

AUSTRALIAN WATER

ASSOCIATION

National Water Reform 2026 Inquiry

Australian Water Association (AWA) Submission

01 May 2026

Final Submission lodged online to: <https://www.pc.gov.au/inquiries-and-research/water-reform-2026/make-submission/> and sent to the mailbox of Phil

To the Productivity Commission,

AWA is pleased to provide our initial submission for the National Water Reform 2026 Inquiry to the Productivity Commission. AWA welcomes the opportunity to discuss this submission further.

Yours sincerely,

Chief Executive Officer
Australian Water Association

Contact

, Head of Strategic Partnerships and Advocacy at

Table of Contents

Key observations and recommendations	4
Introduction.....	6
Who we are.....	6
Our approach to the Inquiry	6
Part A – NWI Assessment.....	7
Background – our 2017, 2020 and 2024 submissions	7
Barriers and emerging risks.....	7
Part B – Secure, resilient and sustainable services	9
Overall Questions	9
Theme 1: Pricing and Economic Regulation	10
Trade-offs between policy objectives	10
Incentives and efficiency.....	12
Process and regulatory burden	13
Theme 2: Governance, Accountability and Coordination	15
Roles, responsibilities and accountability	15
System coordination	16
Theme 3: Regional, Remote and Equity Considerations.....	17
Financial sustainability and viability.....	17
Service equity	19
Alternative models for service provision	20
Theme 4: National Consistency and Intergovernmental Coordination.....	22
Conclusions	22
Bibliography	23
Appendix 1 – Overview of AWA submission to the 2017 National Water Initiative review	24
Appendix 2 – Overview of AWA submission to the 2020 National Water Initiative review	25
Appendix 3 – Overview of AWA submission to the 2024 National Water Initiative review	26

Key observations and recommendations

Australia's water reform has delivered important gains in optimising efficient water uses, water planning, and short-term affordability. Climate change, population growth, ageing infrastructure, rising service expectations and growing inequity, particularly for First Peoples and regional communities, are placing increasing pressure on arrangements that remain anchored to short-term political and regulatory cycles, economic rationalisation and fragmented accountability.

A consistent theme across this submission is the **systemic undervaluation of water**, which echoes the theme of the [National Policy Forum 2026](#) hosted by AWA – 'Governing Water as if its Many Values Mattered.' Current economic regulation and policy frameworks largely overlook water's environmental, cultural, social and intergenerational value. As a result, decisions systematically favour short-term price outcomes over long-term resilience, defer essential investment, and obscure the trade-offs being made between affordability, sustainability, service equity and future risk. These trade-offs are rarely explicit, leaving communities unclear about who bears costs, when they are incurred, and for what long-term benefit.

As such, AWA calls for a fundamental shift in how water reform is framed and implemented. Incremental adjustment to existing instruments will be insufficient. We present the following recommendations, which are further elaborated throughout our submission, for the Commission to consider as directions for reform.

- **Establish a transparent national framework** to explicitly negotiate trade-offs between the economic, environmental, social, cultural and intergenerational values of water, improving the legitimacy and durability of water management decisions.
- **Update water pricing and affordability guidance** through reviewing affordability specifically in the Australian context, for future use in pricing and regulatory determinations.
- **Strengthen long-term strategic planning** by examining the role of integrated, independent planning bodies that ensure future water security is considered at the outset of land use planning.
- **Ensure regulatory independence and capability** across all jurisdictions to maintain public trust, enable evidence-based decision-making and reduce system fragmentation.
- **Improve national water literacy** through coordinated action by governments, regulators, utilities and communities, clearly communicating the need for sustained investment to renew ageing infrastructure and manage future water risks.
- **Re-establish an independent National Water Commission** to provide clear system-wide accountability, monitor reform progress and address persistent ambiguity in roles and responsibilities across the water sector.
- **Embed integrated urban water management as standard practice**, recognising stormwater, recycled water, waterways and nature-based solutions as core components of Australia's urban water services system.

- **Address entrenched inequity in regional, rural and remote communities** through:
 - Blended funding models that are calibrated to local context and target high risk communities
 - Shifting policy focus from “lowest possible pricing” to “lowest sustainable pricing”.
- **Investment in regional workforce capability** to ensure local water utilities have the skills and operational capacity to safely deliver sustainable water services.
- **Guarantee minimum drinking water and wastewater service outcomes nationally** by implementing a regulatory and funding framework that ensures Australian drinking water guidelines (ADWG) are met in regional, remote and rural communities, accompanied with the necessary workforce and infrastructure to deliver these services.
- **Embed First Peoples self-determination mechanisms in water governance**, adopting consistent principles across jurisdictions and supporting pathways to legislated water entitlements, including lessons from the Northern Territory’s Aboriginal Water Reserve and the newly developed Murray Darling Basin Aboriginal Water Entitlements Program. [<https://www.dcceew.gov.au/water/policy/first-nations/aboriginal-water-entitlements-program>]

Introduction

Who we are

The Australian Water Association (AWA) welcomes the opportunity to make a submission to the Productivity Commission (Commission) in respect of the National Water Reform Inquiry 2026 (the Inquiry). AWA is Australia's largest peak body for the water sector - representing professionals and organisations including utilities, government agencies, engineering, urban design and planning, science, research, academia, energy, resources, manufacturing, mining and agriculture.

AWA aims to inspire and drive a sustainable water future where water is recognised by all as essential to economic prosperity, human health, environmental integrity and social wellbeing, and as fundamentally inseparable from Country for Australia's First Peoples. AWA acknowledges that First Peoples have managed water sustainably for tens of thousands of years through traditional custodianship, and that genuine recognition of the cultural and social values of water is critical to achieving equitable, resilient and enduring water outcomes for all Australians.

