



AUSTRALIAN WATER

ASSOCIATION

Submission in response to the Discussion Paper - Seeking views on a future National Water Agreement

Prepared by the Australian Water Association for the
Department of Climate Change, Energy, the Environment
and Water

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The Australian Water Association acknowledges the Traditional Custodians across Australia, where we live, work and play, for their deep connection to our precious waters and land. We pay our respects to Elders past and present, and the ancestors who have cared, protected and nurtured Country for many thousands of years.

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Key observations and recommendations

The Australian Water Association (AWA) is in general agreement with the objectives outlined in the Discussion Paper, recognising their alignment with our strategic priorities to drive a sustainable water future in Australia and the Asia Pacific. The seven objectives cover the essential attributes necessary for a National Water Agreement. While there is overlap among these objectives, we have aligned our responses below for greatest relevance and clarity.

Additionally, we propose synthesising the 31 principles outlined in the Discussion Paper underpinning the seven objectives, advocating for a reduction in number to enhance focus and practicality. Our suggested principles for further discussion aim to foster integrated water resource management, enhance community and stakeholder engagement, ensure transparent and trustworthy governance, promote data-driven and knowledge-based management, prioritise sustainable use and efficiency, and support economic instruments for water management.

Our submission emphasises the necessity of considering water within the broader ecosystem, highlighting interdependencies with other critical infrastructure and services to be considered to achieve comprehensive social, environmental, and economic outcomes. The primary goal of the proposed National Water Agreement (NWA) should be to ensure equitable water access for all Australians, adhering to Australian Drinking Water Quality Guidelines, while also embracing and integrating Aboriginal and Torres Strait Islander knowledge into water management practices. This holistic approach will support not only immediate policy goals but also the long-term sustainability and resilience of water resources management in Australia.

In addition to our full recommendations below, to further progress the positive impacts of the National Water Initiative (NWI), AWA recommends focusing on the following three priority areas for policy development in the NWA:

1. **Improved National Level Articulation of Integrated Water Management (IWM)** – as climate change and population growth continue to place pressure on assets and water supplies, IWM solutions will play a crucial role in achieving water security for communities, industries, and the environment. There is a need to broaden traditional IWM approaches beyond recycled water to include stormwater, groundwater, and environmental flows.
2. **Focus on Climate Variability** – greater focus and cross-sectoral planning and oversight of the impacts of increasing, and more variable, floods, droughts, and extreme weather events.
3. **Independent Oversight and Advice** – to build consistency and connectivity between jurisdictions, reinvigorate action on water reform and effectively incorporate water into climate change responses, AWA recommends an independent entity with longevity and the ability to develop deep contextual understanding be set up to oversee water reform and provide advice and guidance on water management.

Funding will need to be made available to incentivise adoption of innovative solutions or new approaches.

These priorities are essential for meeting the demands of climate change, demographic shifts, and for embedding water reform into broader climate response strategies. AWA looks forward to partnering with the Australian Government and other stakeholders to implement these reforms, further enhancing Australia's water management framework in alignment with global sustainability goals and ensuring the continued health and prosperity of our communities and environment.

AWA and our members

Who we are

AWA is Australia's largest water network. We are motivated by the opportunity to create a more sustainable and inclusive water future. A future where our members have the skills, expertise, and networks to adapt to an ever-changing climate and where innovation is celebrated and promoted. Where collaboration and deep engagement with Aboriginal and Torres Strait Islander people is practiced and expected and where water has a voice in the community, is understood, and revered.

AWA is committed to building Australia's water capabilities to maintain its position as a world leader in water management. We provide individuals with career enrichment and organisations with business development opportunities as we share information and knowledge, connect members with industry and stakeholders, and inspire a sustainable water future. Through our extensive range of technical seminars, courses, and conferences, we provide a forum for debate and best practice dissemination at a state, national and international level.

