman	
23	Name suppressed	
24	Miss Jayde Woolridhe	
25	Name suppressed	
26	Mr Rob Pallin	
27	Confidential	
28	Name suppressed	
29	Miss Catherine Pallin	
30	Mrs Marcia Monteiro	

No.	Author	Attachment
31	Ms Kerry Coombs-Valeontis	
32	Dr Nicolas Rasmussen	
33	Mr Steve Schwarz	
34	Name suppressed	
35	Mrs Sally Humphrey	
36	Ms Silvana Franze	
37	Mr Robert Cantwell	
38	Name suppressed	
39	Mr Lindsay Somerville	
40	Mrs Gillian Wilde	
41	Mr Paul Knight	
42	Name suppressed	
43	Mr Andrew Waterhouse	
44	Name suppressed	
45	Mr Chris Maher	
46	Mrs Helen Ryan	
47	Name suppressed	
48	Mrs Leanne Ortiz	
49	Ms Nerida Wardrope	
50	Name suppressed	
51	Mrs Sandra Rotheraone	
52	Name suppressed	
53	Name suppressed	
54	Mr Peter Murphy	
55	Mr Christopher Rothwell	
56	Mrs Vandra Mellers	
57	Mr Grahame Edwards	
58	Name suppressed	
59	Mr Keith Binns	
60	Miss Lathalia Song	
61	Mr Tony Gasparre	
62	Mr David Halse Rogers	
63	Mr Bruce Cameron	
64	Ms Lois Simpson	
65	Ms Barbara Bryan	

No.	Author	Attachment
66	Name suppressed	
67	Name suppressed	
68	Mr Patrick Thompson	
69	Mr Geoff Walker	
69a	Mr Geoff Walker	
70	Mr Steven Hare	
71	Ms Sarah Falzon	
72	Name suppressed	
73	Ms Claire Nakazawa	
74	Mr Richard Maschmeyer	
75	Ms Maria Arranz	
76	Ms Alison Black	
77	Miss Rebecca Reynolds	
78	Mrs Lynette Edwards	
79	Name suppressed	
80	Mr Benjamin Webb	
81	Name suppressed	
82	Confidential	
83	Ms Pippa Robinson	
84	Name suppressed	
85	Name suppressed	
86	Ms Abigail Humphreys	
87	Mrs Ingrid Ralph	
88	Name suppressed	
89	Name suppressed	
90	Name suppressed	
91	Mr Lachlan Penninkilampi	
92	Ms Yvonne Lollback	
93	Confidential	
94	Ms Susan Douglas	
95	Name suppressed	
96	Mr Thomas Ebersoll	
97	Mrs Maria Bradley	
98	Name suppressed	
99	Ms Elizabeth Gentle	

No.	Author	Attachment
100	Name suppressed	
101	Confidential	
102	Mrs Simone Wilks	
103	Name suppressed	
104	Miss Gwenda Lister	
105	Ms Megan Benson	
106	Name suppressed	
107	Mr Peter Morris	
108	Mr Malcolm Fisher	
109	Mr Klaus Birkner	
110	Miss Natalie Duncan	
111	Dr Gregory Buckman	
112	Mr Alan Peterson	
113	Mr Bill Rookyard	
114	Ms Gina Richter	
115	Mr James Stone	
116	Ms Ifeanna Tooth	
117	Mr Graeme Jessup	
118	Mrs Fiona Bullivant	
119	Name suppressed	
120	Mrs Michelle Halliday	
121	Ms Carolyn Ienna	
122	Name suppressed	
123	The Hon Robert (Bob) Debus	
124	Name suppressed	
125	Mr Geoff Brown	
126	Ms Angela Michaelis	
127	Name suppressed	
128	Mr Hugh Ward	
129	Ms Julie Young	
130	Miss Jessica McKenna	
131	Mr Hassib Lahoud	
132	Mr Simon Harris	
133	Confidential	
134	Name suppressed	

No.	Author	Attachment
135	Name suppressed	
136	Ms Ariella Brosan	
137	Ms Victoria Waldron-Hahn (partially confidential)	
138	Mr Matthew Loft	
139	Mr Lucas Stanton	
140	Name suppressed	
141	Mr Ben Burdett	
142	Mr Roman Bures	
143	Mr Robert Ebsworth	
144	Ms Jenny McLaughlin	
145	Name suppressed	
146	Ms Glenda Odgers (partially confidential)	
147	Mrs Julie Barnes	
148	Confidential	
149	Name suppressed	
150	Mr James Stuart	
151	Mr Jason Quinton	
152	Name suppressed	
153	Name suppressed	
154	Ms Helen Grunow	
155	Name suppressed	
156	Mulgoa Valley Landcare Group	
157	Ms Barbara Lepani	
158	Ms Josephine Roper	
159	Mr Yuri Bolotin	
160	Name suppressed	
161	Name suppressed	
162	Name suppressed	
163	Ms Su Morley	
164	Name suppressed	
165	Ms Christine Carmichael	
166	Mr Edward Hartley (partially confidential)	
167	Name suppressed	
168	Mr Bastiaan van Dalen	
169	Ms Carol Pasenow	

No.	Author	Attachment
170	Mrs Marie Morris	
171	Name suppressed	
172	Ms Leonie Waldron	
173	Mrs Yvonne Lollback	
174	Healthy Rivers Dubbo	
175	Name suppressed	
176	Mrs Astrid Pickup	
177	Mr Colin Double	
178	Mr Dennis Ashton	
179	Name suppressed	
180	Name suppressed	
181	Ms Margaret Stepniewski	
182	Ms Mora Main	
183	Mr Wayne Olling	
184	Name suppressed	
185	Ms Kelly Keith	
186	Name suppressed	
187	Name suppressed	
188	Name suppressed	
189	Mr Jon Coughlin	
190	Name suppressed	
191	Mrs Margaret Carmody	
192	Name suppressed	
193	Mr Nick Baldas	
194	Don Owers	
195	Mr Rolf Wood	
196	Name suppressed	
197	Mr Stuart Hickson	
198	Mrs Marie Jeanette Hutchison	
199	Mr Philip Merriman	
200	Name suppressed	
201	Name suppressed	
202	Name suppressed	
203	Dr Eileen Whitehead	
204	Name suppressed	

No.	Author	Attachment
205	Mrs Cita Murphy	
206	Ms Shirley Dean	
207	Ms Caro Ryan	
208	Mr Ross Stewart	
209	Name suppressed	
210	Name suppressed	
211	Ryde Hunters Hill Flora & Fauna Preservation Society Inc	
212	Ms Kazan Brown	
213	Blue Mtns Peackeepers	
214	Blue Mountains City Council	
215	Cumberland Bird Observers Club Inc	
216	Friends of Ku-ring-gai Environment (FOKE)	
217	Friends of the Colo Inc.	
218	STEP Inc	
219	Bushwalking NSW	
220	Hawkesbury Environment Network	
221	Canberra Bushwalking Club	
222	Bankstown Bushland Society Inc	
223	Saving Sydneys Trees	
224	Dr Kelvin Knox	
225	Mr David Noble	
226	Hawkesbury Nepean Community Action Committee	
227	Ms Stephanie Knox	
228	Confidential	
229	Rivers without Boundaries International Coalition	
230	Ms Sue Gay	
231	Ms Jen Powers	
232	Mr George Dionyssopoulos	
233	Confidential	
234	Ecological Surveys & Planning	
235	Mr Stephen Gale	
236	Mr Peter Prineas	
237	NSW Government	
238	Oatley Flora and Fauna Conservation Society Inc.	
239	BirdLife Australia	

No.	Author	Attachment
240	Wollondilly Shire Council	
241	The National Trust of Australia (NSW)	
242	Ms Megan Hyatt	
243	Mr Chris Port	
244	Name suppressed	
245	Ms Colleen Fagan	
246	Ms Sally Gaunt	
247	Mr Robert Binns	
248	Name suppressed	
249	Mrs Gaye Cameron	
250	Cr Daniel Myles	
251	Mr Joel Robinson	
252	National Parks Association of NSW	
253	Mr Ramsay Moodie	
254	Mr Pavel Novak	
255	Mr Ian Tanner	
256	Pitt Town Progress Association Inc.	
257	Ms Robin Buchanan	
258	Name suppressed	
259	Confidential	
260	Mrs Hilary Da Costa	
261	Mr Joe Wachter	
262	Name suppressed	
263	Yerranderie Management Committee	
264	Mr Jeffrey Ray	
265	Ms Fleur Thompson	
266	Ms Lani Imhof (partially confidential)	
267	Mr Patrick Lloyd	
268	Mr Carlos Catano	
269	Mr David Ongley	
270	Mr James Sharp	
271	Name suppressed	
272	Name suppressed	
273	Mr Charles David Maddocks	
274	Mr Gregory Bell	