Our approach to the Inquiry

The timeframes associated with this inquiry have not been sufficient for AWA to conduct direct engagement with our full member base, limiting our ability to collect progress on the NWI for Part A, as such our Part A is limited in scope.

Instead, this submission is informed by member insights that were collected to develop AWA's 2030 Strategy, targeted consultation with key groups, and outputs from the AWA National Policy Forum 2026, where the 2026 National Water Reform was officially announced by the Hon. Minister Watt.

The forum was centred on "*Governing Water as if its Many Values Mattered*", exploring necessary reform to move beyond reactive, short-term policy frameworks by recognising the full intrinsic value of water; including the economic, environmental, social, cultural and intergenerational services water provides. Outputs from the AWA National Policy Forum 2026 relate directly to Part B, and recommendations for Part B make up the majority of this submission.

AWA intends to provide a further submission in July 2026, following additional consultation with members, to ensure the practical experience of stakeholders across the sector is reflected in AWA's response to the Commission. AWA could inquire on current progress made on the NWI, which is currently not explored in detail within this submission.

AWA notes some confusion across the sector regarding the intent, role and scope of this question, particularly given the continuing role of the National Water Initiative (NWI) alongside the National Water Agreement (NWA). If the NWI is to be superseded by the NWA, will the priority reform measures captured by the Commission be applied to the NWA? And if so, what will be the methods to ensure this occurs? This necessary context should be addressed in the interim update.

Part A – NWI Assessment

Background – our 2017, 2020 and 2024 submissions

AWA has provided submissions to the Commission's National Water Initiative reviews in 2017, 2020 and 2024, each reflecting the evolving risks facing Australia's water system while consistently reinforcing the need for sustained, coordinated national water reform. Across this period, Australia experienced major bushfires, prolonged droughts and the COVID-19 pandemic, yet the central conclusion of each submission remained unchanged: short-term responses are insufficient to address long-term water security, resilience and equity.

While acknowledging progress under the NWI, the 2024 submission highlighted that implementation has been uneven and increasingly misaligned with emerging pressures from climate change, population growth and infrastructure ageing. AWA recognised improvements in statutory water planning and the regulation of market mechanisms but identified Integrated Water Cycle Management (IWCM) and the need for renewed national leadership through an independent coordinating body as critical areas requiring further reform to deliver long-term system outcomes.

The 2020 submission, developed against the backdrop of drought, bushfires and the pandemic, reinforced the importance of adaptive, integrated and people-centred water governance. It identified six reform priorities spanning urban and rural water management, groundwater oversight, community and First Peoples engagement, research and development, and the revitalisation of a national reform agenda. Central to this submission was the need to embed bottom-up, place-based approaches and Traditional Custodian knowledge into water governance to improve legitimacy, trust and outcomes.

The 2017 submission acknowledged the substantial gains achieved through earlier national reforms but warned of growing risks of backsliding and fragmented implementation. It called for renewed focus on both urban and rural water reform and proposed the establishment of a national water authority to provide oversight of water planning, trading and long-term security.

Taken together, AWA's submissions have consistently advocated for transparent governance, strong and independent regulation, long-term planning, explicit recognition of the full value of water, and meaningful community and First Peoples participation. They emphasise a persistent need for clearer accountability, stronger national coordination and sustained investment to ensure Australia's water system remains secure, resilient and equitable in the face of mounting long-term pressures.

Further detail on AWA's positions is provided in Appendices 1, 2 and 3, which summarise the Association's submissions to the 2017, 2020 and 2024 inquiries respectively.

Barriers and emerging risks

Priority barriers and emerging risks to the progress of the NWI were incidentally observed from member insights that were collected to develop AWA's 2030 strategy, and were broadly categorised into three themes:

- 1) **The failure to recognise and operationalise the full value of water:** To stop the severe undervaluation of water and its many values require frameworks that move beyond cost-recovery pricing models toward values-based approaches. Without this shift, policy setting will continue to reinforce:
- **A pattern of severe underinvestment:** Member insights reiterated a looming investment gap in ageing infrastructure, increased demand from population and economic growth, and emerging industries (like data centres). Members highlighted that many projects are “shovel-ready” but lack the policy certainty and funding pathways needed to be addressed before they could proceed.
 - **Systemic inequality** – particularly experienced by First Peoples and regional communities. Despite some progress, there remain significant inequities in access to safe, reliable water in regional Australia. For Aboriginal and Torres Strait Islander communities, cultural water rights are not consistently recognised, access to water for economic and cultural use remains limited; and water quality and security challenges continue to impact health outcomes. Similarly in regional, rural and remote communities, service levels and regulatory oversight are inconsistent; infrastructure is often underfunded and less resilient; and exposure to climate risks is higher.

Recommendations for policy, governance and regulatory reform to address the undervaluation of water are further articulated within Part B.

2) **An underprepared sector:**

Member insights emphasise the ability of the sector to respond to these challenges is fundamentally constrained by people and capability. There are critical shortages in engineering, project delivery and operations; limited career pathways and workforce planning; insufficient investment in training and professional development; and fragmented data and knowledge-sharing systems. Members were clear in their feedback that without coordinated national investment in people and systems, reform will continue to stall.