AWA is a leader in international collaboration and networking in water, delivering a range of initiatives that showcase learnings from Australia's water reform journey, and create opportunities for the Australian water sector. We are proud to work and learn together with our international neighbours as they also strive for a sustainable water future.

Our members

AWA's 5000+ individual and 600+ corporate members cover every facet of the water sector, including professionals and practitioners working in utilities, government agencies, engineering, urban design and planning, science, research, academia, energy, resources, manufacturing, mining, and agriculture.

Our purpose and focus areas

AWA aims to inspire and drive a sustainable water future where water is recognised by all as essential to economic prosperity, health, the environment, and Aboriginal and Torres Strait Islander' connection to Country.

AWA's strategic plan, which was developed by and for our members, outlines how the association will:

- Continue to grow a more diverse, connected, inclusive, impactful, and influential membership.
- Build thought leadership and programs in Australia, Southeast Asia and the Pacific that promote and deliver sustainable water outcomes for all.
- Strengthen our Indigenous and community collaboration, creating a culturally safe space for the sharing of indigenous water management practices and celebrate collaborations that deliver positive change.

Background – AWA 2017, 2020, and 2024 NWI Productivity Commission Inquiry submissions

The Australian Water Association (AWA) contributed submissions to the National Water Initiative (NWI) reviews in 2017, 2020, and 2024, each articulating the need for comprehensive national water reform in Australia. Each submission has highlighted evolving challenges within the water sector.

The 2017 submission acknowledged the progress made through previous water reforms but expressed concern about backsliding against commitments in the previous review. It recommended rural and urban water management reforms and proposed the establishment of a national water authority to implement a national water plan to regulate water trading and manage water security.

The 2020 submission emphasised the challenges posed by recent bushfires, droughts, and the COVID-19 pandemic, outlining six key reform themes: urban water management, rural water issues, groundwater management, community engagement, research and development, and a revitalised national reform agenda. The 2020 submission particularly emphasised the importance of integration of bottom-up and community-based adaptation, including input from Aboriginal and Torres Strait Islander communities, into water governance arrangements. Additionally, it highlighted the need for increased investment in research and development to address emerging challenges like climate change and pandemics.

In AWA's most recent [2024 submission](#), AWA highlighted the connections between water sector reform and broader national objectives related to climate adaptation and resilience, required to align with Australia's commitments under the UN Sustainable Development Goals (SDGs) and the Conference of the Parties (COP) agreements. The submission articulated three priority areas for policy reform:

1. Improved National Level Articulation of Integrated Water Management (IWM)
2. Focus on Climate Variability
3. Independent Oversight and Advice

Throughout these submissions, AWA has emphasised the critical need for transparent monitoring, robust regulation, and compliance mechanisms, with a focus on community engagement and sustainable management practices. These elements are key to fulfilling Australia's international obligations and safeguarding the health and wellbeing of our people and environment.

AWA and our members are committed to engaging in further dialogue and collaboration on water policy reform. Without deep, coordinated, cross-sectoral reform, Australia risks failing to meet its national and international goals.

Response to proposed National Water Agreement objectives and outcomes

The AWA is in general agreement with the objectives outlined in the Discussion Paper. They align well with AWA's strategic priorities in driving a sustainable water future for our members and the water sector here in Australia.

In our view the seven objectives cover the key attributes needed for a National Water Agreement. Where there are areas of overlap between objectives, our comments and responses have been assigned to the objective that we think fits best, as detailed below.

We also want to make a few additional general comments:

- A National Water Agreement needs to consider water as part of a whole ecosystem and not as a single issue. Key interdependencies between water and other critical infrastructure and services must be included in the agreement to ensure that solutions meet broader social, environmental, and economic outcomes.
- The primary focus of the Agreement should be about equitable access to water for all Australians in urban, regional and remote communities that meets Australian Drinking Water Quality Guidelines.
- We welcome the intent to embrace Aboriginal and Torres Strait Islander knowledge and water management practices. This must be accompanied by sustainable long-term engagement with realistic timeframes to incorporate this knowledge and embed it in water policy and practices.
- AWA is currently engaging with our members across the country to identify how we can better support members and communities in remote and regional Australia. We would welcome the opportunity to partner with the Australian Government to deliver future programs.