No.	Author	Attachment
275	Mr Daniel Lewis	
276	Ms Cathy Merchant	
277	Rev Frank Richardson	
278	Ms Susan Ambler	
279	Ms Pauline Croxon (partially confidential)	
280	Name suppressed	
281	Ms Margot Turner	
282	Name suppressed	
283	Mr David Flynn	
284	Dr Anthony Green	
285	Name suppressed	
286	Jillian Napier	
287	Mr Don Le Quesne	
288	Ms Maria Dunne	
289	Ms Nicole McGregor	
290	Miss Narelle Lord	
291	Ms Lucy Keatinge	
292	Dr Michael Phipps (partially confidential)	
293	Mr Robert Anderson	
294	Ms Veronica Stephenson (partially confidential)	
295	Mr John Holliday	
296	Ms Helen Mackay	
297	Name suppressed	
298	Miss Eva Kiss	
299	Name suppressed	
300	Name suppressed	
301	Ms Trish Doyle MP	
302	Ms Elizabeth Dudley-Bestow	
303	Mr Stuart Paterson	
304	Miss Jardine Hansen	
305	Ms Marieann Duncan (partially confidential)	
306	Name suppressed	
307	Ms Lilian Wycisk	
308	Name suppressed	
309	Mr Matthew Riley	

No.	Author	Attachment
310	Dr Kelvin Montagu and Ms Elizabeth Saunders	
311	Ms Monica Holm	
312	Mrs Sarah Moraschi	
313	Mr Daniel Weber	
314	Miss Lotte Weber	
315	Mr Tom Fawcett	
316	Name suppressed	
317	Mr Ian Brodie-Reed et al	
318	Name suppressed	
319	Confidential	
320	Mr Mitchell Jacques	
321	Mr Christopher James Halls	
322	Mrs Maureen Ward	
323	Mr David Rostron	
324	Ms Frennie Beytagh	
325	Mr Damien Duncan	
326	Mr John Robens	
327	Name suppressed	
328	Mr Graham Lalchere	
329	Ms Adrienne Shilling	
330	Mr Peter Boyd and Ms Alison Clouston	
331	Dr Susan Hemsley	
332	Dr Martin Schulz	
333	Confidential	
334	Name suppressed	
335	Dr Jennifer Gill	
336	Mr Andrew Macqueen	
337	Dr Ian Wright	
338	Name suppressed	
339	Mr Matthew Clouston	
340	Mr Michael Loveday	
341	Name suppressed	
342	Meron Wilson	
343	Dr Neil Perry	
344	Mr Thomas Colley	

No.	Author	Attachment
345	Confidential	
346	Ms Cynthia Turner	
347	Australian Museum	
348	Mr Joel Dalberger	
349	Professor Stuart Khan	
350	Name suppressed	
351	Professor Grace Karskens	
352	Name suppressed	
353	Name suppressed	
354	Name suppressed	
355	Mr Ryan Hawken	
356	Mr Stephen Craft	
357	Mr John Boyle	
358	Name suppressed	
359	Dr Samantha Critchley	
360	Name suppressed	
361	Ms Heather Gray	
362	Dr Chas Keys	
363	Mr Paul Stephen	
364	Professor Jamie Pittock	1
365	Mr James Scanlon	
366	Name suppressed	
367	Ms Gisela Kaplan	
368	Dr Ross Crates et al	
369	Colong Foundation for Wilderness (partially confidential)	1
370	Confidential	
371	Name suppressed	
372	Confidential	
373	Confidential	
374	Illawarra Local Aboriginal Land Council	
375	Insurance Council of Australia	
376	Name suppressed	
377	Name suppressed	
378	Ms Janine Kitson	
379	Mrs Louise Crouchley	

No.	Author	Attachment
380	Ms Gillian Fitzgerald	
381	Dr Susan Cochrane and Mr Michel Bonnefis	
382	Ms Beverley Inshaw	
383	Associate Professor Barry Croke	
384	Australia ICOMOS	
385	Mr Peter M Allen	
386	Committee for Sydney	

Appendix 2 Witnesses at hearings

Date	Name	Position and Organisation
Monday 25 November 2019 Windsor Function Centre Windsor	Mr Simon Draper	Chief Executive Officer, Infrastructure NSW
	Ms Maree Abood	Head, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW
	Mr Andrew George	Executive Manager, Water Solutions and Market Strategy, WaterNSW
	Mr Colin Langford	Director, North-West Precinct - Greater Sydney Division Roads and Maritime Service, Transport for NSW
	Mr Brett Whitworth	Deputy Secretary, Greater Sydney, Place & Infrastructure, Department of Planning, Industry and Environment
	Assistant Commissioner Paul Bailey	NSW State Emergency Service
	Mr Peter Cinque	Principal Advisor Hawkesbury- Nepean, NSW State Emergency Service
	Associate Professor Barry Croke (<i>via teleconference</i>)	Senior Lecturer, Mathematical Sciences Institute, Australian National University
	Dr Chas Keys	Former Deputy Director-General, State Emergency Service
	Professor Jamie Pittock	Fenner School of Environment and Society, Australian National University
	Councillor Matt Gould	Councillor, Wollondilly Shire Council
	Ms Alexandra Stengl	Manager Environmental Outcomes, Wollondilly Shire Council
Mr Wayne Mitchell	Director - Development and Regulatory Services, Penrith City Council	
Councillor Barry Calvert	Mayor, Hawkesbury City Council	

Date	Name	Position and Organisation
	Mr Andrew Kearns	Manager Strategic Planning, Hawkesbury City Council
	Councillor Mark Greenhill OAM <i>(via teleconference)</i>	Mayor, Blue Mountains City Council
	Mr Nick Rigby	Environment Manager, Blue Mountains City Council
Tuesday 30 June 2020 Macquarie Room Parliament House	Mr Peter Cinque	Principal Advisor, Hawkesbury- Nepean Strategy, NSW State Emergency Service
	Mr Simon Draper	Chief Executive Officer, Infrastructure NSW
	Ms Maree Abood	Head of Hawkesbury-Nepean Valley Flood Risk Directorate, Infrastructure NSW
	Mr Daniel Austin	Deputy Commissioner, Operations, NSW State Emergency Service
	Mr Mark Babister	Managing Director, WMAwater
	Ms Fiona Smith	Executive Manager, Water Catchment Protection, WaterNSW
	Mr David Harper	Program Director, Major Projects, WaterNSW
	Mr David Gainsford	Executive Director, Infrastructure Assessments, Department of Planning, Industry and Environment
	Mr Atticus Fleming	Deputy Secretary, National Parks and Wildlife Service
Friday 28 August 2020 Macquarie Room Parliament House	Mr Simon Draper	Chief Executive Officer, Infrastructure NSW
	Ms Maree Abood	Head of Hawkesbury-Nepean Valley Flood Risk Directorate, Infrastructure NSW
	Mr David Harper	Program Director Major Projects, WaterNSW
	Mr David Gainsford	Executive Director, Infrastructure Assessments, Department of Planning, Industry and Environment

Date	Name	Position and Organisation
	Mr Atticus Fleming	Deputy Secretary, National Parks and Wildlife Service
Friday 6 November 2020 Jubilee Room Parliament House	Mr Paul Knight	Chief Executive Officer, Illawarra Local Aboriginal Land Council
	Aunty Sharyn Halls	Gundungurra Elder
	Mr Daniel Chalker <i>(via videoconference)</i>	Indigenous representative
	Ms Helen Lardner <i>(via videoconference)</i>	President, Australia ICOMOS
	Ms Kazan Brown <i>(via videoconference)</i>	Gundungurra traditional owner
	Ms Taylor Clarke <i>(via videoconference)</i>	Gundungurra traditional owner
	Mr Michael Jackson <i>(via videoconference)</i>	Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology
	Dr Steven Douglas <i>(via videoconference)</i>	Consultant ecologist (BAM certified) and environmental planner, Ecological Surveys & Planning
	Prof Jamie Kirkpatrick <i>(via videoconference)</i>	Geography and Spatial Sciences, University of Tasmania
	Mr Eugene Simonov <i>(via videoconference)</i>	Doctor of Conservation and Coordinator, Rivers without Boundaries International Coalition
	Mr Sai Khur Hseng <i>(via videoconference)</i>	Coordinator of Shan Sapawa Environmental Organisation in Myanmar and Member, Rivers without Boundaries International Coalition
Monday 7 June 2021 Jubilee Room Parliament House	Mr Peter Cinque	Principal Advisor, Hawkesbury-Nepean Strategy, NSW State Emergency Service
	Mr Daniel Austin	Deputy Commissioner, Operations, NSW State Emergency Service
	Mr Andrew Kearns	Manager Strategic Planning, Hawkesbury City Council
	Councillor Patrick Conolly	Mayor, Hawkesbury City Council