3) **A warming climate:**

Climate change is intensifying existing pressures across all parts of the system, and progress towards net zero is not occurring fast enough. There is strong support amongst members for a unified, system-wide approach to climate resilience, including climate-resilient infrastructure and circular water solutions. Particularly, member insights noted the necessity of centring the energy-water nexus in policy and planning, and its role in the ongoing transition to net-zero. Water reform should explicitly recognise cross-sector system interdependencies, particularly for industries such as desalination, recycled water, and the rising demands of data centres on Australia’s water system.

Part B – Secure, resilient and sustainable services

Overall Questions

KEY MESSAGES FROM THE NATIONAL POLICY FORUM 2026

- Economic and affordability objectives are most visible in current arrangements; social, cultural, environmental, and intrinsic values are less visible.
- Short-term political, funding and pricing cycles limit consideration of long-term risks and value outcomes.
- Trade-offs between affordability, resilience, environmental and social outcomes are often implicit rather than transparent.
- Unclear accountability across the system undermines coordinated decision-making and public trust

Box 1 – Key messages from AWA National Policy Forum 2026 to inform **Overall questions**

Current water service arrangements perform reasonably well at delivering short-term affordability and operational efficiency but do so by systematically favouring economic values and near-term price outcomes over longer-term resilience, equity, environmental, and broader public value.

Participants of the AWA National Policy Forum 2026 repeatedly observed that pricing, regulatory and funding frameworks struggle to make trade-offs explicit, particularly where long-term asset renewal, climate resilience, environmental outcomes and intergenerational equity conflict with short-term affordability or political pressures. Fragmented governance, unclear roles and a lack of whole-of-system accountability further exacerbate these trade-offs, leaving no clear custodian for balancing competing objectives across time, sectors or jurisdictions.

These shortcomings are most acute in regional and remote communities, where market-based models demonstrably fail, service standards are lower, and affordability risks intersect with cultural, social and public health impacts, particularly for Aboriginal and Torres Strait Islander communities. Workshop participants warned that these misalignments will intensify as climate change, population growth and water-intensive industries place greater strain on infrastructure and funding models that remain anchored to short planning and pricing horizons.

Progress is occurring, particularly when considering the value of place-based approaches, clear accountability, and outcome-focused decision-making, and throughout Part B AWA recommends successful projects and policies for the Commission to consider. The dominant view was that without reform to embed long-term value, equity and cultural considerations explicitly into economic regulation and governance, current arrangements are poorly positioned to manage the pressures ahead.

Theme 1: Pricing and Economic Regulation

Trade-offs between policy objectives

KEY MESSAGES FROM THE NATIONAL POLICY FORUM 2026

- Pricing decisions are perceived to prioritise short-term affordability and efficiency over long-term resilience, asset renewal and environmental outcomes.
- Economic values dominate decision-making, with social, cultural and intrinsic values of water weakly reflected in pricing frameworks.
- Trade-offs between affordability and sustainability are often implicit rather than transparently articulated or communicated.
- Intergenerational equity is acknowledged but rarely operationalised in pricing decisions.

Box 2 – Key messages from the National Policy Forum 2026 to inform **Trade-offs between policy objectives**

Short term trade-offs between investment and affordability will lead to a water crisis.

Short pricing and regulatory cycles offer little incentive for longer term, integrated water resource planning, encouraging decisions that defer necessary investment to keep prices low today. This issue has been highlighted in recent regulatory pricing determinations for major Australian water utilities, which have included significant infrastructure renewals to meet population growth and increasing climate change pressures. For example, the final prices for the Sydney Water submission were lower than the 50% increase they sought over five years (IPART, 2025). This was also after extensive customer engagement (over 13,000 customers) regarding these price increases. Furthermore, regulatory pricing determinations do not exist in isolation, and when broader political priorities emphasise cost of living pressures, it is difficult for government agencies, regulatory bodies, and utilities to maintain momentum for the capital investment necessary to address population growth, climate change and ageing infrastructure. However, experience shows that deferring investment to moderate prices today risks higher costs, reduced service standards and environmental impacts in the future, shifting the burden to the next generation, rather than avoiding it.

AWA submits that the Commission should address a fundamental gap in Australia's water governance: the absence of consistent, transparent frameworks for resolving trade-offs between competing water values. Successive reviews of water reform have found that the binding constraint on progress is not a lack of science or hydrological data, but inadequate governance and decision-making processes. Every significant water policy decision involves balancing economic productivity, environmental protection, cultural values, social equity and fiscal constraint. Yet Australia has no consistent or transparent framework for making these choices explicit, evaluating alternatives, or enabling stakeholders to understand who bears costs, when, and for what benefit. Such assessments are usually made on a case-by-case basis, and the lack of an overarching framework leads to inconsistent outcomes that can risk detrimental effects upon water resources.

The consequences of this gap are visible across the sector. In the Northern Territory, a single large water license decision has been litigated from the Supreme Court to the High

Court (Worden et al., 2021), not because the decision was necessarily wrong, but because the governance framework did not provide a transparent and legitimate process for resolving the competing values at stake. Nationally, increasing legal challenge of water management decisions reflects communities seeking accountability through courts in the absence of adequate administrative processes.

AWA recommends the Commission examine the role of structured decision-support approaches, including multi-criteria decision analysis, robust decision-making and adaptation pathway planning, as tools to improve the quality and legitimacy of water management decisions. [The Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning](#) is an example policy from the NSW EPA (Dela-Cruz et al., 2017) that necessitates the consideration of waterway health outcomes during land-use planning. Equivalent policy instruments that explicitly capture the social, economic and cultural benefits of sustainable water services should be implemented across jurisdictions.