Objective 1: Securing water for all uses

The safe and secure supply of sufficient water quality and quantity to sustain our natural environments, Culture, economic prosperity and communities.

AWA and our membership represent every aspect of the water industry – as the Australian Government moves towards implementation of this objective, we look forward to working in partnership to achieve the fine balance required to ensure securing water for all uses. For this objective to be achieved, along with the associated outcomes, diversity of supply (including dams, desalination, recycled water and water efficiency measures) that is ‘fit for purpose’ will be critical to ensuring water security for residential, industrial, commercial, environmental, and Cultural purposes.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Robust decision-making and continued investment and regulatory reform

The pace of water reform varies between states, with reform slow in some jurisdictions or inconsistently applied or even reversed in others.

Capital investment decisions in a climate variable context are inherently challenging. However, in this context, there is a need for courageous leadership and funding to support investment in what may be unpopular critical infrastructure projects with long implementation timelines to ensure water security in variable climate contexts for the longer term.

Balancing water availability, access and use with affordability while also achieving goals such as net-zero carbon emissions, which may require upfront capital investment, will be challenging and trade-offs will need to be made. The production cost of manufactured water such as desalinated and recycled water which is energy intensive is generally higher than water sourced from dams or rivers, for example. A more supportive regulatory environment will be required to ensure long term investment decisions can be made without adversely impacting customers.

Regional and remote communities

The lack of adequate service delivery, particularly of safe drinking water in regional and remote communities, is having ongoing significant health impacts. To ensure water security for these communities, a nation-wide coordinated approach is required.

AWA and our members have recognised the need to do more in regional and remote communities to address some of the challenges associated with poor access to safe drinking water and sanitation services. As mentioned above, we are now working to identify where the gaps are in servicing these communities and to better understand how our members can support these communities and each other through technical, social and cultural solutions which can build capability and capacity in these regions. As the Australian Government moves towards implementation of this objective, we look forward to working in partnership to work towards achieving the most equitable outcomes for all.

Objective 2: Aboriginal and Torres Strait Islander Peoples' water interests and values
A water management framework, underpinned by national and international human rights principles, which recognises and protects Aboriginal and Torres Strait Islander Peoples' Cultural, spiritual, social, environmental and economic water interests and values.

AWA welcomes the continued focus on elevating Aboriginal and Torres Strait Islander Peoples' water interests and values within the Australian water reform environment. We are deeply committed to working with First Nations communities to build a sustainable water future for all and work together with our members to achieve impact in areas of Australia where equitable access to water remains a real concern.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Progress Aboriginal and Torres Strait Islander Water Security and Entitlements

Historical and current issues, including water rights, service provision and access to clean and safe drinking water for Aboriginal and Torres Strait Islander people and communities, must be addressed.

Water quality for several remote and Aboriginal and Torres Strait Islander communities is still well below acceptable standards. A lack of progress on Aboriginal and Torres Strait Islander water entitlements has been raised by AWA members, with recommendations for increased access to water entitlements for productive and Cultural use. Elevating the value of Cultural caring for Country in achieving outcomes for downstream urban communities through greater Aboriginal and Torres Strait Islander water management support and integration into approaches will be key to a successful outcome.

Intellectual property considerations

The NWA should also incorporate Aboriginal Cultural and IP issues which will be relevant when developing land and waterways policy and practices. A number of protocols have already been developed by the Australian Government and State Agencies which address how best this can be done. NSW Aboriginal Affairs have developed [their own guidelines](#) which could be adapted at a national level.

Objective 3: Climate resilient water management

Environmentally sustainable water planning and management that is interconnected, adaptive and responsive to climate change and other circumstances.

