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Australian Government  
Department of Climate Change, Energy, the Environment and Water

**Submission on the National Adaptation Plan Issues Paper**

Thank you for the opportunity to contribute to the consultation on the National Adaptation Plan Issues Paper.

The [Water Services Association of Australia \(WSAA\)](#) is the peak industry body representing the urban water sector. Our members provide water and sewerage services to over 24 million customers in Australia and New Zealand and many of Australia's largest industrial and commercial enterprises. The water sector in Australia, collectively owns \$200 billion in water and wastewater assets, with total revenue of \$20 billion and total capital spend of nearly \$7 billion in 2022-23. WSAA facilitates collaboration, knowledge sharing, networking, and cooperation within the urban water sector.

With our members, we have driven sector-wide advances to address climate risks and seize opportunities as we transition toward a low carbon economy. The [WSAA Climate Change Adaptation Guidelines](#) published in 2016 are still widely used across the sector, among more recent WSAA publications which include [Towards Resilience: Climate Change and the urban water industry in Australia and New Zealand](#) and [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#).

The water sector is very supportive of efforts of the Australian Government in the development of a National Adaptation Plan supported by a National Climate Risk Assessment, and we welcome the opportunity to provide our feedback. Water utilities face vulnerability to climate change due to their reliance on long-term fixed assets (often located in waterline areas), heavy dependence on rainfall for service provision, and the dependency vulnerable communities have on water utility services for human and environmental health. Utilities are also considering the materiality of climate impacts in terms of their pricing to the communities they provide their services to now and in future.

The water sector has well established and embedded processes to address its dependency on rainfall through water resource plans and drought response plans. These have been elevated in recent years from climate change impacts, which has seen the transition to rainfall independent sources, such as increased uptake and plans for desalination and the emergence

of purified recycled water to support drinking water sources, as summarised in the [WSAA All Options on the Table - Lessons from the journeys of others](#). The [WSAA Towards Resilience Publication](#) provides case study summaries of water utility climate adaptation measures, which are typically addressed through water utility Climate Change Adaptation Plans, adaptive management practices and embedding climate adaptation measures within broader Climate Change Strategies. These efforts are in addition to working alongside government in management of critical utility assets and emergency management plans.

Common barriers to broad implementation of climate adaptation measures across the sector tend to be access to appropriate, accessible and trusted data for scenario planning (although leaders within the sector have reached this stage), board understanding across utility business functions to embed and understand what future climate will mean to make appropriate adjustments or interventions, and the lack of standardised and well recognised economic frameworks to support business cases for climate adaptation interventions. The water sector also recognises place-based opportunities to work in partnership with Aboriginal and Torres Strait Islander people on climate adaptation plans, such as the examples provided in further detail in Question 12 on the Dja Dja Wurrung Climate Change Strategy and the Victorian Government Water Cycle Climate Change Adaptation Action Plan.

Recent global and local climate shocks have propelled the water sector forward in its understanding of interdependencies of systems within the built environment during climate shock events and addressing climate risk, with key learnings summarised in [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#) which are drawn from in this submission.

Our key comments to the National Adaptation Plan Issues Paper Consultation questions are provided below, which have been numbered in order of occurrence in Appendix C of the Climate Change Adaptation Issues Paper.

## **Foundations for a National Adaptation Plan**

- 1. What do you think a well-adapted and resilient Australia looks like? Does the draft vision capture this? Why, why not? Do you agree with the key objectives of the plan? What other suggestions do you have?**

*The draft vision 'Australia's economy, society, and natural and built environments are being managed and invested in, to reduce climate impacts and harness any opportunities now and into the future – by all levels of government, business and community.'*

The draft vision could include that climate impacts and risks are well understood by all levels of government, business and community. Having this included in the vision with the improvement in climate adaptation literacy across the country is expected to support all levels of adaptation across all scales. The objective detailed in the plan of 'mainstreaming' climate adaptation across the country is well supported and a solid foundation to support adaptation across the country.

The Infrastructure & Built Environment System shares a vision of mainstreaming for that system (p. 22), it would be good to see more integration and references to the role of nature-based approaches and 'green and blue' interventions within the built environment in this vision. Blue and green interventions in the built environment are well understood to reduce urban heat effect, enhance biodiversity and human health. [WSAA's Blue X Green = Thriving blueprint](#) shares a vision for the built environment that embraces blue and green spaces with significant climate adaptation benefits.