These approaches are well-tested internationally and would strengthen the governance infrastructure that underpins water security, improving transparency over planning and investment decisions, strengthening cross-jurisdictional collaboration; and explicitly recognising and managing trade-offs and any distributional impacts of processes.

Re-thinking affordability targets.

When pricing water, affordability targets of 3% can be used in Australia, representing a ratio between water bills and total household income. This target has been informed in part by internationally legislated target affordability ratios, such as Lithuania (2%), Northern Ireland and France (3%), Venezuela (4%), Chile and Kenya (5%) and Mongolia (6%) (Pamminger et al., 2019).

As the driest inhabited continent on Earth, and home to one of the largest distribution networks (DCCEEW, 2026), the suitability of international affordability indexes to inform Australian systems should be questioned. Australia needs to develop a site-specific affordability index that considers our different conditions for long term water services, specifically larger networks, lower population density, and low source water reservoirs.

Given the role of affordability within the national context, AWA recommends the Commission reviews affordability indexes to account for the many services water provides, encompassing environmental, social, and cultural values. These reviews should be included in pricing determinations that reflect the true value of water and avoid passing an ageing system to the next generation.

Affordability should not be considered a blanket barrier to prevent necessary capital investments to water delivery services. AWA highlights that there are methodologies to target customers who are most affected by the cost-of-living crisis, and these are already used across jurisdictions to provide targeted relief in the form of welfare programs, where necessary. AWA refers to an example from Yarra Valley Water, where a specific methodology was developed to measure and define affordability. Using this approach, the utility identified an 8% increase in water stress experienced by the lowest income group,

despite affordability improving at an aggregate level, and were able to communicate targeted relief strategies to this group (Pamminger et al., 2019).

Incentives and efficiency

KEY MESSAGES FROM THE NATIONAL POLICY FORUM 2026

- Short pricing and regulatory cycles continue to reinforce short-term investment decisions
- Risk aversion and prescriptive regulation discourage innovation and adaptive infrastructure investment.
- Current regulatory and market models are seen as poorly suited to regional and remote contexts, indicating structural inefficiency.

Box 3 – Key messages from the National Policy Forum 2026 to inform **Incentives and Efficiency**

Short pricing, regulatory and political cycles offer little incentive for long-term water resource planning.

Short pricing and regulatory cycles offer limited incentive for longer term, integrated water resource planning, often leading to reactive policy. Recurringly, large expenditures in capital infrastructure occur during or after a drought, without sufficient consideration of complementary operational or maintenance requirements, whether they be a skilled workforce, or ongoing funding. Drawing from examples of regional NSW, the implementation of drinking water infrastructure at Walgett was severely constrained, as the design was not fit-for-purpose, demonstrating the risk of capital infrastructure not being correctly designed for the regional context it was aimed for. In South-East Queensland, stormwater harvesting and water efficiency measures were implemented during the Millennium drought, including mandatory rainwater tanks, water efficient fittings and dual reticulation schemes which were effective in building water security resilience. However, many of these initiatives were subsequently abandoned due to cost considerations, changes in political priorities or unclear long term asset stewardship, leaving valuable infrastructure underutilised or degraded. In addition, customer maintenance of these water efficiency measures were often poorly maintained resulting in sub-optimal use (Moglia et al., 2014). As climate change increases the likelihood of future droughts, this history highlights the risks of failing to embed enduring planning, funding and governance arrangements that can sustain resilient investments over decades, rather than electoral or regulatory cycles.

AWA emphasises the need for enduring, integrated and strategic planning frameworks to guide the delivery of sustainable water services under increasingly variable climate conditions, including more frequent and intense droughts and floods. Such an approach would reduce the reliance on reactive, crisis-driven investment cycles that often result in sub-optimal or stranded infrastructure. It also highlights the importance of funding regulatory models that actively incentivise innovation, enabling the development and scaling of new technologies, decision-support tools, and pilot initiatives. These measures can support more adaptive, efficient and resilient water systems over the long term.

Water efficiency considerations

Water efficiency should be treated as a core, long-term component of water system planning rather than a reactive or secondary measure, with evidence showing it can deliver significant, cost-effective savings comparable to major supply infrastructure over time. However, current policy and regulatory settings tend to undervalue demand management by prioritising capital investment, creating misaligned incentives that favour supply augmentation despite its long-term cost impacts on customers. This often results in a “two-speed” approach: low prioritisation during wetter periods followed by reactive, less efficient interventions during drought (lumpy investment).

Progress has been made through targeted programs, innovation and community initiatives, but these efforts remain fragmented and insufficiently scaled, with inconsistent measurement, reporting and funding limiting their effectiveness. Embedding water efficiency into national frameworks through improved data transparency, sustained investment, and parity with supply-side options would support affordability, defer costly infrastructure, strengthen drought preparedness and build community trust, particularly if implemented consistently across both wet and dry periods.

Process and regulatory burden

KEY MESSAGES FROM THE NATIONAL POLICY FORUM 2026

- Planning and regulatory processes are seen as compliance-driven rather than outcome-focused.
- Coordinate governance can prevent the risk of delayed decision-making and risk aversion.

Box 4 – Key messages from the National Policy Forum 2026 to inform **Process and Regulatory burden**

Sufficient regulatory independence is necessary across all jurisdictions.

AWA submits that the Commission should recognise the importance of regulatory independence and adequate resourcing for water regulators, particularly in smaller jurisdictions. The Northern Territory's experience illustrates how under-resourced regulation erodes public trust, not necessarily through corruption, but through inconsistency, opacity and delay. The independent review of 64 license decisions found systemic capability gaps rather than malfeasance, but the perception of “favoured recipients” persisted until structural independence was established through the appointment of an independent Controller of Water Resources.