Date	Name	Position and Organisation
	Mr Robert McMaster	Elected Member, Executive Committee, and Welfare Officer, Hawkesbury City Chamber of Commerce
	Mr Andrew Hall	Chief Executive Officer and Executive Director, Insurance Council of Australia
	Ms Kylie Macfarlane	Chief Operating Officer, Insurance Council of Australia
	Dr Chas Keys	Former Deputy Director-General, State Emergency Service
	Professor Jamie Pittock	Fenner School of Environment and Society, Australian National University
	Mr Sam Kernaghan	Director of Resilience Program, Committee for Sydney
	The Hon Stuart Ayres MP	Minister for Jobs, Investment, Tourism and Western Sydney
	Mr Simon Draper	Chief Executive Officer, Infrastructure NSW
	Ms Maree Abood	Head, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW
	Mr Brett Whitworth	Deputy Secretary, Greater Sydney, Place & Infrastructure, Department of Planning, Industry and Environment
	Mr Mark Babister	Managing Director, WMAwater
	Ms Fiona Smith	Executive Manager, Water Catchment Protection, WaterNSW

Appendix 3 Minutes

Minutes no. 1

Tuesday 23 July 2019

Room 1136, Parliament House at 10.30 am

1. Members present

Mr Field (*Chair*)

Mr Roberts (*Deputy Chair*)

Mr Farlow (substituting for Mr Khan) via teleconference

Mr Martin via teleconference

Mr Searle

Ms Sharpe

Mrs Ward (substituting for Mr Mallard)

2. Tabling of resolution establishing the committee

The Committee Clerk tabled the resolution of the House establishing the committee, which reads as follows:

1. That a select committee be established to inquire into and report on the NSW Government's proposal to raise the Warragamba Dam wall, and in particular:
 - (a) conflicting reports on the planning height for the dam wall raising and the potential use of the raising for additional storage capacity as well as flood mitigation,
 - (b) plans for future property development on flood prone land on the Hawkesbury Nepean Floodplain,
 - (c) engagement between the NSW Government and the World Heritage Committee of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in relation to the project,
 - (d) the adequacy of the Environmental Impact Assessment process to date, including the assessment of impacts on:
 - (i) World Heritage,
 - (ii) Aboriginal Cultural Heritage,
 - (iii) ecological values of the Greater Blue Mountains National Park,
 - (iv) the Warragamba community,
 - (v) communities on the Hawkesbury Nepean Floodplain,
 - (e) the nature and extent of the examination of alternative options for flood management that formed the basis of the Cost Benefit Analysis of the project and the 'Resilient Valley, Resilient Communities' strategy,
 - (f) the flood risk assessment and proposed flood management of the Hawkesbury-Nepean Valley and whether this meets international best practice standards,
 - (g) the estimated cost of the project and identified funding sources,
 - (h) the implementation of recommendations in the inquiry into the Water NSW Amendment (Warragamba Dam) Bill 2018 by the Standing Committee on State Development in October 2018, and
 - (i) any other related matter.
2. That, notwithstanding anything to the contrary in the standing orders, the committee consist of seven members comprising:

- (a) three government members,
 - (b) two opposition members, and
 - (c) two crossbench members, being Mr Field and Mr Roberts.
3. That, notwithstanding anything to the contrary in the standing orders, at any meeting of the committee, any four members of the committee will constitute a quorum.
4. That, unless the committee decides otherwise:
- (a) submissions to inquiries are to be published, subject to the Committee Clerk checking for confidentiality and adverse mention and, where those issues arise, bringing them to the attention of the committee for consideration,
 - (b) the Chair's proposed witness list is to be circulated to provide members with an opportunity to amend the list, with the witness list agreed to by email, unless a member requests the Chair to convene a meeting to resolve any disagreement,
 - (c) the sequence of questions to be asked at hearings is to alternate between government, opposition and crossbench members, in order determined by the committee, with equal time allocated to each,
 - (d) transcripts of evidence taken at public hearings are to be published,
 - (e) supplementary questions are to be lodged with the Committee Clerk within two days, excluding Saturday and Sunday, following the receipt of the hearing transcript, with witnesses requested to return answers to questions on notice and supplementary questions within 21 calendar days of the date on which questions are forwarded to the witness, and
 - (f) answers to questions on notice and supplementary questions are to be published, subject to the Committee Clerk checking for confidentiality and adverse mention and, where those issues arise, bringing them to the attention of the committee for consideration.

3. Election of Chair

According to Standing Order 213(2), the Committee Clerk called for nominations for the Chair.

Mr Martin moved: That Mr Field be elected Chair of the committee.

There being no further nominations, the Committee Clerk declared Mr Field elected Chair.

4. Election of Deputy Chair

Mr Field took the Chair.

The Chair called for nominations for the Deputy Chair.

Mr Martin moved: That Mr Roberts be elected Deputy Chair of the committee.

There being no further nominations, the Chair declared Mr Roberts elected Deputy Chair.

5. Conduct of committee proceedings – Media

Resolved, on the motion of Ms Sharpe: That unless the committee decides otherwise, the following procedures are to apply for the life of the committee:

- the committee authorise the filming, broadcasting, webcasting and still photography of its public proceedings, in accordance with the resolution of the Legislative Council of 18 October 2007
- the committee webcast its public proceedings via the Parliament's website, where technically possible
- committee members use social media and electronic devices during committee proceedings unobtrusively, to avoid distraction to other committee members and witnesses
- media statements on behalf of the committee be made only by the Chair.

6. Conduct of the inquiry

6.1 Proposed timeline

Resolved, on the motion of Mrs Ward: That the committee adopt the following inquiry timeline:

- submission closing date – 10 September 2019
- site visit to Warragamba dam and surrounding area – late September
- hearing dates – September/October 2019
- report tabling – November/December 2019.

6.2 Stakeholder list

Resolved, on the motion of Mr Searle: That the secretariat email members with a list of stakeholders to be invited to make written submissions, and that members have two days from the email being circulated to nominate additional stakeholders.

6.3 Advertising

The committee noted that all inquiries are advertised via Twitter, Facebook, stakeholder letters and a media release distributed to all media outlets in New South Wales.

7. Adjournment

The committee adjourned at 10.39 am, *sine die*.

Rebecca Main

Committee Clerk

Minutes no. 2

Monday 23 September 2019

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Old Queen Victoria Hospital, 215-229 Tableland Road, Wentworth Falls, at 9.07 am

1. Members present

Mr Field (*Chair*)

Mr Roberts (*Deputy Chair*)

Mr Mallard

Mr Martin

Mr Searle

2. Apologies

Mr Khan

Ms Sharpe

3. Draft minutes

Resolved, on the motion of Mr Martin: That draft minutes no. 1 be confirmed.

4. Correspondence

The committee noted the following correspondence:

Received

- 24 July 2019 – Letter from President and Committee Chair John Ajaka MLC, regarding the inquiry into the broadcast of proceeding resolution.

5. Attendance on the upstream Warragamba Dam site visit by expert stakeholders

Resolved, on the motion of Mr Searle: That the committee authorise the following expert stakeholders to accompany the committee on the site visit to upstream Warragamba Dam:

- Sharyn Halls, Traditional Custodian
- Kazan Brown, Traditional Custodian
- Michael Jackson, Archaeologist
- Ian Wright, Water Ecologist, and
- Steve Douglas, Ecologist.

6. Upstream Warragamba Dam site visit

The committee visited the upstream catchment area of the Warragamba Dam, from 9.08 am to 4.30 pm, and examined the Kedumba Waterhole, the Camden White Gums and the junction of the Kowmung and Cox's Rivers.

The committee was briefed on the impact of the proposed increase in the height of the dam wall by the expert stakeholders: Sharyn Halls, Kazan Brown, Michael Jackson, Ian Wright and Steve Douglas, Ecologist.

The committee was briefed on the NSW Government's EIS process by Emma Hatley, WaterNSW. Additional Water NSW representative present were Andrew Simpson, Hugh Sutton, Colin Heaslip and Jordan Pont.

7. Adjournment

The committee 4.30pm until Wednesday 25 September 2019, 10.45 am (for Meeting 3, Members' Lounge, Parliament House, Sydney).

Shelly Savage

Committee Clerk

Minutes no. 3

Wednesday 25 September 2019

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Jubilee Room at 10.49 am

1. Members present

Mr Field (*Chair*)

Mr Roberts (*Deputy Chair*)

Mr Martin

Mr Searle

Ms Sharpe

2. Apologies

Mr Khan

Mr Mallard

3. Submissions

3.1 Public submissions

The committee noted that submission nos. 1-9, 11-15, 17-22, 24, 26, 28-33, 35- 37, 39, 40, 41, 43, 45, 46, 48, 49, 51, 54-57, 59-65, 68-71, 73-78, 80, 83, 86, 87, 91, 92, 94, 96, 97, 99, 102, 104, 405, 107-118, 120, 121, 123, 125, 126, 128-132, 136 137-139, 141-144, 146, 147, 150, 151, 154, 157, 158, 159, 165, 168, 169, 170, 172, 173, 174, 176, 177, 178, 181, 182, 183, 185, 189, 191, 193-195, 197, 198, 199, 203-208, 211-227, 229-232, 234, 235, 237-243, 245-257, 260, 261, 263-265, 267--270, 273- 278, 281, 283, 284, 286-291, 293, 295, 296, 298, 301-304, 307, 309-313, 317, 320-324, 326, 328-332, 335-337, 339, 340, 342-344, 346-349, 351, 355-357, 359 and 361-368 were published by the Committee Clerk under the resolution appointing the committee.

