

# The Hon. Stuart Ayres MP

Minister for Enterprise, Investment and Trade Minister for Tourism and Sport Minister for Western Sydney

Mr David Blunt Clerk of the Legislative Council Parliament of New South Wales Macquarie Street SYDNEY NSW 2000

Dear Mr Blunt David,

I write to provide the NSW Government's response to the interim report of the Select Committee on the Proposal to Raise the Warragamba Dam Wall, for tabling in the Legislative Council.

The Hawkesbury-Nepean Valley has the highest unmitigated flood risk exposure in Australia. There is a legacy of more than 200 years of development, with more than 140,000 people currently living or working on the floodplain.

Since 2017, the NSW Government has been delivering the Hawkesbury-Nepean Valley Flood Risk Management Strategy to reduce and manage the risk of flooding – now and into the future. The strategy is the result of years of investigation into the best ways to reduce the high existing risk to lives, homes, livelihoods and critical infrastructure while considering environmental and heritage impacts.

Raising Warragamba Dam for flood mitigation was found to be the most effective infrastructure option to reduce the regional flood risk. There are no other flood mitigation measures that can achieve the same level of risk reduction.

The Environmental Impact Statement (EIS) for the proposal to raise Warragamba Dam wall was already on public exhibition prior to the committee tabling its report. Additionally, the planning determination process is ongoing. WaterNSW, as the dam owner and operator, is in the process of preparing a submissions report to address issues raised during the public exhibition period of the EIS, including biodiversity and Aboriginal cultural heritage matters. The NSW Government provides its response to the interim report while the planning determination and approval process is still ongoing.

Yours sincerely

The Hon. Stuart Ayres MP

Minister for Enterprise, Investment and Trade

Minister for Tourism and Sport Minister for Western Sydney NSW Government response to the interim report of the Select Committee on the Proposal to Raise the Warragamba Dam Wall

March 2022



## Response to recommendations

## Recommendation 1 Supported in principle

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.

## **Response:**

The NSW Government is committed to the open government principles of transparency, participation and collaboration. During the assessment of a State significant infrastructure (SSI) proposal, the NSW Government seeks to promote community participation and transparency by:

- publishing detailed information online about SSI projects and all NSW Government plans, policies and guidelines that are relevant to assessing the merits of projects
- encouraging proponents of SSI projects to start their community engagement as soon as possible during the development of the project, having regard to the Undertaking Engagement Guidelines for State Significant Projects
- using its statutory powers to require proponents to undertake effective community engagement during the development, assessment and carrying out of SSI projects
- where necessary and appropriate, undertaking its own community engagement on SSI projects, which may include holding community information sessions and carrying out targeted engagement (site visits, meetings and workshops) with key stakeholders to get a better understanding of community concerns and the matters raised in submissions
- considering relevant issues raised by the community in its detailed assessment of the merits of projects
- keeping the community informed about the progress, performance and compliance of SSI projects (which is generally done through the major projects website).

The Environmental Impact Statement (EIS) for the proposal to raise Warragamba Dam wall is being managed in line with standard government practices and requirements, including stakeholder and community engagement activities. Chapter 6 of the EIS summarises stakeholder and community consultation undertaken before and during the preparation of the EIS, and is available at

 $\underline{https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441\%2120210917T063810.417\%20GMT.$ 

The preparation and finalisation of any final business case on the proposal to raise Warragamba Dam for flood mitigation is a matter for the NSW Government, and as such will be managed in line with the current NSW Cabinet processes and protocols. A final business case summary will be made available after an investment decision is made.

Recommendation 2 Supported in principle

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.

## **Response:**

The Hawkesbury-Nepean Flood Emergency Sub Plan sets out arrangements for a flood emergency in the Hawkesbury-Nepean Valley. It is a sub plan of the State Emergency Management Plan and was endorsed by the State Emergency Management Committee in June 2020.

The sub plan is updated regularly to reflect contemporary flood risk information and learnings from flood response scenarios and flood events. The Hawkesbury-Nepean Flood Emergency Sub Plan is publicly available at <a href="https://www.nsw.gov.au/rescue-and-emergency-management/sub-plans/hawkesbury-nepean-flood">https://www.nsw.gov.au/rescue-and-emergency-management/sub-plans/hawkesbury-nepean-flood</a>.