This has implications nationally. Many water management decisions outside the major urban utility context are made by regulators with limited resources and without structural independence from the departments that also promote development. The Commission should examine whether current institutional arrangements provide sufficient regulatory independence across all jurisdictions.

Can First Peoples be meaningfully engaged on regulatory timeframes?

AWA recommends that the Commission address the inadequacy of using environmental flow provisions as a proxy for cultural water values. The Northern Territory's experience demonstrates both the problem and emerging solutions: water allocation plans now incorporate cultural significance assessments, Traditional Owners are involved in describing water features through First Peoples knowledge systems, and these processes are beginning to bridge "the divide between Traditional knowledge and contemporary natural science."

However, these processes are resource-intensive and operate on different timeframes to statutory decision-making. As the NT experience shows, while our laws impose statutory time limits and obligations to make decisions, our Traditional custodians are not bound by these same time constraints. The Commission should consider whether current regulatory timeframes for water allocation planning are adequate to support meaningful cultural value integration, or whether they systematically disadvantage First Peoples' participation.

Coordinated efforts between government, regulators, and utilities is required to improve water literacy.

AWA emphasises that significant investments in infrastructure are necessary to deliver secure and reliable water services. Educating consumers on the context of these investments will be critical in achieving the support for necessary regulatory approaches. The Victorian PREMO pricing framework is an approach which increases transparency between regulators, businesses and customers by elevating customers to the core of pricing submissions. This customer-focused, outcomes-driven approach has several policy levers for recognizing the full value of water; and provides a place for public discourse between businesses and customers to explain why essential pricing increases may be necessary.

However, the Commission should instrument further support from state and federal governments to communicate the true value of water to consumers, sharing the entire burden which currently falls upon utilities and regulators. Improved water literacy will contextualise the necessary expenditure to upgrade ageing assets and ensure water security for our growing population.

A coordinated approach between government, utilities (including LWU's) and the community is necessary to ensure adequate and ongoing drought-preparedness, rather than waiting for drought to trigger emergency investment which invariably is more costly and less effective. Drawing from the Victorian example, the state government has released intent statements for water businesses (such as the 2016 [Water for Victoria](#) report) to encourage a broader view of the value of water, however this is just a starting point. The Commission can elevate water literacy as a reform priority by recommending coordinated action to improve public understanding, including collaboration with schools, communities and the media to deliver a unified national approach.

Theme 2: Governance, Accountability and Coordination

Roles, responsibilities and accountability

KEY MESSAGES FROM THE NATIONAL POLICY FORUM 2026

- There is a persistent lack of clarity on roles and responsibilities across governments, regulators and service providers.
- No clear accountability for whole-of-system water outcomes.
- Fragmented accountability undermines community trust and confidence in decision-making.
- Engagement with First Peoples is commonly consultation-based rather than partnership-based.

Box 5 – Key messages from the National Policy Forum 2026 to inform *Roles, Responsibilities and Accountability*

Fractured governance and accountability arrangements critically impede policy implementation and erode community trust in decision making.

A recurring theme of the National Policy Forum 2026 was the absence of clear accountability for the delivery of the environmental, social and cultural outcomes in water management. The lack of accountability is a barrier to implementing strategic policy and projects which often have broader distributional benefits across the community, including social amenity projects such as greenspaces, blue-green corridors, improved waterway health, improved river management, or recycled water use. Forum attendees reiterated that successful policy frameworks need **sensible targets and outcomes which are quantifiable and deliverable, with clear accountabilities, roles and timelines that are enforced across the entirety of implementation. Successful policy and regulatory approaches need to be less prescriptive, instead allowing for community-driven, place-based processes to evolve.** AWA submits a range of projects and policies for the Commission's consideration. These examples were identified during the AWA National Policy Forum 2026 as successful articulation of coordinated accountability, goals, and timelines:

- **[Victorian Floodplain Strategy](#)**: The strategy enforced **clear accountability, goals, and a timeline** to deliver project outcomes.
- **[Catchment Offsetting in Great Barrier Reef](#)**: A regulatory mechanism that uses a **coordinated approach to land and waterway management** to deliver **holistic benefits** to the waterways.
- **[Bega River Water Sharing Plan](#)**: Adjustments to water sharing plans during a time of water shortage **were community driven, place-based, and outcomes focused.**
- **[Great Barrier Reef - Urban stewardship scorecard and agriculture regulation](#)**: **Used clear timelines** and allocated **accountability** to achieve **long term** targets.

Re-establishment of an Independent Oversight and Advice Body.

The role of the Commonwealth should be to drive unified national policy settings, ensure robust monitoring and accountability, and provide sufficient, stable funding to enable states and territories to deliver reforms, fulfill statutory requirements, and adopt innovative solutions at scale. A dedicated national body is required to provide enduring oversight, hold governments to account, report transparently on progress, and maintain consistency and connectivity between jurisdictions, ensuring reform commitments are upheld, backsliding is prevented, and long-term obligations, including those related to climate change and enduring sustainable services, are met. The value of an independent oversight and advice body is its ability to sustain reform momentum beyond electoral cycles, provide trusted and expert guidance, and embed long-term accountability, transparency and national consistency within Australia's water governance framework.

Existing performance, reporting and monitoring arrangements are fragmented; and Australian states need a long-term funding stream to conduct the necessary monitoring and reporting to get the work done. Over-reliance on the sector to self-report or provide written submissions without direction or support from the federal government will lead to submission fatigue within the sector.