AWA's purpose is to inspire and drive a sustainable water future, and our ten-year aspiration is for 'Water to be recognised by all as essential to economic prosperity, health, the environment and Aboriginal and Torres Strait Islander connection to Country'. AWA's [Strategy'25](#) outlines our commitment to connecting our members expertise with need and opportunity to address climate impacts and improve liveability.

Climate change and water have no boundaries – AWA is committed to working with our members, the Australian Government, and our communities to contribute to coordinated approaches to climate resilient water management that recognise our connections and achieves collective impact.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Improved planning for climate variability and extremes

Longer, more frequent, and variable droughts, floods, and extreme weather events are the most significant challenges impacting water security and management. Climate change also threatens terrestrial and aquatic biodiversity. With increased climate variability, the challenges of managing finite water resources while coping with a rapid increase in population are growing. In this context, there must be a shift to longer planning timelines to ensure adequate water security for economic, environmental, social, and cultural purposes into the future.

To support management of these challenges in urban, rural, regional, and remote Australia, AWA recommends the following:

1. **Broadening the definition of impacts of climate variability outlined in the NWI:**
 - The NWI Renewal Advice 6.2 on Water Planning focuses on drought conditions. This needs to broaden to include floods, and other extreme weather events.
2. **Support for research and modelling:**
 - Allocate funds for research and modelling to develop comprehensive responses to climate variability, and consideration of population increase and its impact on water management.
3. **Consistency and minimum standards:**
 - Establish uniform minimum standards and guidelines across jurisdictions to enhance water security, resilience, and community expectations.
4. **Community engagement and partnerships:**
 - Promote engagement and partnerships within communities to clarify roles and foster effective leadership in addressing climate variability.
 - Emphasis on water as a cross-cutting issue requiring a comprehensive approach beyond the NWI, including Aboriginal and Torres Strait Islander water rights.

5. More water resilient communities:

- With increased drought, flood, and extreme weather event intensity resulting from climate change, and the implications of population increase, there is a need to increase and diversify our climate-independent water sources and decrease existing licensing for water extraction from aquifers and rivers.
- Australia's water, wastewater and stormwater management practices and infrastructure will need to be adaptive and more resilient to these extreme events so that the impacts on communities are managed and recovery times are quicker and less costly.

6. Focus on water quality:

- Emphasise management of water quality, especially during flooding, to mitigate environmental and health impacts.

7. Integration of energy and water impacts:

- For manufactured water and energy sources, there is a need to consider interrelated effects of energy and water impacts in reform agendas.

Additional comments on this objective

To ensure progress on this objective, the need to inspire and where necessary provide incentives for long-term planning for climate risks must be elevated. To properly address future climate risk, longer-term planning and investment decisions need to be made now to ensure timely upgrades and maintenance on critical infrastructure and to avoid 'passing the issue' onto the next generation to inherit. It is also crucial when making these planning decisions that we consider interdependencies with other critical infrastructure and supply chain partners to avoid duplication of efforts by individual water authorities – for example, if a water authority invests in back up power and an energy provider is doing same thing, this may result in unnecessary duplication. Adaptive approaches that share risk and cost of solutions must be developed.

If we are to adequately respond to the challenges of climate change, innovation and diversity of solutions must be supported – recycled water, desalination and water efficiency solutions must be utilised and effectively coordinated and managed.

Objective 4: Ensuring evidence-based decision making

The robust and coordinated use of science, data and Cultural knowledge underpins evidence-based decision-making in water management.