In addition, the Hawkesbury-Nepean Valley Flood Risk Management Strategy identified the need to deliver a flood evacuation road resilience package to address local flooding on identified existing regional flood evacuation routes. Transport for NSW is leading this work and has undertaken local flood modelling and technical assessments to identify and prioritise appropriate infrastructure improvements. Transport for NSW is currently preparing a final business case for the program.

Recommendation 3 Noted

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.

## **Response:**

All feasible flood mitigation options for the Hawkesbury-Nepean Valley have been assessed and the most effective options have been reassessed several times over the past decade.

From 2014-2016, the Hawkesbury-Nepean Valley Flood Management Taskforce was independently chaired by Mr Mark Bethwaite AM and involved senior representatives and technical experts from 11 government agencies. This included government representatives from agencies responsible for various aspects of flood risk management, such as conservation and environment, water, transport, land use planning, emergency services, infrastructure, treasury and strategic policy and planning.

A stakeholder panel was also established to facilitate collaboration with relevant local councils, the Western Sydney Regional Organisation of Councils, Sydney Water, the Floodplain Management Association and the Insurance Council of Australia.

The Hawkesbury-Nepean Valley Flood Management Taskforce's work included a detailed options assessment of feasible flood mitigation options including:

- new dams
- altering Warragamba Dam either through raising the dam wall or operating the existing dam differently
- dredging long sections of the Hawkesbury River
- constructing river bypass channels
- local levees
- major regional road upgrades

• buying back large numbers of homes in the floodplain.

The Hawkesbury-Nepean Valley Flood Management Taskforce concluded that:

- lowering the permanent supply of Warragamba Dam would reduce Sydney's water supply while having limited flood mitigation benefits
- river diversion channels would involve significant high-cost in construction and very significant environmental impacts, while providing limited benefits
- river dredging would involve high to extreme environmental impact, high costs and limited benefits that would be restricted to lower parts of the floodplain
- major evacuation road upgrades would have a high net cost and would not reduce flooding impacts on homes and businesses
- compulsory house re-purchase in flood risk areas would involve extremely high costs and cause massive social upheaval for tens of thousands of people.

A summary of the options assessment is available in Table 1 (page xii-xiii) of the Taskforce Options Assessment Report, which is available at <a href="https://www.insw.com/media/1976/taskforce-options-assessment-report-2019-v2.pdf">https://www.insw.com/media/1976/taskforce-options-assessment-report-2019-v2.pdf</a>. Additional detail on flood risk management options are outlined throughout the 280-page report.

More recently, in line with the Secretary's environmental assessment requirements (SEARs), the dam raising option and potential feasible alternatives were reassessed to confirm the best option to reduce downstream flood risk. This analysis is outlined in Section 4.7 of Chapter 4 of the EIS, is available on the major projects portal at: <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063809.783%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063809.783%20GMT</a>.

Recommendation 4 Supported in principle

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.

## **Response:**

The Hawkesbury-Nepean has the highest unmitigated flood risk exposure in Australia. There is a legacy of more than 200 years of development with around 140,000 people currently living or working on the floodplain.

To reduce and manage the risk of flooding – now and into the future – the NSW Government has been delivering the Hawkesbury-Nepean Valley Flood Risk Management Strategy since 2017. The strategy is the result of years of investigation into the best ways to reduce the high existing risk to lives, homes, livelihoods and critical infrastructure while considering environmental and heritage impacts.

In developing the strategy, all feasible flood risk management strategies were assessed. It was determined that raising Warragamba Dam wall by 14m to hold back flood waters had the highest benefit to reducing flood risk.

While raising Warragamba Dam wall will make a significant difference to minimising flood risk in the Hawkesbury-Nepean Valley, no single option can eliminate all the risk. That is why the flood strategy has an integrated mix of infrastructure and non-infrastructure actions to respond to this ongoing risk.

One of the outcomes of the Hawkesbury-Nepean Valley Flood Risk Management Strategy -that sits alongside the raising of Warragamba Dam - is improving strategic and integrated land use and road planning. An action of the strategy is the development of a regional land use planning framework to take account of the impacts of growth across the floodplain. The framework will help improve the resilience of the valley to floods, including managing the impact of cumulative growth on road evacuation capacity and risk to life, and developing flood-

#### resilient building controls.

In addition, the Hawkesbury-Nepean Valley Flood Risk Management Strategy identified the need to deliver a flood evacuation road resilience package to address local flooding on identified existing regional flood evacuation routes. Transport for NSW is leading this work and has undertaken local flood modelling and technical assessments to identify and prioritise appropriate infrastructure improvements. Transport for NSW is currently preparing a final business case for the program.