System coordination

KEY MESSAGES FROM THE NATIONAL POLICY FORUM 2026

- Governance is poorly integrated with land-use planning, climate policy, energy and health.
- Stormwater, wastewater and water supply are often managed in silos, missing opportunities for co-benefits
- Effective coordination improves outcomes where place-based and outcome-driven models are used.

Box 6 – Key messages from the National Policy Forum 2026 to inform *System Coordination*

Barriers to integrated water cycle management (IWCM).

Current governance arrangements do not explicitly or transparently allocate non-economic services (such as environmental, social, or cultural values of water) to the remit of a specific authority. Without specific policy and implementation frameworks to deliver these benefits, there is a significant risk of these services not being delivered, which systematically entrenches inequity between generations, as the legacy of a degraded catchment can be passed on. Furthermore, under-recognition and delivery of water for cultural purposes continues to contribute to a legacy of inequality experienced by First Peoples communities.

AWA recommends the consideration of the [Sydney Water's Western Sydney Aerotropolis](#) as a successful example of recognising the environmental values of water through policy to deliver Integrated Water Cycle Management (IWCM) outcomes across the catchment. Specifically, the NSW Government developed the [Performance criteria for protecting and](#)

[improving the blue grid in Wianamata-South Creek catchment](#) (Dela-Cruz et al., 2022), which specified a ‘tipping point’ metric, backed by research and consultation, to determine the absolute maximum mean annual runoff volume (MARV) which would not critically damage the receiving waterway of this development. This tipping point was a mechanism to push for water sensitive urban design (WSUD), including wetlands, stormwater basins, and passively irrigated street trees to reduce runoff and protect the health of the waterway as well as harvest stormwater.

IWCM has further co-benefits of urban cooling, and improved waterway health outcomes can improve biodiversity and honour First Peoples water management practices. This is an example of how policy instruments can directly improve environmental, cultural and social outcomes. By embedding these outcomes into policy, the sector can shift from its current state of heavily relying on ‘champions’ to achieve these outcomes.

The next phase of national water reform should therefore focus on integrating land and water planning, utilising principles of IWCM and WSUD as standard practice across Australian cities and towns. This requires recognising stormwater, recycled water, waterways and nature-based solutions as core elements of the urban water services system, supported by aligned policy, pricing, regulatory and planning frameworks.

AWA recommends that the Commission recognise that governance and regulatory settings must be place-based and adaptive. Australia’s water governance frameworks have been developed primarily around the needs of large urban utilities and the Murray-Darling Basin. The experience of jurisdictions like the Northern Territory demonstrates that effective water governance in regional, rural and remote contexts requires fundamentally different institutional design, not simply scaled-down versions of metropolitan frameworks.

The NT’s reform journey shows that meaningful governance improvement emerged not from top-down national prescription but from specific catalysts (the independent licence review, the removal of licensing exemptions) that were sensitive to local political, cultural and institutional context. National water reform frameworks should create space for this kind of jurisdictional innovation rather than imposing uniform regulatory architecture.

Theme 3: Regional, Remote and Equity Considerations

Financial sustainability and viability

KEY MESSAGES FROM NATIONAL POLICY FORUM 2026

- High per-customer costs, limited scale and workforce constraints challenge regional provider viability.
- Market-based regulatory models fail to reflect regional cost structures.
- Funding arrangements inadequately compensate for structural cost disadvantages.

Box 7 – Key messages from the National Policy Forum 2026 to inform **Financial sustainability and viability**

Current funding and governance arrangements do not support regional communities.

As the Commission is aware, regional and remote communities are subject to unique considerations: smaller scales, low customer density, variable source water quality, constrained local workforces and exposure to climate extremes, which combine to create inherently higher and more volatile costs. Existing funding, pricing and regulatory frameworks remain largely benchmarked to metropolitan assumptions of scale and stability. As a result, regional providers are often judged against efficiency metrics they cannot realistically meet, discouraging proactive investment and reinforcing reactive, crisis-driven responses. The Commission should consider whether the current NWI framework adequately accounts for the dual role of water in remote and regional communities, as both an essential service requiring affordable access, and as an economic development asset requiring efficient allocation. These two objectives create genuine tensions that cannot be resolved through pricing reform alone.

Cost-recovery pricing models designed for urban utilities with large customer bases are not transferable to contexts where communities of a few hundred people depend on bore water, where the utility (if one exists at all) operates with government subsidy, and where water resources simultaneously underpin economic development aspirations, environmental values and cultural obligations.

AWA recommends the Commission to consider blended funding models that combine user charges, government grants and community service obligations, calibrated to local context. For some communities, a permanent program for water and wastewater services will be necessary. The framing should shift from “lowest possible pricing” to “lowest sustainable pricing,” acknowledging that sustained underinvestment in remote water infrastructure creates costs that are deferred, not avoided.

AWA further recommends state and federal funding programs are modified to prioritise funds towards highest risks communities and utilities with demonstrated least capacity to pay, requiring a holistic, systems thinking approach. An outcomes-based submission process could remove the need for costly business cases and achieve improvements on the ground quicker. Furthermore, government funding should include both capital and operational expenditure to ensure an uplift in skills and capability in regional areas.

The necessity of a skilled, regional workforce.

Regional and remote communities continue to face significant challenges in attracting, retaining and developing a skilled water workforce, particularly in small utilities with limited revenue bases. Many local government water utilities lack sufficient funding to adequately fund operations and maintenance or employ staff with the expertise required to safely operate water and wastewater systems.