3.2 Partially confidential submissions (name suppressed)

Resolved, on the motion of Mr Martin: That the committee authorise the publication of submission nos. 10, 16, 23, 25, 28, 34, 38, 42, 44, 47, 50, 52, 53, 58, 66, 67, 72, 79, 81, 84, 85, 88, 89, 90, 95, 98, 100, 103, 106, 119, 122, 124, 127, 134, 135, 140, 145, 148, 149, 152, 153, 155, 160-164, 167, 171, 175, 179, 180, 184, 186, 187, 188, 190, 192, 196, 200-202, 209, 210, 244, 258, 262, 271, 272, 282, 285, 297, 299, 300, 306, 308, 316, 318, 327, 334, 338, 341, 350, 352-354, 358 and 360 with the exception of the author's name, which is to remain confidential, as per the request of the author.

3.3 Partially confidential submissions (adverse comments or sensitive information)

Resolved, on the motion of Mr Roberts: That the committee authorise the publication of:

- submission nos. 156, 166, 233, 236, 266, 279, 292, 294, 305, 315, 325, and 369 after redacting the name/s of the individuals of which adverse comments were made;
- submission nos. 314 and 327 after redacting identifying/sensitive information including the name/photos of the child who made the submission.

Resolved, on the motion of Mr Searle: That attachments to submission no. 369 be published as requested by the author.

3.4 Confidential submissions

Resolved, on the motion of Mr Searle: That the committee keep submission nos. 27, 82, 93, 101 133, 228, 259, 280, 319, 333, and 345 confidential, as per the request of the author.

3.5 Proformas

Resolved, on the motion of Ms Sharpe: That:

- proformas not be processed as submissions; and
- one copy of each proforma is published on the committee website, noting the number of responses but without any authors' details.

4. Future inquiry activity

The committee discussed future inquiry activity including further site visits and hearings. Further consultation will be undertaken with members.

5. Adjournment

The committee adjourned at 10.59 am, *sine die*.

Rebecca Main

Committee Clerk

Minutes no. 4

Friday 22 November 2019

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Oakdale Gate, Sheehys Creek Road, Oakdale at 10.00 am

1. Members present

Mr Field (*Chair*)

Mr Roberts (*Deputy Chair*)

Mr Fang

Ms Sharpe

2. Apologies

Mr Mallard

Mr Martin

Mr Searle

3. Previous minutes

Resolved, on the motion of Ms Sharpe: That draft minutes no. 3 be confirmed.

4. Correspondence

The committee noted the following items of correspondence:

Received

- 4 October 2019 and 8 November 2019 - Emails from Mr Wilson Harris, Colong Foundation, regarding a request to film the inquiry hearings.

5. Attendance on the downstream Warragamba Dam site visit by expert stakeholders

Resolved, on the motion of Ms Sharpe: That the committee authorise the following expert stakeholders to accompany the committee on the site visit to downstream Warragamba Dam on 22 November 2019:

- Ms Taylor Clarke, Traditional Custodian
- Ms Kazan Brown, Traditional Custodian
- Ms Sharyn Halls, Traditional Custodian
- Mr Michael Jackson, Archaeologist
- Mr David Harper, Program Director, Major Projects, WaterNSW
- Councillor Matt Gould, Wollondilly Shire Council
- Ms Emma Hately, WaterNSW.

6. Attendance on the 25 November site visit by expert stakeholders

Resolved, on the motion of Mr Fang: That the committee authorise the following expert stakeholders to accompany the committee on the site visit on 25 November 2019:

- Deputy Mayor Mary Lyons-Buckett, Hawkesbury City Council
- Ms Maree Abood, Executive Director, Strategic Water Planning and Infrastructure, Infrastructure NSW
- Ms Alison White, Manager Community Resilience, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW
- Assistant Commissioner Paul Bailey, SES
- Mr Peter Cinque, Manager, Business Support Services, NSW SES Metro Zone.

7. Request to film from Mr Wilson Harris, Colong Foundation

Resolved, on the motion of Ms Sharpe: That the committee authorise Mr Wilson Harris, Colong Foundation, to film the public hearings.

8. Public submissions

The committee noted that submission no. 369 (Colong Foundation for Wilderness) was replaced with a revised version, and that submission nos. 380 to 382 were published by the committee clerk, under the resolution appointing the committee.

9. Attachment to submission

Resolved, on the motion of Mr Roberts: That the attachment to submission no. 364 be published.

10. Further information from NSW Government

Resolved, on the motion of Ms Sharpe: That the committee write to the NSW Government requesting additional information in relation to how biodiversity offset requirements for the proposal will be determined, what methodology will be used and how suitable offsets will be identified and that a response be requested by 20 December 2019.

11. Downstream Warragamba Dam site visit

The committee visited the downstream Warragamba Dam area, and was met by the following:

- Ms Taylor Clarke, Traditional Custodian
- Ms Kazan Brown, Traditional Custodian
- Ms Sharyn Halls, Traditional Custodian
- Mr Michael Jackson, Archaeologist
- Mr David Harper, Program Director, Major Projects, WaterNSW
- Ms Emma Hately, WaterNSW.

The committee conducted a tour and inspection of the downstream Warragamba Dam including Waratah Rock, Gungarlook Waterhole and farm, and Joorilands.

Ms Clarke, Ms Brown, Ms Halls and Mr Jackson provided a briefing on the history and heritage values of Waratah Rock, Gungarlook Waterhole and farm, and Joorilands.

Mr Harper and Ms Hately provided a briefing on the WaterNSW EIS process in relation to downstream Warragamba Dam.

12. Warragamba Dam wall site visit

The committee visited the Warragamba Dam wall, and was met by the following:

- Ms Maree Abood, Executive Director, Strategic Water Planning and Infrastructure, Infrastructure NSW
- Ms Alison White, Manager Community Resilience, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW
- Mr David Harper, Program Director, Major Projects, WaterNSW
- Mr Brian Simmons, Regional Manager Greater Sydney, WaterNSW.

The committee conducted a tour and inspection of the Warragamba Dam wall.

Ms Abood and Ms White provided a briefing on the proposal to raise the Warragamba Dam wall.

Mr Harper and Mr Simmons provided a briefing on the operation and engineering of Warragamba Dam, including past and proposed changes to the operation and height of the wall.

13. Adjournment

The committee adjourned at 4.10 pm until Monday 25 November 2019, 9.10 am (for site visit and public hearing, Windsor Function Centre, 7 Dight Street, Windsor).

Rebecca Main
Committee Clerk

Minutes no. 5

Monday 25 November 2019

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Windsor Function Centre, 7 Dight Street, Windsor at 9.10 am

1. Members present

Mr Field (*Chair*)

Mr Roberts (*Deputy Chair*)

Mr Fang

Mr Searle

Ms Sharpe

2. Apologies

Mr Mallard

Mr Martin

3. Site visit to flood risk area

The committee visited the flood risk area, and was met by the following:

- Deputy Mayor Mary Lyons-Buckett, Hawkesbury City Council
- Ms Maree Abood, Executive Director, Strategic Water Planning and Infrastructure, Infrastructure NSW
- Ms Alison White, Manager Community Resilience, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW
- Assistant Commissioner Paul Bailey, SES
- Mr Peter Cinque, Manager, Business Support Services, NSW SES Metro Zone.

The committee conducted a tour and inspection of the flood risk area including Hawkesbury, Windsor, Penrith Lakes, Penrith and Richmond.

Deputy Mayor Lyons-Buckett provided a briefing on the local perspective in regard to flood risks in the Hawkesbury and Richmond.

Assistant Commissioner Bailey and Mr Cinque provided a briefing on historic flood levels, current flood risk areas including new developments, and evacuation routes.

Ms Abood and Ms White provided a briefing on the flood risk management strategy including road upgrades and communication.

4. Submission

Resolved, on the motion of Ms Sharpe: That submission no. 383, Associate Professor Barry Croke, be published.

5. Allocation of questioning

Resolved, on the motion of Mr Searle: That the allocation of questions be left in the hands of the Chair.

6. Future hearings

Resolved, on the motion of Mr Roberts: That:

- at the conclusion of today's hearing, the committee not hold further public hearings until after the NSW Government has released the EIS for the proposal to raise the dam wall;
- the Chair issue a media release to this effect, a note be placed on the website and correspondence be sent to NSW Government to advise of the committee decision; and
- once the EIS is released the committee recommence activity with dates for public hearings to be determined by the Chair after consultation with members.