A copy of the strategy is available at <a href="https://insw.com/media/2855/infrastructure-nsw-resilient-valley-resilient-val

Recommendation 5 Supported

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.

## **Response:**

Chapter 4 of the EIS details the various alternatives to the proposal that have been considered. In line with the SEARs, the dam raising option and potential feasible alternatives were reassessed to confirm the best option to reduce downstream flood risk.

The reassessment within the EIS considered:

- raising Warragamba Dam spillway levels to create a flood management zone
- lowering the full supply level of Warragamba Dam by 5m
- lowering the full supply level of Warragamba Dam by 12m
- building new or upgrading regional evacuation routes
- buying back all dwellings within the 1 in 100 chance per year flood level
- preventing future dwellings within the 1 in 500 chance per year flood level.

This analysis is outlined in Chapter 4 (section 4.7) of the EIS, available at <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063809.783%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063809.783%20GMT</a>.

Previous assessments of all viable options to reduce flood risk in the Hawkesbury-Nepean, are available in the Hawkesbury-Nepean Valley Flood Risk Management Strategy and Taskforce Options Assessment Report. Both documents are available on the Infrastructure NSW website at <a href="https://insw.com/expert-advice/hawkesbury-nepean-flood-risk-management-strategy/">https://insw.com/expert-advice/hawkesbury-nepean-flood-risk-management-strategy/</a>.

Recommendation 6 Supported in principle

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

#### Response:

Appendix J of the EIS contains the World Heritage Assessment Report. It provides an assessment of the potential impacts of the proposal on World Heritage Areas. Appendix J is available on the major projects portal at <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT</a>.

Following the public exhibition of the EIS, submissions that relate to World Heritage Areas are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared.

Recommendation 7 Noted

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.

## **Response:**

Departmental comments provided as part of the pre-exhibition SEARs review were considered by the proponent, WaterNSW. In September 2021 the then Department of Planning, Industry and Environment (DPIE) determined that the EIS was ready for exhibition.

As part of the EIS assessment of upstream biodiversity values an analysis was carried out to estimate the areas of habitat that is used by animal and plant species on the Department of Agriculture, Water and Environment's (DAWE) priority lists, and how much of this was affected by the bushfire event. Based on the analysis, it was identified there were still substantial areas (mostly >50%) of unburnt habitat in the upstream impact area. Details of this analysis is outlined in Section 8.3.11 of Chapter 8 of the EIS, available at <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063811.073%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063811.073%20GMT</a>.

In March 2020, DPIE released the Guideline for applying the Biodiversity Assessment Method at severely burnt sites. The guideline aims to provide assessors with a reasonable, evidence-based and transparent process for identifying severely burnt native vegetation. It outlines the approach to identifying the biodiversity values that existed on the land prior to severe bushfire for the purposes of preparing or finalising a Biodiversity Development Assessment Report (BDAR). The guideline states where field investigations have been completed prior to a severe bushfire - as was the case with the EIS - the assessor should use this information to prepare the impact assessment. A copy of the guideline is available at <a href="https://www.environment.nsw.gov.au/research-and-publications/publications-search/guideline-for-applying-biodiversity-assessment-method-at-severely-burnt-sites-assessment-reports.">https://www.environment.nsw.gov.au/research-and-publications-search/guideline-for-applying-biodiversity-assessment-method-at-severely-burnt-sites-assessment-reports.</a>

Appendix J of the EIS contains the World Heritage Assessment Report. It provides an assessment of the potential impacts of the proposal on World Heritage Areas. Appendix J is available on the major projects portal at <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT</a>.

Submissions on the EIS that relate to bushfire are currently being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report currently being prepared.

Recommendation 8 Supported in principle

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.

#### Response:

Departmental comments provided as part of the pre-exhibition SEARs review were considered by the proponent, WaterNSW. In September 2021 DPIE determined the EIS was ready for exhibition.

Appendix J of the EIS contains the World Heritage Assessment Report. It provides an assessment of the potential impacts of the proposal on World Heritage Areas. Appendix J is available on the major projects portal at <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT</a>.