Current funding settings are heavily weighted toward capital investment, creating the risk of delivering new infrastructure without the operational capability to run or maintain it. In several

cases, assets are over-designed or not fit for local conditions and skill levels, resulting in under-utilisation, shortened asset life, poor performance and elevated public health and environmental risks through non-compliant operations.

AWA recommends expanding state and federal funding programs, such as the National Water Infrastructure Fund, to explicitly include support for operations and maintenance, workforce capacity and capability development. Funding should establish a hub of regional expert operators, engineers and technicians, drawing on both public and private sector expertise to support multiple communities in a cost-effective manner. In parallel, nationally consistent guidelines and funding support for operator training, mentoring and skills development should be introduced to ensure infrastructure investments are matched with sustainable operational capability.

Service equity

KEY MESSAGES FROM NATIONAL POLICY FORUM 2026

- Lower service standards and reliability in regional and remote communities have real and lasting social and economic consequences.
- Equity objectives, including Closing the Gap, are often traded-off against efficiency.
- Current CSO arrangements are not perceived as sufficient or transparent.

Box 8 – Key messages from the National Policy Forum 2026 to inform **Service Equity**

Regional and remote communities experience systematic inequities.

Outcomes of the AWA National Policy Forum 2026 overwhelmingly reiterate that the impacts of drought and substandard water quality upon regional and remote communities were deeply consequential, not only for public health but for social well-being. Between 2006 to 2016, one more month of extreme drought in the previous 12 months was strongly associated with a 32% increase in monthly suicide rates in the Murray Darling Basin (Berry et al., 2018). This alarming statistic echoes workshop accounts of drought-driven stress, mental health deterioration, and community fraying.

It is common for regional communities to consistently experience lower quality drinking water, and AWA submits to the Commission the case of Narrabri's drinking water containing higher levels of PFAS in groundwater supply, and a consequent Parliamentary inquiry into PFAS Contamination in Waterways and Drinking Water Supplies throughout New South Wales (Parliament of NSW, 2024). Whilst state intervention was eventually implemented, the Commission should consider recommending national policy reform to systematically address these issues before their impact is felt by regional communities.

AWA recommends a funding and regulatory framework to ensure Australian Drinking Water Guidelines are met in regional, remote and rural communities. This encompasses the necessary investment in infrastructure and skills to deliver these services. Furthermore, AWA calls on the Commission to recommend further investigations by the NHMRC into the

long-term health impacts of consuming water with excessive hardness and salinity, as these conditions recurringly affect many regional communities.

The impact of poor water quality and a lack of community trust results in adverse broader health and wellbeing outcomes, including consumer behaviour of choosing bottled water and soft drinks over tap water. The Commission needs to address this issue and evaluate the resulting implications for affordability and public health in these communities. Investing in water quality improvements may far outweigh the costs of both physical and mental health related impacts that result from poor water quality and consumer distrust. This effect was quantified in a 2023 Swedish study, that found a reduction in the annual probability of infection by improving the treatment of drinking water, exceeding US EPA standards and improving the aesthetic water quality also (Sköld et al., 2022).

Alternative models for service provision

KEY WORKSHOP MESSAGES TO INFORM RESPONSES

- Place-based, collaborative and community-driven models show promise.
- Aggregation and regionalisation can improve efficiency but risk eroding local responsiveness.
- Support for models that strengthen First People's self-determination in water services.

*Box 9 – Key messages from the National Policy Forum 2026 to inform **Alternative models for service provisions***

Community Service Obligations.

Informed by the recent Review of funding arrangements for Local Water Utilities (LWU) by the NSW's Productivity and Equity Commission (PEC), the PEC found that while LWUs are expected to operate as financially sustainable businesses, current funding arrangements do not adequately reflect the structural constraints councils face, nor do they provide sufficient clarity on long-term service expectations. Its recommendations called for significant changes to funding, alongside improvements to regulation and strategic planning, recognising that financial responsibility rests with local government but within an incomplete and fragmented policy architecture. AWA National Policy Forum 2026 participants echoed these findings, repeatedly identifying **unclear roles, short-term funding horizons and the absence of agreed minimum service standards** as key contributors to reactive decision-making and long-term risk.

AWA members highlight the work conducted by the [NSW PEC during its review of alternative funding for LWU's](#) as a significant effort to address the systemic water inequity experienced by regional communities. AWA suggests the Commission extends the methodology employed by the NSW PEC across jurisdictions, to find areas of synergy between states, and develop context appropriate solutions across Australia.

Self-determination mechanisms must be implemented across jurisdictions.

AWA emphasises that Australia has endorsed the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), and should embed a self-determination framework into legislation, governance, and policy. Victoria is the only jurisdiction with an explicit, self-determination approach through the [Self-determination reform framework \(SDRF\)](#), [Victoria Aboriginal Affairs Framework \(VAAF\)](#), and both the [Treaty Act 2025](#) and [Treaty Authority Act \(2022\)](#).

The SDRF requires public services to enable self-determination in alignment with VAAF. In alignment with these state initiatives, the Essential Services Commission (ESC) is in the process of incorporating a 'First Nations Self-Determination Framework' into regulatory processes (ESC, 2025). AWA recommends that the Commission prioritises that self-determination frameworks and principles should be replicated across jurisdictions and even adopted by the private sector. Progress would contribute significantly to Closing the Gap targets and have cross-sectoral impacts.