## **2. The plan will respond to the priority nationally significant risks identified in the National Climate Risk Assessment. Within those, what areas should be the Commonwealth's priority for this National Adaptation Plan and why?**

Priority nationally significant risk to **cross-system water security** should remain a priority, as identified in the [WSAA Closing the Water for People and Communities Gap](#). While the issue is being addressed in existing initiatives detailed in the Adaptation Plan Issues Paper (pp. 32 – 25), the criticality of water remains crucially important to support livelihoods and progress in this area should be tracked.

An example of how water security impacts on physical and mental health and wellbeing for indigenous communities is well highlighted in this short [video](#), in the community at Walgett, NSW. In operating at the national scale, the value is in realising where the greatest benefit can be gained to help reach the mainstreaming vision alongside addressing key priority risks identified. Periodic review of the risk assessment and involvement of a wide range of stakeholders is recommended in future iterations.

## **3. What is working well in adaptation policy governance at the national level? Are there more opportunities for collaboration, or institutional changes that will help build a more adapted Australia?**

We support the recommendation of the Climate Change Authority for the Adaptation Plan to be legislated and updated every five years, providing a level of commitment for

ongoing continuous improvement. Opportunities to strengthen collaboration across business, government and communities are strongly supported, these may be progressed through city-scale and place-based plans across service providers, and/or cross jurisdictional collaboration opportunities, further detail on how collaboration supported adaptation outcomes in different global case studies is provided in Question 7.

#### **4. How should adaptation success be measured?**

From a water sector perspective, adaptation plans tend to measure against the implementation of an organisations' adaptation plan and any expected benefits or outcome areas derived from the climate risk assessment. Progress or success measures tend to be on the implementation of agreed actions. There are measures of resilience which are listed in Question 11 that may be applicable. Consideration of a measure for how well climate adaptation is mainstreamed within and across organisations could be an important measure of success at the national level given the objectives provided in this plan, along with tracking of measures and actions to address key national climate risks.

#### **5. What time horizon should the National Adaptation Plan cover?**

A five-year period provides an adequate timeframe to enable update from the latest IPCC and other scientific reports and tends to be a commonly adopted period for the climate adaptation planning horizon.

#### **6. Do you support the draft principles for prioritising and sequencing adaptation actions over time? Why or why not? Are there any gaps?**

We support the draft principles for prioritising actions listed (pp. 11-12). In address to assisting groups disproportionately affected by climate change impacts, the [National Strategy for Just Adaptation 2022](#) is recommended as a good resource for consideration of its application.

### **Infrastructure & Built Environment – System Questions**

#### **7. What other existing policies are supporting adaptation for this system?**

State based policies and regulations can provide a driver for organisations to develop adaptation plans. In Victoria the establishment of Integrated Water Management Forums where key water cycle managers (local councils, water utilities, bulk water suppliers and

catchment managers) work together to prioritise projects has led to some gains in providing greater adaptation and place-based, integrated water management outcomes. Challenges have been around ongoing funding, the prioritisation processes and keeping a bank of possible projects current should funding become available to implement them.

While the collaborative process takes time, the benefits of multiple parties working towards the same goal of resilience building have been found to often help build complimentary knowledge, authority and funding pools. Opportunities such as sharing costs across agencies to deal with a common hazard (increasing flood events) can provide multiple benefits for all (details in [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies.](#)). Integrated cost sharing approaches can also support water sensitive approaches to flood risk management as found in the UK, where adapting to climate change can have multiple objectives – improving liveability by bringing water into the urban environment and creating habitat for wildlife and recreational spaces for residents. Collaborations have also been found to be effective across international jurisdictions between New York City and Copenhagen City to build resilience efforts against city-based flooding (details in [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies.](#)).

## **8. Who should be undertaking action to strengthen adaptation action in this system?**

The asset owners of the built environment should be primarily responsible for the climate risks associated with their assets and service provision. However, this can be complimented by collaboration across service providers which will help address interdependencies and cascading of events during climate shocks, providing better outcomes for the communities that live in the built environment.

As highlighted in the [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies.](#) building partnerships and long-term, mutually beneficial relationships with a broad range of agencies, including the private sector, creates the collaboration and data sharing needed for project alignment and adaptation strategy implementation, this should be driven at the state and city levels. Key stakeholders include water utilities, local and state government, transport, energy, community groups, Traditional Owners and First Nations groups.

## **9. What are the barriers to strengthening adaptation? How could the National Adaptation Plan help with these?**

Key barriers to strengthening adaptation is a lack of consistency in applied climate scenarios which can occur between different organisations at the same location. Within the water sector there have been divergent adoption of climate scenarios between bulk water suppliers and water retailers, for example, when they service the same area. It is expected that this could be the case across different sectors within the built environment. The opportunity for particularly local government to work with water utilities, supported by state and federal government for consistent use of climate scenarios in the address of intersecting hazards would be a good start and important for confidence and progression of mainstreaming climate adaptation.