Following the public exhibition of the EIS, submissions that relate to World Heritage Areas are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared. When the submissions report is accepted by DPIE, it will be made publicly available on the major projects portal at: <a href="https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising">https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising</a>.

Recommendation 9 Supported in principle

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.

#### **Response:**

There is no single option or simple solution that can eliminate all the flood risk in the Hawkesbury-Nepean Valley.

To reduce and manage the risk of flooding – now and into the future – the NSW Government has been delivering the Hawkesbury-Nepean Valley Flood Risk Management Strategy since 2017. The strategy is the result of years of investigation into the best ways to reduce the high existing risk to lives, homes, livelihoods and critical infrastructure while considering environmental and heritage impacts.

The outcomes of the Hawkesbury-Nepean Valley Flood Risk Management Strategy provide an integrated mix of action to respond to the flood risk. These outcomes are:

- 1. Coordinated flood risk management across the Hawkesbury-Nepean Valley, now and in the future
- 2. Reduced flood risk in the Hawkesbury-Nepean Valley by raising Warragamba Dam wall
- 3. Strategic and integrated land use and road planning
- 4. Accessible contemporary flood risk information
- 5. An aware, prepared and responsive community
- 6. Improved weather and flood predictions
- 7. Best practice emergency response and recovery
- 8. Adequate local roads for evacuation

9. Ongoing monitoring and evaluation, reporting and improvement of the flood strategy.

Across the NSW Government work is continuing to implement all of these outcomes.

The EIS for the proposal to raise Warragamba Dam wall for flood mitigation concluded with the proposed offset approach there would be no net loss of values within the Greater Blue Mountains World Heritage Area. Appendix J of the EIS contains the World Heritage Assessment Report. It provides an assessment of the potential impacts of the proposal on World Heritage Areas. Appendix J is available on the major projects portal at <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063833.408%20GMT</a>.

Following the public exhibition of the EIS, submissions that relate to World Heritage Areas are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared. When the submissions report is accepted by DPIE, it will be made publicly available on the major projects portal at: https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising.

The final decision on the Warragamba Dam Raising proposal is subject to completion of the planning assessment and an investment decision.

Recommendation 10 Supported in principle

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.

#### **Response:**

The EIS was publicly exhibited and the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Committee was advised of the exhibition details in writing by the Australian Government.

Recommendation 11 Supported in principle

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.

## **Response:**

While free, prior and informed consent is not a requirement under NSW law, the NSW Government is listening to and considering the concerns raised by traditional owners.

Since the project commenced in 2017, 22 representatives from the Aboriginal community registered to be involved in the assessment process for the proposal. These representatives are Registered Aboriginal Parties. Consultation is being undertaken in accordance with the NSW Government's Aboriginal Cultural Heritage Consultation Requirements for Proponents. Details of consultation to inform the EIS are outlined in Section 6.5 of Chapter 6 of the EIS, available at

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063810.417%20GMT. Consultation with the Registered Aboriginal Parties continues.

Following the public exhibition of the EIS, submissions that relate to Aboriginal cultural heritage are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is

currently being prepared. When the submissions report is accepted by DPIE, it will be made publicly available on the major projects portal at: <a href="https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising">https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising</a>.

Recommendation 12 Supported in principle

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

## **Response:**

Chapter 18 of the EIS contains details about the Aboriginal Cultural heritage assessment that informed the EIS. This included both an archaeological assessment as well as a cultural values assessment. A copy of Chapter 18 is available on the major projects portal at

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210920T034335.797%20GMT.

Since the project commenced in 2017, the involvement of Aboriginal representatives in the consultation process has complied with the NSW Government Aboriginal Cultural Heritage Consultation Requirements for Proponents. Consultation with the Registered Aboriginal Parties continues.

Following the public exhibition of the EIS, submissions that relate to Aboriginal cultural heritage are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared. When the submissions report is accepted by DPIE, it will be made publicly available on the major projects portal at: <a href="https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising">https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising</a>.

Recommendation 13 Supported in principle

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).

## **Response:**

Chapter 18 of the EIS contains details about the Aboriginal Cultural heritage assessment that informed the EIS. This included both an archaeological assessment as well as a cultural values assessment. A copy of Chapter 18 is available on the major projects portal at

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210920T034335.797%20GMT.