AWA commends an approach that centres science, data, and Cultural knowledge at the heart of decision-making. Moves to incorporate Aboriginal and Torres Strait Islander Peoples' perspectives into decision-making are key to designing sustainable, holistic approaches to water management.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Investment in innovation and capacity building

Investment in research, innovation, capacity building and information sharing has varied across jurisdictions, resulting in significant risks for water service delivery. The challenges include an aging workforce and skills shortage, aging infrastructure, and decision-making that is not informed or appropriate due to a lack of water expertise and knowledge within organisations and across sectors. Investment and focus to professionalise the workforce and promote water sector as an employment sector of choice is an important enabler of change. Activities contributing to this include:

- Increasing investment in decision support tools for collaboration and informed investment decisions.
- Encouraging piloting, testing and implementation of new technologies.
- Assessing capacity and skills gaps and developing a water sector road map to ensure long term human resources capacity.
- Implementing advanced hydrological models and real-time data monitoring systems to manage water resources adaptively and pre-emptively.

Progressive planning for population growth and water source alternatives

The rapid increase in population particularly in our major cities, and a reluctance by governments and communities to consider all options, including purified recycled water for drinking, continues to add pressure to managing finite water resources. Political will and a lack of consistent effort to improve water literacy around the safe use of purified recycled water means that when options for secure water sources for a growing population are discussed, dams, groundwater, desalination, and recycled water for non-drinking purposes are put forward as the leading options. In situations like this, decisions based on evidence rather than perceptions or political will must be prioritised.

Moving beyond consultation to long-term relationships

A long history of community consultation on water, with intangible results, has led to a significant lack of trust around water reform and new infrastructure projects, particularly for many remote, regional, and Aboriginal and Torres Strait Islander Communities. To effectively incorporate Aboriginal and Torres Strait Islander Peoples' Cultural knowledge into evidence-based decision making there needs to be long-term commitment to work together, learn together, and build relationships and trust. These relationships need to extend beyond

election cycles, and changes in policy. These cultural changes need to happen on the side of the Government institutions responsible for leading water reform in Australia – only through this cultural shift will this objective be achievable.

Data sharing and cross-sectoral decision making

Data sharing has also been a huge challenge for water sector and other critical infrastructure sectors. To enable data driven decision making it will be necessary to make this data more accessible for planning purposes among agencies, improving coordination, access, and transparency. To achieve national outcomes, cross-sectoral coordination, decision-making, and data sharing must be strengthened.

Objective 5: Transparent, strategic water infrastructure investment

Investment in major water infrastructure that is effective, strategic and transparent.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Increase utility capacity to keep pace and afford upgrades

The ability for utilities to manage and maintain their assets and services to meet compliance obligations while remaining financially viable is an ongoing challenge. Amongst AWA members, there are doubts about the sustainability of long-term pricing, with concerns about cost escalation, aging infrastructure, and an approaching 'asset maintenance cliff'. These concerns need to be prioritised and addressed to enable long-term strategic investment.

Embedding adaptation into capital investment decisions

The challenge for water utilities and other critical infrastructure providers is the increasing cost of maintenance and upgrades with ageing infrastructure, increasing population demand and climate-related impacts. Regulators and customers need to better understand the real cost of maintaining critical infrastructure in urban and regional contexts and the need to 'pay forward' to ensure that investment occurs now so that infrastructure and services are more resilient and can respond to increasing risks for the longer term. It will only cost more if we delay this investment. Shared adaptative solutions will help to reduce risks and costs and should be advocated through the NWA.

Urban and regional policy balance

"The urban water sector is many times larger than the rural water sector (30 times larger). This indicates its impact on productivity, the economy and the lives of people. Yet the current NWI is dominated by rural water issues and in national water policy urban water is the poor cousin of rural water. While there are links between the two sectors it is time for urban water to be accurately reflected in a new NWI to address the challenges we have identified." – WSAA September 2020.

In agreement with WSAA above, AWA recommends reforms that adequately balance urban and regional water sector policy development.

Objective 6: Sustained community trust

Sustained community trust and confidence in government, water agencies, water managers and users.