7. Public hearing

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were sworn and examined:

- Mr Simon Draper, CEO, Infrastructure NSW
- Ms Maree Abood, Head, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW
- Mr Andrew George, Executive Manager, Water Solutions and Market Strategy, WaterNSW
- Mr Colin Langford, Director, North-West Precinct - Greater Sydney Division Roads and Maritime Service, Transport for NSW
- Mr Brett Whitworth, Deputy Secretary, Greater Sydney, Place & Infrastructure, Department of Planning, Industry and Environment
- Assistant Commissioner Paul Bailey, NSW State Emergency Service
- Mr Peter Cinque, Principal Advisor, Hawkesbury-Nepean, NSW State Emergency Service

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Associate Professor Barry Croke, Senior Lecturer, Mathematical Sciences Institute, Australian National University (*via teleconference*)
- Dr Chas Keys, Former Deputy Director-General, SES (Honorary Associate of Risk Frontiers)
- Professor Jamie Pittock, Fenner School of Environment and Society, Australian National University.

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Councillor Matt Gould, Councillor, Wollondilly Shire Council
- Ms Alexandra Stengl, Manager Environmental Outcomes, Wollondilly Shire Council
- Mr Wayne Mitchell, Director - Development and Regulatory Services, Penrith City Council
- Councillor Barry Calvert, Mayor, Hawkesbury City Council
- Mr Andrew Kearns, Manager Strategic Planning, Hawkesbury City Council
- Councillor Mark Greenhill, OAM, Mayor, City of Blue Mountains (*via teleconference*)
- Mr Nick Rigby, Environment Manager, City of Blue Mountains

The evidence concluded and the witnesses withdrew.

The public hearing concluded at 4.00 pm.

The public and media withdrew.

8. Adjournment

The committee adjourned at 4.05 pm *sine die*.

Rebecca Main
Committee Clerk

Minutes no. 6

Tuesday 30 June 2020

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Macquarie Room, Parliament House, Sydney at 9.18 am

1. Members present

Mr Field, *Chair*

Mr Roberts, *Deputy Chair*

Mr Fang

Mr Mallard (from 9.20 am until 10.54 am, from 12.30 pm)

Mr Searle

Ms Sharpe (until 10.54 am, from 12.39 pm)

2. Apologies

Mr Martin

3. Previous minutes

Resolved on the motion of Mr Roberts: That draft minutes nos. 2, 4 and 5 be confirmed.

4. Correspondence

The Committee noted the following items of correspondence:

Received

- 20 December 2019 - Letter from Infrastructure NSW to committee advising of the Biodiversity Assessment Reports to be undertaken as part of the Environmental Impact Statement (EIS).

Sent

- 27 November 2019 - Letter from Chair to the Hon Stuart Ayres MP, Minister for Western Sydney, requesting further information as to how the Framework for Biodiversity Assessment will be used in both the assessment of impacts and in determining offset requirements for the project
- 9 June 2020 – Letter from Chair to the Hon Stuart Ayres MP, Minister for Western Sydney, advising that committee activities for the inquiry will recommence along with the agencies to be invited to participate.

Resolved on the motion of Mr Searle: That the committee authorise the publication of correspondence from Infrastructure NSW, regarding Biodiversity Assessment Reports to be undertaken as part of the Environmental Impact Statement, dated 20 December 2019.

5. Answers to questions on notice

The committee noted that following answers to questions on notice and supplementary questions were published by the committee clerk under the authorisation of the resolution appointing the committee:

- answers to questions on notice from Councillor Mark Greenhill, Mayor, City of Blue Mountains received on 3 December 2019
- answers to questions on notice from Mr Nick Rigby, Environment Manager, City of Blue Mountains received on 9 January 2020
- answers to questions on notice from Mr Wayne Mitchell, Director, Development and Regulatory Services, Penrith City Council received on 7 January 2020
- Ms Maree Abood, Head, Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW received on 20 December 2019.

Mr Mallard joined the meeting at 9.20 am.

6. Resumption of inquiry activities

Resolved on the motion of Mr Searle: That the committee resume public hearings and other committee activities for the inquiry given fire and flood events of early 2020 in the vicinity of Warragamba Dam and the impacts of these events on the EIS and the proposal to raise the dam wall.

7. Briefing by NSW SES, Infrastructure NSW and Water NSW

The committee were briefed by representatives from the following agencies regarding the February 2020 flood events near Warragamba Dam:

- Mr Daniel Austin, Deputy Commissioner, Operations, NSW SES
- Mr Peter Cinque, Principal Advisor, Hawkesbury-Nepean Strategy, NSW SES
- Mr Simon Draper, Chief Executive Officer, Infrastructure NSW
- Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Directorate, Infrastructure NSW
- Mr Mark Babister, CEO, WMAwater
- Ms Fiona Smith, Executive Manager Water Catchment Protection, Water NSW
- Mr David Harper, Program Director Major Projects, Water NSW.

Mr Greg Lynch, A/Director Metro Operations, NSW SES and Ms Dianne Cohen, Communication and Engagement Specialist, Hawkesbury-Nepean Valley Flood Risk Management Directorate were also present in the room.

Ms Abood gave a PowerPoint presentation to the committee on the flood events of February 2020.

8. Briefing by Department of Planning, Industry and Environment, National Parks and Wildlife Service and WaterNSW

The committee were briefed by the following representatives from Infrastructure NSW and Department of Planning, Industry and Environment regarding fire impacts in the upstream area of Warragamba Dam:

- Mr David Gainsford, Executive Director Infrastructure Assessments, Department of Planning, Industry and Environment
- Mr Atticus Fleming, Deputy Secretary National Parks and Wildlife Service
- Ms Fiona Smith, Executive Manager Water Catchment Protection, WaterNSW
- Mr David Harper, Program Director Major Projects, WaterNSW.

Mr David Crust, Park Operations Director, National Parks and Wildlife Service was also present in the room.

Mr Fleming gave a presentation of fire impacts in the upstream area of Warragamba Dam.

Mr Gainsford gave a presentation on planning and assessment of the proposal to raise the dam wall.

9. Allocation of questioning

Resolved on the motion of Mr Fang: That the sequence of questions asked during the inquiry hearings be left in the hand of the Chair.

10. Public hearing

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were examined on their former oath:

- Mr Peter Cinque, Principal Advisor, Hawkesbury-Nepean Strategy, NSW SES
- Mr Simon Draper, Chief Executive Officer, Infrastructure NSW
- Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Directorate, Infrastructure NSW

The following witnesses were sworn and examined:

- Mr Daniel Austin, Deputy Commissioner, Operations, NSW SES
- Mr Mark Babister, CEO, WMAwater
- Ms Fiona Smith, Executive Manager, Water Catchment Protection, WaterNSW
- Mr David Harper, Program Director Major Projects, WaterNSW.

The evidence concluded and the witnesses withdrew.

The following witnesses were examined on their former oath:

- Ms Fiona Smith, Executive Manager, Water Catchment Protection, Water NSW
- Mr David Harper, Program Director Major Projects, Water NSW.

The following witnesses were sworn and examined:

- Mr David Gainsford, Executive Director Infrastructure Assessments, Department of Planning, Industry and Environment
- Mr Atticus Fleming, Deputy Secretary National Parks and Wildlife Service.

The evidence concluded and the witnesses withdrew.

11. **Publication of PowerPoint presentation slides used by government officials**

Resolved, on the motion of Mr Searle: That, once the secretariat has sought approval from the relevant government officials, the committee authorise the publication of the presentation slides used during the private briefings on 30 June 2020, given by:

- Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Directorate, Infrastructure NSW
- Mr Atticus Fleming, Deputy Secretary National Parks and Wildlife Service.
- Mr David Gainsford, Executive Director Infrastructure Assessments, Department of Planning, Industry and Environment.

12. **Further committee activities**

Resolved, on the motion of Mr Searle: That the committee publish a note on the website that no further hearings be held until after the NSW Government has released the Environmental Impact Statement (EIS) for the proposal to raise the dam wall.

13. **Adjournment**

The committee adjourned at 3.11 pm, *sine die*.

Emma Rogerson
Committee Clerk

Minutes no. 7

Tuesday 18 August 2020

Select Committee on the Proposal to Raise the Warragamba Dam Wall
McKell Room, Parliament House, 10.00 am

1. **Members present**

Mr Field, *Chair, via teleconference*
Mr Roberts, *Deputy Chair*
Mr Fang
Mr Mallard, *via teleconference*
Mr Martin, *via teleconference*
Mr Searle
Ms Sharpe, *via teleconference*

2. Draft minutes

Resolved, on the motion of Mr Mallard: That draft minutes no. 6 be confirmed.

3. Answers to questions on notice and supplementary questions

The committee noted that the following answers to questions on notice and supplementary questions were published by the committee clerk under the authorisation of the resolution appointing the committee:

- answers to questions on notice and supplementary questions from Infrastructure NSW and Water NSW, received on 29 July 2020
- answers to questions on notice NSW National Parks & Wildlife Service, received on 28 July 2020.