Addressing the barrier of consistently applied data will provide confidence in scenario planning to help support adaptation projects in their development. However, this could be complemented through alignment and collaboration with economic regulators to provide the enabling financial environment for adaptation to be mainstreamed in business cases and projects (detailed further in Question 10).

The National Adaptation Plan could help with the following areas for the built environment:

- Federal support for regional collaboration and inter-sector collaborations, including the consistent adoption of climate scenarios where appropriate,
- Federal support for economic regulation that supports investment in climate adaptation interventions,
- Federal or policy development to support enhancing the understanding of interdependencies across the built environment, and broader understanding across the built environment of the criticality of water service provision and its impacts on human and environment health.

The case studies below further highlight opportunities to address the barrier of cost in the implementation of adaptation measures, drawn from the [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#).

Tripple Bottom Line (TBL) economic analysis was effectively used to enable investment in city-wide adaptation approaches in New York and Copenhagen. In these cases, the avoided costs of implementing climate adaptation were also determined, which strengthened the case for climate adaptation, as the cost of no or inadequate adaptation was much higher than the cost of the adaptation interventions.

The setting of industry standards and minimum levels of service has meant in some sectors that the inclusion of climate shock resilience (such as flooding) has been enabled through traditional business cases and/or pricing determinations, and importantly that the funding of climate adaptation measures was expected by the pricing regulator, and therefore supported.

#### **10. What policies could be strengthened or added as the highest priorities?**

While not a policy, ensuring the Australian climate-related disclosure metrics are fit for purpose, could provide a helpful measure of progress in climate adaptation. We note the Australian Accounting Standards Board (AASB) decided not to publish the industry-based guidance accompanying the IFRS S2, or include references to Sustainability Accounting Standards Board (SASB) Standards, until the content has been comprehensively internationalised by the International Sustainability Standards Board (ISSB) and has undergone the AASB's own due process. This gap (without industry-based metrics), leaves water utilities captured by the Corporations Act left to make their own interpretations which will lead to inefficiencies and inconsistencies across the sector. WSAA has a proven track record for developing industry standards that can support alignment and consistency across the sector while providing a genuine measure of progress in climate adaptation and will be engaging with the AASB on the opportunity to develop water sector metrics.

An identified priority area that can strengthen climate adaption implementation is to support policies for economic regulation to better reflect the cost impacts from climate change, some ideas drawn from [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#). are provided below:

- The incorporation of the cost of climate adaptation into the cost of delivering an operationally reliable asset or agreed service levels; and strengthen funding requests by quantifying the risk and cost of “doing nothing” to adapt to climate shocks.

- The incorporation of avoided costs of undertaking the adaptation/building resilience into water utilities and other sector assets. These can include costs associated with emergency responses, clean-up, asset repairs and replacement, customer compensation and potential reputational damage.
- Collaboration with economic regulators to consider the different economic assessment approaches used in the case studies presented in (e.g. Ofwat's (UK) Value Framework) to understand how to best represent costs and benefits of addressing climate adaptation requirements, and gain customer support for any additional costs.

#### **11. What measurement and evaluative tools and processes should be implemented to track adaptation progress for this system?**

As noted in the [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#), there are four common steps to implementing climate adaption within an organisation:

1. Understanding climate risk to determine design standards.
2. Determine acceptable level of service.
3. What resilience measures are needed to meet the agreed levels of service.
4. When to implement resilience measures.

Evaluations that consider the extent that these steps have been embedded across an organisation could provide a measure of progress for the built environment system.

At the national scale tracking of Australia's progress for the built environment could be evaluated through indicators of **resilience outcomes** which could include measures of **robustness, flexibility** and **preparedness**. These outcomes were assessed across a variety of climate shocks in ten global case studies of the built environment, which included the following sectors: transport, electricity, water, stormwater, housing and wastewater. Further detail is provided in the [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#).



Quantitative measures could be the number of business cases within an organization that consider future climate and have altered designs to provide a climate adaptation benefit. This would require clear criteria, such as those detailed in Question 10.

Qualitative measures could be organisational capacity, leadership and acceptance in the use of climate scenarios, along with levels of cross-collaboration with other sectors servicing the same area. Cross collaboration, while can require longer time horizons have been found to provide opportunities such as sharing costs across agencies to deal with a common hazard (increasing flood events), providing multiple benefits for all. Integrated cost sharing approaches can also support water sensitive approaches to flood risk management as found in the UK, where adapting to climate change can have multiple objectives – improving liveability by bringing water into the urban environment and creating habitat for wildlife and recreational spaces for residents.