AWA members strongly support community engagement and education regarding water management. Transparent decision making and associated monitoring and evaluation are also recognised as key if community trust and support is to be maintained.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Creation of an Independent Governance Oversight and Advice Body

“The Australian Government has committed to establish a new National Water Commission to drive water reform and future-proof Australia’s water resources. The department will undertake initial scoping work to determine the commission’s roles and responsibilities as a first step in its establishment.” – [DCCEEW National Water Policy Page](#)

AWA fully supports the creation of a new ‘National Water Commission’, with bipartisan government support. There is currently a high need for an independent body to oversee and drive the national water reform process while providing advice and guidance on water matters.

The current model, where governance relies principally on state water ministers and the National Water Reform Committee which is made up of senior officials from Australian Government and all state and territory water agencies, is ineffective in progressing water reform. The lack of information or reports on meetings or discussions held by these stakeholders has contributed to concerns about the effectiveness and transparency of the current approach.

Progress on water reform and the development and implementation of jurisdictional action plans will need Australian Government leadership in providing improved funding, frameworks, and support to state governments. The National Water Grid Authority is a positive example of cooperation and coordination on water at a national level. The framework and associated administration manual developed by the authority provide clear and rigorous guidelines for investment in water infrastructure and the authority provides oversight and transparent reporting on the progress of the projects funded. A similar organisation with a broader scope that also funds and assesses technical, policy and planning, environment, behaviour change, and efficiency solutions could help guide, incentivise, and monitor progress across the full suite of water reforms.

It is also important to integrate any water sector reform in Australia with Australia’s UN SDG commitments, as well as with other national climate adaptation and resilience initiatives – water contributes to or is a key ingredient in sustainable and resilient energy production, economic growth, human and environmental health, and liveability.

To strengthen water sector governance in Australia, AWA recommends the following:

1. Independent oversight:

- An independent entity is required to oversee and report on water reform progress.
- Compliance requirements should include incentives and consequences to drive necessary action.
- This should be a permanent body with the ability to develop a deep contextual understanding of the water sector and capable of providing technical and regulatory advice and guidance on water management at a national level.

2. Innovation incentives and funding reform:

- Funding models for innovative, change making projects could provide incentives for the adoption of new technologies or approaches.
- Investment guidelines similar to those developed by the National Water Grid Authority would support transparent decision making and oversight of expenditure.

Building Trust with Aboriginal and Torres Strait Islander Communities

As outlined above in Objective 6, to achieve this objective and the associated outcomes, there needs to be a shift from consultation with Aboriginal and Torres Strait Islander communities to a focus on building long-term relationships, working together, and incorporating Cultural knowledge and approaches into water management. Sufficient time and resources need to be dedicated to establishing two-way relationships and to build trust for communities to work with state and federal governments.

Objective 7: The efficient use of water

Water management frameworks that facilitate the efficient use of water.

AWA supports objective seven – to achieve this it will be important to embed a comprehensive Integrated Water Management (IWM) approach and promote a multi-sectoral collaboration to address water scarcity, governance, and sustainability amid escalating climate change and demographic pressures.

To support achievement of this objective and the associated outcomes, AWA recommends the following:

Embedding an Integrated Water Management (IWM) approach with multi-sectoral collaboration.

There have been significant barriers to IWM in Australia. IWM is not widely understood outside the water sector, with the following areas needing to be addressed:

- Policy, planning and financial barriers to IWM, particularly for urban stormwater and flood management.
- The disconnect between urban growth planning and water planning, which is impacting on the affordability of servicing growing populations.
- Water resource accounting has regressed, with increased conflict among stakeholders and misunderstandings about water management principles. This has been attributed to complexity of water management and governance arrangements, changes in personnel and focus of responsible agencies, and the reliance on stakeholder collaboration and goodwill to apply IWM approaches.
- Water access entitlements and planning have been identified as obstacles to implementing water banking and managed aquifer recharge as tools for drought resilience.

This lack of clarity across decision-making levels highlights the critical need for greater awareness to drive action. Approaches to overcome these obstacles through embedding an IWM approach must be fast tracked.

As climate change and population growth continue to place pressure on assets and water supplies, IWM solutions will play a crucial role in achieving water security for communities, industries, and the environment.