4. Further committee activities

Mr Searle moved: That given recent media attention regarding the Warragamba Dam Wall raising project, the committee hold a half day hearing on 28 August 2020 inviting relevant government officials to respond to issues raised in recent media and in relation to the preparation of the Environmental Impact Statement.

Question put.

The committee divided.

Ayes: Mr Field, Mr Roberts, Mr Searle, Ms Sharpe

Noes: Mr Fang, Mr Mallard, Mr Martin

Question resolved in the affirmative.

Resolved, on the motion of Mr Mallard: That the committee invite Minister for Jobs, Investment, Tourism and Western Sydney, the Hon Stuart Ayres MP, to give evidence at the hearing on 28 August 2020.

Resolved, on the motion of Mr Searle: That the Chair circulate a proposed hearing schedule for the committee's comment.

Resolved, on the motion of Mr Searle: That the Chair, on behalf of the committee, write to Minister Ayres, Infrastructure NSW and Water NSW, raising concerns about the issues raised in the media, the adequacy of responses to recent questions from the committee, and requesting the following documents related to these issues be provided to the committee by 10.00 am, 25 August 2020:

- a. The letter from the Commonwealth Department of Agriculture, Energy and Environment requesting the variation to the EPBC referral.
- b. Any report, analysis or other advice relied on by Water NSW or Infrastructure NSW in making the decision to vary the project to allow for a 17m raising as indicated within the variation request of 30 June 2020 to the Department of Agriculture, Energy and Environment.
- c. All responses from Government agencies to the Environmental Impact Statement as part of the consistency review and the date those responses were received by Water NSW and Infrastructure NSW.
- d. all documents referred to in the resolution of the Legislative Council of 27 February 2020.

5. Adjournment

The committee adjourned at 10.14 am, until Friday 28 August 2020 (half day hearing).

Emma Rogerson
Committee Clerk

Minutes no. 8

Friday 28 August 2020

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Macquarie Room, Parliament House, 9.33 am

1. Members presentMr Field, *Chair*Mr Roberts, *Deputy Chair*

Mr Mallard (until 10.53 am)

Mr Martin

Mr Searle

Ms Sharpe

2. Apologies

Mr Fang

3. Previous minutes

Resolved, on the motion of Ms Sharpe: That draft minutes no. 7 be confirmed.

4. Correspondence

The committee noted the following items of correspondence:

Received

- 19 August 2020 – Email from Mr Peter Allen, Managing Director, Rustyglo Pty Ltd to secretariat, offering alternatives approaches to the proposed project
- 24 August 2020 – Email from Mr Michael Haynes, Chief of Staff, Office of the Hon. Stuart Ayres MP to secretariat, advising that the Minister is unable to attend the hearing on Friday 28 August 2020
- 25 August 2020 - Letter from Minister Ayres to Chair, providing response to request for voluntary production of documents relating to inquiry
- 25 August 2020 – Email from Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Management Directorate, Infrastructure NSW to secretariat, advising that the Minister's response also serves as response to the request for the voluntary production of documents to Infrastructure NSW and WaterNSW
- 25 August 2020 – Email from Mr Adam Kiely, Ministerial, Parliamentary and Portfolio Coordination, Corporate and Business Services Division, Department of Agriculture, Water and the Environment, to committee declining the invitation to give evidence at the hearing on Friday 28 August 2020.

Resolved, on the motion of Ms Sharpe: That the correspondence received from Mr Peter Allen dated 19 August 2020 be processed as a late submission to the inquiry, pending the secretariat obtaining Mr Allen's approval.

Sent

- 18 August 2020 – Letter from Chair, to Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, requesting voluntary production of documents relating to the inquiry
- 18 August 2020 – Letter from Chair, to Mr Andrew George, Acting Chief Executive Officer, Water NSW, requesting voluntary production of documents relating to the inquiry
- 18 August 2020 – Letter from Chair to Minister Ayres, requesting voluntary production of documents relating to the inquiry.

5. Allocation of questioning

Resolved, on the motion of Mr Roberts: That the sequence of questions to be asked during the hearing be left in the hands of the Chair.

6. Public hearing

Witnesses were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were examined on their former oath:

- Mr Simon Draper, Chief Executive Officer, Infrastructure NSW
- Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Directorate, Infrastructure NSW
- Mr David Harper, Program Director Major Projects, WaterNSW
- Mr David Gainsford, Executive Director Infrastructure Assessments, Department of Planning, Industry and Environment
- Mr Atticus Fleming, Deputy Secretary National Parks and Wildlife Service.

Mr Field tabled two documents containing comments on the draft Environmental Impact Statement to the proposal raising the Warragamba Dam wall from the following government agencies:

- The Australian Department of Agriculture, Water and Environment
- NSW National Parks and Wildlife Service.

Mr Searle tabled the following documents:

- a document entitled 'Warragamba Dam Raising proposal (SSI-8441) Pre-exhibition EIS review
- a document containing information possibly from the draft Environmental Impact Statement
- a document entitled 'Energy, Climate Change and Sustainability (ECCS) key biodiversity issues and comments'.

The evidence concluded and the witnesses withdrew.

The public hearing concluded at 11.57 am.

7. Tendered documents

Resolved, on the motion of Mr Searle: That the committee accept and publish the following documents tendered during the public hearing:

- comments on the draft Environmental Impact Statement to the proposed raising of the Warragamba Dam from the Australian Department of Agriculture, Water and Environment, tendered by Mr Field
- comments on the draft Environmental Impact Statement to the proposed raising of the Warragamba Dam wall from NSW National Parks and Wildlife Service, tendered by Mr Field
- a document entitled 'Warragamba Dam Raising proposal (SSI-8441) Pre-exhibition EIS review tendered by Mr Searle
- a document entitled 'Energy, Climate Change and Sustainability (ECCS) key biodiversity issues and comments'.

Resolved on the motion of Mr Searle: That the committee accept and keep confidential the following document tendered during the public hearing:

- a document containing information possibly from the draft Environmental Impact Statement, tendered by Mr Searle.

8. Adjournment

The committee adjourned at 12.03 pm, *sine die*.

Emma Rogerson
Committee Clerk

Minutes no. 9

Wednesday 16 September 2020

Select Committee on the Proposal to Raise the Warragamba Dam Wall
Members' Lounge, Parliament House, Sydney, at 2.02 pm

1. Members present

Mr Field, *Chair*
Mr Fang
Mr Mallard
Mr Martin
Mr Roberts
Mr Searle
Ms Sharpe

2. Draft minutes

Resolved, on the motion of Mr Martin: That draft minutes no. 8 be confirmed.

3. Further committee hearing

Resolved, on the motion of Mr Searle: That the committee conduct a further half day hearing to take evidence relating to the cultural heritage assessment, with the list of witnesses to be confirmed via email.

4. Adjournment

The committee adjourned at 2.14 pm, *sine die*.

Shu-Fang Wei

Committee Clerk

Minutes no. 10

Friday 6 November 2020

Select Committee on the Proposal to Raise the Warragamba Dam Wall
Jubilee Room, Parliament House, at 9.22 am

1. Members present

Mr Field, *Chair*
Mr Roberts, *Deputy Chair, via videoconference* (until 12.22 pm)
Mr Fang
Mr Mallard, *via videoconference* (until 12.22 pm)
Mr Martin, *via videoconference*
Mr Searle
Ms Sharp (until 11.00 am, from 11.51 am)

2. Previous minutes

Resolved, on the motion of Mr Searle: That draft minutes no. 9 be confirmed.

3. Correspondence

The committee noted the following items of correspondence:

Received

- 22 October 2020 – Email from Ms Kazan Brown to secretariat, providing suggestions of further witnesses to be invited to give evidence on 6 November 2020
- 28 October 2020 – Email from Dr Michael Slack, Director, Scarp Archaeology to secretariat, declining invitation to give evidence at hearing on 6 November 2020

- 5 November 2020 – Email from Prof Jamie Kirkpatrick, University of Tasmania, providing a report entitled World Heritage Values and the Warragamba Dam.

Resolved, on the motion of Mr Searle: That the committee accept and publish the report provided by Prof Jamie Kirkpatrick, University of Tasmania, dated 5 November 2020, entitled World Heritage Values and the Warragamba Dam.

4. Answers to questions on notice

The committee noted that the following answers to questions on notice were published by the committee clerk under the authorisation of the resolution appointing the committee:

- answers to questions on notice from Infrastructure NSW, Water NSW and the Department of Planning, Industry and Environment received 25 September 2020.

5. Adverse mention

The Chair made a statement regarding parliamentary privilege and witnesses giving evidence containing adverse mentions.