A key identified enabler common to all case studies in the [WSAA/Institute for Sustainable Futures report- Building Utility Resilience to Climate Shocks – Lessons from Global Case Studies](#) and relevant to sectors working in the built environment is **Knowledge & Experience**. This demonstrates the importance of organisational capacity building for successful climate adaptation implementation. This includes sound knowledge within an organization, that covers both the understanding of impacts and possible response measures. This knowledge and experience capacity is key to shift from the BAU process to ones that incorporate climate adaptation measures. Attributes include:

- acceptance of climate science as valid input to planning assumptions.
- cultural alignment on the approach for addressing climate risks from the board to project teams.
- a process for understanding climate impacts at the asset level to inform the climate adaptation response.
- collaboration with experts from the private sector and research institutions that enhanced internal capability for the institutions leading the adaptation initiatives. Beneficial for problem definition and planning stages.
- embedding continual review and reflection of performance of infrastructure in terms of resilience to climate shocks.

## Specific questions for the First Nations' values and knowledges system

The [National Strategy for Just Adaptation 2022](#) developed through state-by-state consultation with Traditional Owners and other diverse communities lays the principles and ethos of ensuring action on climate change is fair, equitable and just for all. The Strategy outlines the extensive Traditional Owner knowledge and experience of adapting to environmental change and highlights a pathway for responding to climate change through a healing centered approach. The report outlines 5 building blocks and priority reform areas which could be drawn from in the National Adaptation Plan applicable to the area of First Nations' Values and Knowledge Systems, while also embedded across other identified systems. This strategy is drawn from along with the [Dja Dja Wurrung Climate Change Strategy](#) in the formation of the responses below.

### **12. What are some examples of First Nations-led adaptation action and partnerships? How can these actions and partnerships be better supported?**

The [Dja Dja Wurrung Climate Change Strategy](#) provides a holistic approach to climate action, including Traditional Owner-led examples of putting climate adaptation into practice. The Dja Dja Wurrung approach to adaptation has been influential in the Development of Victoria's Climate Change Adaptation Action Plan, as you will find written in their Climate Change Strategy and Victoria's [Water Cycle Climate Change Adaptation Action Plan](#). The Dja Dja Climate Change Strategy identifies possible partners and protocols for how government agencies should engage with them. The Djaara relationship with the Victorian Government provides an example of an effective partnership to demonstrate the opportunities to support self-determining climate adaptation measures led by Traditional Owners. Partnerships can be better supported when funding agreements allow for sufficient time for Traditional Owners to carry out due process of engagement and when existing meaningful engagements are utilized to reduce time and effort, such an example is leveraging from the work of the [National Strategy for Just Adaptation 2022](#), which is favorably referenced in the [Dja Dja Climate Change Strategy](#).

### **13. Along with First Nations peoples, who should be undertaking action to strengthen First Nations-led adaptation action and partnerships?**

All sectors and stakeholders have a role in supporting First Nations-led adaptation actions. There are opportunities for First Nations adaptation measures across all sectors of the systems within this plan. Importantly, partners should understand local protocols for engagement and have a clear understanding of self-determination being at the center of the adaptation actions. The [Dja Dja Wurrung Climate Change Strategy](#) provides some examples of external partnership opportunities that can support First Nations-led climate action.

### **14. What are the barriers to strengthening First Nations-led adaptation action and partnerships? How could the plan help with these?**

In addition to challenges raised in Question 12, barriers are expected to be around allowing sufficient time for meaningful engagement and appropriate protocols to be followed and funding time horizons allow for sufficient time for projects to be implemented.

### **15. What First Nations-led adaptation actions and partnerships should be prioritised now to support medium-term (2050) and long-term (2100) adaptation?**

The prioritisation should be informed by the appropriate Indigenous organisations.

### **16. What First Nations' knowledges frameworks can support measurement and evaluative tools and processes to track adaptation progress?**

Suggest frameworks for measurement and progress tracking to be developed by First Nations People. The Climate Action knowledge hub could be a good place to develop and share ideas for tracking progress.



## **17. What are the biggest opportunities for First Nations peoples in the context of the National Adaptation Plan?**

Potential for national funding support to implement the recommendations of the 2021 First Nations Peoples Statement on Climate Change. This includes the establishment of the indigenous-led climate action knowledge hub to fund indigenous-led mitigation and adaptation projects and support for the annual knowledge sharing event.

WSAA is very supportive of the development of a National Adaptation Plan and welcome future opportunities to support its development. To discuss our submission in more detail please contact Meg Humphrys at 0418 406 307 and [meg.humphrys@wsaa.asn.au](mailto:meg.humphrys@wsaa.asn.au)

Yours sincerely,

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