For progress to take place, there is a need to broaden traditional IWM approaches beyond recycled water to include stormwater, groundwater, and environmental flows.

To unlock further progress in IWM in Australia, AWA recommends the following:

Strengthening governance and reducing legislative barriers/ developing consistency with regulation and practice

Fragmented governance responsibilities have led to monitoring and resourcing challenges. Legislative barriers have also restricted funding for IWM. To reduce challenges such as these, measures need to be developed to:

- a) Align regulations to increase collaboration and prevent conflicting siloed agendas (the lack of progress on implementation is strongly linked to governance).
- b) Create governance mechanisms to reduce conflict between state boundaries and surface and ground water catchments, increasing recognition of environmental water and the link between surface and groundwater.
- c) Make evident the crucial link of IWM impacts and benefits to climate change response and mitigation strategies, and water's essential role in adaptation.
- d) Establish clear and standardised reporting frameworks by requiring jurisdictions to transparently report commitments, re-commitments, and how they are meeting commitments.
- e) Further development and wide distribution of best practices: Guidelines for practitioners to ensure processes and outcomes are aligned across Australia.
- f) Strengthen resilience and value-based planning, with an emphasis on risk management and catchment-wide insurance.
- g) Consider international benchmarks and tracking strategies for IWM.

Enhanced Urban Water Planning and Management

Currently, urban water planning is not adequately coordinated, and often doesn't account for all factors. Raw source water protection, stormwater, and flood management are often spread across multiple agencies. These are critical challenges for urban water nationally. Urban water planning should expand into catchment level planning that considers nature-based solutions; blue-green infrastructure solutions; or even non-engineering solutions to enable alternative integrated options with legislative frameworks that foster outcomes to meet community and environmental needs.

Recycled Water

'Fit for purpose' applications of recycled water need to be considered as part of the efficient use of water, whether that be for potable or non-potable purposes.

Environmental Water Flows and Entitlements

There remains a lack of clear and nationally compatible characteristics for secure water access entitlements. Environmental flows are not seen as having been prioritised and challenges in securing water for the environment have been highlighted. There is a need to ensure a minimum volume of water to meet expectations for economic, environmental, social and cultural purposes.

Best Practice Principles – Recommendations

The discussion paper outlines 31 principles aligned to the seven objectives. AWA recommends a synthesis of these principles into a smaller set of overarching principles. Below are our initial proposals for discussion for this set:

1. **Integrated water resource management:** This principle encompasses catchment management, the integrated management of water and land, environmental water, and planning for water use across all sectors. It emphasises the importance of managing water resources in a holistic and sustainable manner.
2. **Community and stakeholder engagement:** Combining community engagement, water literacy, and culturally responsive infrastructure, this principle focuses on the importance of involving communities, particularly Aboriginal and Torres Strait Islander and regional remote communities, in water management decisions, ensuring that infrastructure and nature-based solutions are aligned with community and cultural values.
3. **Transparent and trustworthy governance:** This principle integrates transparent investment, communication, trust in water management, and compliance. It highlights the need for openness, accountability, and adherence to regulations and ethical standards in water management practices.
4. **Data-driven and knowledge-based management:** Integrated and shared cross-sector data and information, modelling, monitoring, evaluation and reporting, and improved access to water data, this principle advocates for decisions and strategies based on robust scientific data, continuous monitoring, and the latest research.
5. **Sustainable use and efficiency:** This includes water use efficiency and innovation, circularity, and demand management. It encourages optimising water usage through innovative technologies and practices, and developing sustainable solutions (infrastructure, nature-based, etc.) as core criteria.
6. **Economic instruments for water management:** Incorporating water pricing, water markets and trading, and investment principles, this principle focuses on using economic tools to promote efficient water use and investment in water infrastructure. Considering exceptions and alternative models for remote communities and regional areas where population size and water availability require alternative funding models that may include subsidies.
7. **Safe and equitable access to water:** Combining secure water access rights, water quality, and surface and groundwater management, it emphasises the importance of ensuring safe and equitable access to water for all users, including the protection and sustainable management of all water resources.
8. **Planning for diverse sectoral needs:** This principle recognises that there needs to be ‘fit for purpose’ approaches in cities and towns to water planning, addressing the differing needs of community in urban and regional contexts.
9. **Innovation in water management for climate resilience:** Managing water in a changing climate including water use efficiency. Leveraging innovation, this principle calls for continuous improvement, investment and adoption of new technologies (AI, robotics, automation, and remote operations) and methods in water management to increase effectiveness and adapt to changing conditions.
10. **Environmental flow management:** Integrating the management of interception activities with the overall strategy for environmental water management, this principle focuses on minimising the negative impacts on water resources from human activities and infrastructure development.