6. Public hearing

Witnesses and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were sworn and examined:

- Mr Paul Knight, Chief Executive Officer, Illawarra Local Aboriginal Land Council
- Aunty Sharyn Halls, Gundungurra Elder
- Mr Daniel Chalker, Indigenous representative, *via videoconference*
- Ms Helen Lardner, President, Australia ICOMOS, *via videoconference*
- Ms Kazan Brown, Gundungurra traditional owner, *via videoconference*
- Ms Taylor Clarke, Gundungurra traditional owner, *via videoconference*
- Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, *via videoconference*.

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Dr Steven Douglas, Consultant ecologist (BAM certified) and environmental planner, Ecological Surveys & Planning, *via videoconference*
- Prof Jamie Kirkpatrick, Geography and Spatial Sciences, University of Tasmania, *via videoconference*
- Mr Eugene Simonov, Doctor of Conservation and Coordinator, Rivers without Boundaries International Coalition, *via videoconference*

Mr Sai Khur Hseng, Coordinator of Shan Sapawa Environmental Organisation in Myanmar and Member, Rivers without Boundaries International Coalition, joined the meeting *via videoconference* from 11.37 am.

Mr Hseng was sworn.

The committee continued to examine witnesses.

The evidence concluded and the witnesses and the media withdrew.

The public hearing concluded at 12.22 pm.

7. Correspondence to individuals named in transcript of evidence – 6 November 2020

Resolved, on the motion of Ms Sharpe: That the committee write to the individuals named during the hearing on 6 November 2020, forwarding the transcript of evidence and seeking a response to comments and issues raised.

8. Transcript of evidence – 6 November 2020

The committee noted that the circulation of the transcript of evidence from the hearing on 6 November 2020 may be delayed.

9. Adjournment

The committee adjourned at 12.29 pm, *sine die*.

Emma Rogerson
Committee Clerk

Minutes no. 11

Thursday 18 February 2021

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Members' Lounge, Parliament House, Sydney, at 1.37 pm

1. Members present

Mr Field, *Chair*

Mr Roberts, *Deputy Chair*

Mr Fang

Mr Martin

Mr Searle

Ms Sharp

2. Apologies

Mr Mallard

3. Previous minutes

Resolved, on the motion of Ms Sharp: That draft minutes no. 10 be confirmed.

4. Correspondence

The committee noted the following items of correspondence:

Received

- 13 November 2020 – Email from Ms Kazan Brown, Gungundarra Traditional Owner to committee, providing documents referred to in opening statement during hearing on 6 November 2020
- 3 December 2020 – Email from Mr Eugene Simonov, Coordinator, Rivers without Boundaries to secretariat, providing information in relation to the debarring of SMEC Melbourne and several subsidiaries by the World Bank
- 4 December 2020 – Letter from Mr Chris Nielsen, Partner, McCullough Robertson Lawyers on behalf of Ms Renée Regal, Team Leader – Aboriginal Heritage NSW, NICHE Environment and Heritage, to Chair, providing response to comments made during hearing on 6 November 2020
- 23 December 2020 – Letter from Mr Ben Shine, Manager Government Relations & Corporate Affairs, WaterNSW, to the secretariat, providing response to the committee's request for an update on the status of the investigation undertaken by WaterNSW into comments made during the public hearing on 6 November 2020

- 15 February 2021 – Letter from Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, to Chair, providing an update to the submission lodged at the start of the inquiry.

Resolved, on the motion of Mr Searle: That the committee:

- Authorise the publication of correspondence from Mr Chris Nielsen, Partner, McCullough Robertson Lawyers, providing a response on Ms Regal's behalf to comments made during hearing on 6 November 2020, dated 4 December 2020
- Keep confidential the correspondence from Ms Kazan Brown, Gungundarra Traditional Owner, providing documents referred to in opening statement during the hearing on 6 November 2020, dated 13 November 2020, as it contains identifying and/or sensitive information
- Authorise the publication of correspondence from Mr Andrew Hall, Executive Director and Chief Executive Officer, Insurance Council of Australia, to Chair, providing an update to the submission lodged at the start of the inquiry.

5. **Answers to supplementary questions**

The committee noted the following answers to supplementary questions published by the committee clerk under the authorisation of the resolution appointing the committee:

- Answers to supplementary questions from Ms Kazan Brown, Gundungarra Traditional Owner, received on 10 December 2020
- Answers to supplementary questions from Mr Michael Jackson, Archaeologist/Cultural Heritage Advisor, Jackson Ward Archaeology, received on 16 December 2020.

6. **Interim report**

Resolved, on the motion of Mr Searle: That the committee table an interim report relating to item (d) of the inquiry's terms of reference, focusing in particular, on the shortcomings of the Environmental Impact Statement process to date, as raised in evidence by inquiry participants.

7. **Tabled documents**

Mr Field tabled the following documents:

- Briefing note for the Minister concerning the Warragamba Dam Wall project and issues related to its Environmental Impact Statement, filed no: HMD20/81
- Briefing note for Hon Don Harwin MLC, Special Minister of State, Minister for the Public Service and Employee Relations, Aboriginal Affairs, and the Arts, seeking approval of draft correspondence responding to questions raised by Trish Doyle MP and David Harris MP concerning an Aboriginal place that could potentially be affected by proposed raising of the Warragamba Dam Wall.

Resolved, on the motion of Mr Searle: That:

- the committee accept the documents tabled by Mr Field
- the secretariat circulate the documents via email to members for their information, and seek the agreement of the committee to publish the documents on the inquiry webpage by Thursday 25 February 2021.

8. **Adjournment**

The committee adjourned at 1.50 pm, *sine die*.

Emma Rogerson
Committee Clerk

Minutes no. 12

Monday 7 June 2021

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Jubilee Room, Parliament House, 9.19 am

1. Members presentMr Field, *Chair*Mr Roberts, *Deputy Chair* (until 11.52 am)

Mr Fang

Mr Mallard Mr Martin (from 9.20 am)

Mr Searle (until 1.07 pm)

Ms Sharpe

2. Previous minutes

Resolved, on the motion of Ms Sharpe: That draft minutes no. 11 be confirmed.

3. Correspondence

The committee noted the following items of correspondence:

Received

- 21 May 2021 – Email from Ms Naomi Graham, Principal, Public Policy and Industry Affairs, IAG to secretariat, advising that IAG representatives are unable to attend the hearing on 7 June 2021.

Sent

- 12 May 2021 – Letter from secretariat to the Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney, inviting him to give evidence at hearing on 7 June 2021.

4. Public hearing

Witnesses, the public and the media were admitted.

The Chair made an opening statement regarding the broadcasting of proceedings and other matters.

The following witnesses were sworn and examined:

- Mr Robert McMaster, Elected Member, Executive Committee and Welfare Officer, Hawkesbury City Chamber of Commerce
- Clr Patrick Conolly, Mayor, Hawkesbury City Council, *via videoconference*.

The following witnesses were examined on their former oath:

- Mr Daniel Austin, Deputy Commissioner, Operations, NSW State Emergency Service
- Mr Peter Cinque, Principal Advisor, Hawkesbury-Nepean Metro Operations, NSW State Emergency Service
- Mr Andrew Kearns, Manager, Strategic Planning, Hawkesbury City Council.

The evidence concluded and the witnesses withdrew.

The following witnesses were sworn and examined:

- Mr Andrew Hall, Chief Executive Officer and Executive Director, Insurance Council of Australia
- Ms Kylie Macfarlane, Chief Operating Officer, Insurance Council of Australia.

The evidence concluded and the witnesses withdrew.

The following witness was sworn and examined:

- Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney.

The following witnesses were examined on their former oath:

- Professor Jamie Pittock, Fenner School of Environment and Society, Australian National University
- Dr Chas Keys, Former Deputy Director-General, NSW State Emergency Service.

Mr Kernaghan tendered the following documents:

- Opening statement
- Two media releases by Committee for Sydney regarding the proposal to raise the Warragamba Dam wall.

The evidence concluded and the witnesses withdrew.

The Chair noted that Members of Parliament swear an oath to their office, and therefore do not need to be sworn prior to giving evidence before a committee.

The Hon Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney was admitted and examined.

The following witnesses were examined on their former oath:

- Mr Brett Whitworth, Deputy Secretary, Greater Sydney, Place & Infrastructure, Department of Planning, Industry and Environment
- Mr Simon Draper, Chief Executive Officer, Infrastructure NSW
- Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Management, Infrastructure NSW
- Ms Fiona Smith, Executive Manager, Water NSW
- Mr Mark Babister, Managing Director, WMAwater – Flood modelling specialist.

Ms Abood tendered the following document:

- March 2021 Flood, Hawkesbury-Nepean Valley presentation.

Mr Field tabled the following documents:

- Letter from Mr Adam Wilkinson, Engineering Services Manager, Penrith City Council to Ms Maree Abood, Executive Director, Water Planning, Infrastructure NSW regarding improving flood evacuation capacity in Hawkesbury-Nepean Valley, dated 18 March 2020
- Letter from Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Management, Infrastructure NSW to Mr Adam Wilkinson, Engineering Services Manager, Penrith City Council regarding flood evacuation capacity in the Hawkesbury-Nepean Valley, dated 25 May 2020.