Since the project commenced in 2017, the involvement of Aboriginal representatives in the consultation

process has complied with the NSW Government Aboriginal Cultural Heritage Consultation Requirements for Proponents. Consultation with the Registered Aboriginal Parties continues.

Following the public exhibition of the EIS, submissions that relate to Aboriginal cultural heritage are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared. When the submissions report is accepted by DPIE, it will be made publicly available on the major projects portal at: <a href="https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising">https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising</a>.

Recommendation 14 Supported

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

#### **Response:**

The likely impacts on biodiversity, and the offset strategy, are outlined over several chapters of the EIS (available at <a href="https://pp.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising">https://pp.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising</a>):

- Chapter 8 provides an assessment of upstream biodiversity during the operation of the flood mitigation zone. This is supported by the biodiversity assessment report at Appendix F1.
- Chapter 9 provides an assessment of downstream biodiversity during the construction and operation of the flood mitigation zone. This is supported by the biodiversity assessment report at Appendix F2.
- Chapter 10 provides an assessment of biodiversity during construction of the increased height of Warragamba Dam wall. This is supported by the biodiversity assessment report at Appendix F3.
- Chapter 11 provides an assessment of aquatic ecology during the construction and operation of the flood mitigation zone.
- Chapter 12 provides an assessment of the potential impacts of the proposal on matters of national environmental significance related to listed threatened species and communities, and to migratory species.
- Chapter 13 provides details of the biodiversity offset strategy.

Following the public exhibition of the EIS, submissions that relate to the biodiversity impact assessment and offsetting requirements for the project are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared.

Recommendation 15 Supported in principle

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.

## **Response:**

Departmental comments provided as part of the pre-exhibition SEARs review were considered by the proponent, WaterNSW. In September 2021 DPIE determined that the EIS was suitable for exhibition.

The likely impacts on biodiversity, and the offset strategy, are outlined over several chapters of the EIS (available at <a href="https://pp.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising">https://pp.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising</a>):

- Chapter 8 provides an assessment of upstream biodiversity during the operation of the flood mitigation zone. This is supported by the biodiversity assessment report at Appendix F1.
- Chapter 9 provides an assessment of downstream biodiversity during the construction and operation of the flood mitigation zone. This is supported by the biodiversity assessment report at Appendix F2.
- Chapter 10 provides an assessment of biodiversity during construction of the increased height of Warragamba Dam wall. This is supported by the biodiversity assessment report at Appendix F3.
- Chapter 11 provides an assessment of aquatic ecology during the construction and operation of the flood mitigation zone.
- Chapter 12 provides an assessment of the potential impacts of the proposal on matters of national environmental significance related to listed threatened species and communities, and to migratory species.
- Chapter 13 provides details of the biodiversity offset strategy.

Following the public exhibition of the EIS, submissions that relate to the biodiversity impact assessment and offsetting requirements for the project are being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report that is currently being prepared.

Recommendation 16 Noted

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.

#### **Response:**

As part of the EIS assessment of upstream biodiversity values, an analysis was carried out to estimate the area of habitat used by animal and plant species on DAWE's priority lists and how much of this was affected by the 2019-2020 bushfire event. Based on the analysis, it was identified there were still substantial areas (mostly >50%) of unburnt habitat in the upstream impact area. Details of this analysis is outlined in Section 8.3.11 of Chapter 8 of the EIS, available at

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSI-8441%2120210917T063811.073%20GMT.

In March 2020, DPIE released the Guideline for Applying the Biodiversity Assessment Method at Severely Burnt Sites. The guideline aims to provide assessors with a reasonable, evidence-based and transparent process for identifying severely burnt native vegetation. The guideline states where field investigations have been completed prior to a severe bushfire, as was the case with the EIS, the assessor should use this information to prepare the impact assessment. A copy of the guideline is available at

 $\underline{https://www.environment.nsw.gov.au/research-and-publications/publications-search/guideline-for-applying-biodiversity-assessment-method-at-severely-burnt-sites-assessment-reports.}$ 

Submissions on the EIS that relate to bushfire are currently being considered. They will be addressed by the proponent, WaterNSW, as part of the submissions report currently being prepared. When the submissions report is accepted by DPIE, it will be made publicly available on the major projects portal at: https://www.planningportal.nsw.gov.au/major-projects/projects/warragamba-dam-raising.