Recommended 2004 National Water Initiative components to include in the National Water Agreement

Since the inception of the NWI in 2004, AWA notes that positive progress has been made in the following areas, and concentration on these should be continued in the proposed NWA:

National framework, standards, and guidelines

The creation of a national framework, standards and guidelines and recognition of the need for cross border management of water through the NWI was a big step forward, though implementation has been slow.

- Early reforms in universal metering, cost reflective pricing, independent economic regulation, and Australian Government leadership from the former National Water Commission (NWC) were positive steps.
- Establishment of a national framework for water management, along with the implementation of statutory water plans in most regions, laid groundwork to progress a structured approach to water resource management.
- The NWI provided a good platform for a national conversation about water, emphasising the importance of fostering dialogue and discussions on water-related issues.

Water resource management

The NWI has resulted in actions that have led to improved understanding of water resources, tracking and accounting of use. The development of water allocations and market mechanisms to support water resource management has also been positive.

- There has been a growth in awareness of the importance of water management in Australia, leading to significant improvements and better cohesion. However, emerging challenges, especially related to population growth, climate change impacts, and environmental restoration, are growing.
- Functioning rural water markets, acknowledgment of environmental needs, and better-functioning urban water markets and trading mechanisms promoting flexibility in water allocation and distribution, have had positive outcomes.

Environmental water allocations and water efficiency and management

There has been progress on environmental water allocations and improvements in water efficiency and management in both rural and urban areas, but more work is needed to ensure these are prioritised.

- The NWI raised the bar and clarified expectations around water management. Key outcomes include clearer guidance for water allocation planning, recognition of the importance of community engagement, including with Aboriginal and Torres Strait Islander communities, and better acknowledgment of the value of water for the environment and ecosystem services/public benefit outcomes.
- Sustained focus on water efficiency, more sophisticated water modeling approaches, recognition of the importance of groundwater resources, and understanding the link between ground and surface water have been noted as achievements.

- The NWI has been credited with raising awareness of water management's importance, particularly in the context of potential water scarcity. However, despite progress, challenges remain in addressing a growing population, climate change impacts, and the need for environmental restoration.
- Adoption of uniform standards and efficient use of freshwater were highlighted as positive outcomes, indicating progress in establishing consistent and effective water management practices.

Engagement with Traditional Owners

There has been some demonstrable progress in this sphere, but more is required.

- There has been a stronger focus on Aboriginal and Torres Strait Islander communities and outcomes, emphasising the importance of recognising and addressing the specific water-related needs of Aboriginal and Torres Strait Islander communities.
- Water entitlements have been raised as important to progress.

Community engagement and education

Community engagement in planning and decision-making has improved, but there is still a need to increase transparency and water literacy to protect and extend gains.

- There has been an emphasis on customer-focused outcomes, indicating a shift towards recognising the importance of end-users in decision-making processes.
- Improved community education, communication, and engagement by water service providers with customers and stakeholders, along with a growing understanding of water resources and improved tracking and accounting of water use, have been achievements to be built upon in any future National Water Agreement.

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