The evidence concluded. Minister Ayres MP and the witnesses withdrew.

Tendered documents

Resolved, on the motion of Ms Sharpe: That the committee accept and publish the following documents tabled during the hearing:

- Letter from Mr Adam Wilkinson, Engineering Services Manager, Penrith City Council to Ms Maree Abood, Executive Director, Water Planning, Infrastructure NSW regarding improving flood evacuation capacity in Hawkesbury-Nepean Valley, dated 18 March 2020, tabled by Mr Justin Field MLC
- Letter from Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Management, Infrastructure NSW to Mr Adam Wilkinson, Engineering Services Manager, Penrith City Council regarding flood evacuation capacity in the Hawkesbury-Nepean Valley, dated 25 May 2020, tabled by Mr Justin Field MLC.

Resolved, on the motion of Ms Sharpe: That the committee accept and publish the following document tendered during the hearing as a submission to the inquiry:

- Opening statement and two media releases tendered by Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney.

Resolved, on the motion of Mr Mallard: That the committee accept and publish the following document tendered during the hearing:

- March 2021 flood, Hawkesbury Nepean Valley, tendered by Ms Maree Abood, Head of Hawkesbury-Nepean Valley Flood Risk Management, Infrastructure NSW.

5. Adjournment

The committee adjourned at 1.50 pm, *sine die*.

Emma Rogerson
Committee Clerk

Minutes no. 13

Tuesday 21 September 2021

Select Committee on the Proposal to Raise the Warragamba Dam Wall

Via Webex, 1.02 pm

1. Members present

Mr Field, *Chair*

Mr Roberts, *Deputy Chair*

Mr Fang

Mr Mallard

Mr Martin

Mr Searle

Ms Sharpe

2. Previous minutes

Resolved, on the motion of Ms Sharpe: That draft minutes no. 12 be confirmed.

3. Correspondence

The committee noted the following items of correspondence:

Received

- 23 June 2021 – Email from Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney to secretariat, providing additional information to the inquiry in relation to floodplain buyouts

Resolved, on the motion of Mr Martin: That the committee authorise the publication of correspondence from Mr Sam Kernaghan, Director of Resilience Program, Committee for Sydney, providing additional information to the inquiry in relation to floodplain buyouts dated 23 June 2021.

4. Answers to questions on notice and supplementary questions

The following answers to questions on notice and supplementary questions were published by the committee clerk under the authorisation of the resolution appointing the committee:

- answers to questions on notice from NSW SES received on 9 July 2021
- answers to questions on notice from Insurance Council of Australia received on 9 July 2021
- answers to questions on notice from Infrastructure NSW received on 9 July 2021.

5. Interim Report – deliberative date

Resolved, on the motion of Ms Sharpe: That the committee hold a report deliberative on Thursday 30 September 2021 from 9.30 am until 1.00 pm.

6. Future hearings

Resolved, on the motion of Mr Searle: That the secretariat circulate to the committee via email possible hearing dates in late October and early November for agreement.

7. Adjournment

The committee adjourned at 1.21 pm, until 9.30 am, Thursday 30 September 2021 via Webex – interim report deliberative.

Emma Rogerson
Committee Clerk

Draft minutes no. 14

Thursday 30 September 2021

Select Committee on the Proposal to Raise the Warragamba Dam wall

Via videoconference, 9.32 am

1. Members present

Mr Field, *Chair*

Mr Roberts, *Deputy Chair*

Mrs Maclaren-Jones (substituting for Mr Fang)

Mr Mallard

Mr Martin

Mr Searle

Ms Sharpe

2. Draft minutes

Resolved, on the motion of Ms Sharpe: That draft minutes no. 13 be confirmed.

3. Submissions

3.1 Public submissions

Resolved, on the motion of Ms Sharpe: That the committee authorise the publication of submission nos. 163, 374, 375, 378, 379, 384.

3.2 Partially confidential submissions

Resolved, on the motion of Mr Searle: That the committee authorise the publication of submission nos. 20, 148, 280, 366, 371, 376, 377 with the exception of the author's name, which is to remain confidential, as per the request of the author.

Resolved, on the motion of Mr Martin: That the committee authorise the publication of submission no. 271, with the exception of identifying and/or sensitive information which are to remain confidential, as per the recommendation of the secretariat.

Resolved, on the motion of Mr Martin: That the committee authorise the publication of submission nos. 137, 146, 149, 159, 173, 262, 329, 335 with the exception of potential adverse mention which is to remain confidential, as per the recommendation of the secretariat.

3.3 Confidential submissions

Resolved, on the motion of Mr Martin: That the committee keep submission nos. 148, 233, 370, 372, 373 confidential, as per the request of the author.

4. Consideration of Chair's draft report

The Chair submitted his draft report entitled *Proposal to raise the Warragamba Dam wall: Interim Report*, which, having been previously circulated, was taken as being read.

Resolved, on the motion of Ms Sharpe: That Chapter 5 entitled 'Flood mitigation' be omitted and inserted instead after Chapter 1 entitled 'Background'.

Mr Roberts moved: That Recommendation 7 be omitted: 'That the NSW Government not proceed with the Warragamba Dam wall raising project should Registered Aboriginal Parties not give free, prior and informed consent for the project to proceed, as required in advice provided to the NSW Government by the Commonwealth Department of Agriculture, Water and Environment'.

Question put.

The committee divided.

Ayes: Mr Roberts.

Noes: Mr Field, Mrs Maclaren-Jones, Mr Mallard, Mr Martin, Mr Searle, Ms Sharpe.

Question resolved in the negative.

Mr Mallard moved: That Recommendation 10 be amended by omitting 'direct impact' and inserting instead 'indirect impact'.

Question put.

The committee divided.

Ayes: Mrs Maclaren-Jones, Mr Mallard, Mr Martin.

Noes: Mr Field, Mr Roberts, Mr Searle, Ms Sharpe.

Question resolved in the negative.

Resolved on the motion of Mr Searle: That Recommendation 10 be amended by omitting 'as a direct impact' after 'temporary inundation'.

Resolved on the motion of Mr Searle: That the following committee comment and recommendation be inserted after paragraph 5.49:

‘Committee comment

In this regard, the Committee notes the evidence of Professor Pittock (set out at paragraph 5.30), from Mr Draper of Infrastructure NSW and from Mr Whitworth of the Department of Planning, Industry and Environment [FOOTNOTE: Evidence, Mr Simon Draper, Chief Executive Officer, Infrastructure NSW, 25 November 2019, p 11; Evidence, Mr Brett Whitworth, Deputy Secretary, Greater Sydney, Place & Infrastructure, Department of Planning, Industry and Environment, 25 November 2019, p 11] on the need to improve road evacuation routes from flood risk areas. Evidence of the same nature was also given by representatives of affected local Councils Penrith, Hawkesbury, Blue Mountains and Wollondilly. [FOOTNOTE: Evidence, Mr Wayne Mitchell, Director—Development and Regulatory Services, Penrith City Council, 25 November 2019, p 25; Evidence, Mr Andrew Kearns, Manager Strategic Planning, Hawkesbury City Council, 25 November 2019, p 24]. Accordingly, the Committee recommends the NSW Government urgently develop, together with local councils, a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of Western Sydney. Notwithstanding the determination by the Hawkesbury-Nepean Flood Risk Management Taskforce (set out at 5.10), this should include both funding and clear timeframes for the upgrade of roads necessary to give effect to the plan.

Such an approach would be consistent with other evidence heard by the committee, including from Dr Keyes (at para 5.26 and following) and also from the Insurance Council of Australia (at para 5.43).

Recommendation X

That the NSW Government urgently develop, together with local councils, a comprehensive flood evacuation plan for the Penrith Valley and other flood-affected parts of Western Sydney. This should include both funding and clear timeframes for the upgrade of roads necessary to give effect to the plan.'

Resolved, on the motion of Mr Roberts: That Recommendation 15 be amended by omitting 'especially in options relating to lowering the full supply limit of the existing Warragamba Dam' and inserting instead 'including but not limited to lowering the full supply level of the existing Warragamba Dam, voluntary acquisition of the most vulnerable properties, upgrading evacuation roads and restricting future development on flood prone land'.

Resolved, on the motion of Ms Sharpe: That:

- a) The draft report as amended be the report of the committee and that the committee present the report to the House;
- b) The committee secretariat correct any typographical, grammatical and formatting errors prior to tabling;
- c) The committee secretariat be authorised to update any committee comments where necessary to reflect changes to recommendations or new recommendations resolved by the committee;
- d) Dissenting statements be provided to the secretariat within 24 hours after receipt of the draft minutes of the meeting;
- e) The report to be tabled by Tuesday 5 October 2021.

5. Adjournment

The committee adjourned at 10.00 am, until *Sine die*.

Emma Rogerson
Committee Clerk