AWA submits that the Commission should examine the role of dedicated water allocation mechanisms for First Peoples, drawing on the Northern Territory's Aboriginal Water Reserve (AWR) as a working model. The AWR demonstrates that it is possible to move beyond consultation frameworks to legislated entitlement, reserving water specifically for Aboriginal economic development and self-determination.

While the AWR has attracted criticism from competing perspectives (that it "locks up" water, or alternatively that volumes are insufficient), its enduring bipartisan support and growing allocations (now exceeding 60,000 ML) suggest it represents pragmatic and durable policy. Other jurisdictions with lower existing allocation pressure should consider similar mechanisms before development forecloses the opportunity.

The Commission should also note that water allocation is inseparable from land rights in many parts of Australia. In the NT, where 40% of land is Aboriginal land and 90% of coastline is subject to Native Title, discourse on water management is "intertwined with the legal advancement of Aboriginal land and sea rights." National reform frameworks that treat water allocation in isolation from land tenure arrangements will be inadequate. AWA acknowledges the efforts of the Commonwealth to increase First Peoples ownerships of surface water entitlements in the [Murray Darling Basin through the Aboriginal Water Entitlements](#). However, AWA raises the potential the risk of increased administrative or bureaucratic burden upon Aboriginal and Torres Strait Islander communities, and highlights the importance of clear accountability and governance procedures to ensure progress on this project is not stalled.

Theme 4: National Consistency and Intergovernmental Coordination

KEY MESSAGES FROM NATIONAL POLICY FORUM 2026

- Jurisdictional fragmentation leads to inefficiencies and inconsistent outcomes.
- Absence of a strong national vision or coordinating body for water services.
- Support for nationally consistent objectives with local flexibility in delivery.

Box 10 – Key messages from the National Policy Forum 2026 to inform **National Consistency and Intergovernmental Coordination**

The Commission should consider what institutional arrangements are needed to maintain public confidence in the scientific evidence base for water management decisions, including the role of independent scientific review, open data, and structured engagement between government science agencies and communities with concerns about water management. Water management decisions depend on credible, independent scientific evidence, but practitioners report growing challenges to the legitimacy of government science agencies. This is compounded by well-resourced advocacy campaigns that are "more agile and provocative" than government communication functions.

As raised throughout our submission, AWA identifies value in the Commonwealth presenting national consistency for the following policy reform areas:

- 1) A national framework to reconcile trade-offs between the different values of water, including economic, environmental, social and cultural.
- 2) National campaigns to improve water literacy and contextualise necessary investment to water infrastructure to avoid a water crisis.
- 3) Application of Australian drinking water guidelines to regional, remote and rural communities, accompanied with a regulatory and funding framework to ensure the necessary workforce is available to drinking and wastewater services.
- 4) Nationalised priority of establishing self-determination frameworks for First Peoples across Australia's jurisdictions.

Conclusions

Australia's water system underpins economic prosperity, public health, environmental resilience and cultural wellbeing, yet it continues to be shaped by policy, pricing and governance settings that undervalue these long-term public benefits. As pressures from climate change, population growth and infrastructure ageing intensify, incremental reform will be insufficient to secure future outcomes.

AWA submits that renewed, coordinated national water reform is essential—one that correctly recognises the true value of water, supports long-term investment and resilience, and delivers equitable outcomes for all communities. Getting water reform right is not only critical to securing sustainable services today, but to safeguarding Australia's water future for generations to come.

Bibliography

Berry, H.L., Waite, T.D., Dear, K.B.G. et al. The case for systems thinking about climate change and mental health. *Nature Climate Change* 8, 282–290 (2018).

<https://doi.org/10.1038/s41558-018-0102-4>

DCCEEW (2025). *Next steps on the National Water Agreement*. Department of Climate Change, Energy, Environment and Water. Canberra. CC BY 4.0.

DEECA (2016). *Water for Victoria -Water Plan*. Department of Energy, Environment and Climate Action. Victoria.

Dela-Cruz J, Pik A & Wearne P 2017, *Risk-based framework for considering waterway health outcomes in strategic land-use planning decisions*, Office of Environment and Heritage and Environment Protection Authority, Sydney.

Dela-Cruz, J., Tippler, C., Stewart, M., Chirgwin, W., Dawson, G., Krogh, M., & Pritchard, T. (2022). *Performance criteria for protecting and improving the blue grid in the Wianamatta–South Creek catchment*. Department of Planning and Environment, NSW Government.

ESC (2025). *Essential Services Commission Regulatory Priorities (2025 – 26)*. Essential Services Commission. Victoria (Published 1/07/2025).

IPART (2025). *Final report on Sydney Water prices 2025 – 2030*. Independent Pricing and Regulatory Tribunal (IPART). NSW. (Published September, 2025).

Moglia M, Tjandraatmadja G, Delbridge N, Gulizia E, Sharma AK, Butler R, Gan K (2014) Survey of savings and conditions of rainwater tanks. Melbourne, Smart Water Fund and CSIRO, Australia.

Pamminger, F., Greenwood, P., Morandini, L., & Sinnott, R. (2019). *Driving innovation by measuring affordability*. *Water e-Journal*, 4, 1–9. <https://doi.org/10.21139/wej.2019.030>

Parliament of New South Wales (2024). *Select Committee on PFAS Contamination in Waterways and Drinking Water Supplies throughout New South Wales*. Published 25 September, 2024. Available at:

<https://www.parliament.nsw.gov.au/committees/listofcommittees/Pages/committee-details.aspx?pk=329#tab-resolution>

Sköld, N.-P., Bergion, V., Lindhe, A., Keucken, A., & Rosén, L. (2022). Risk-Based Evaluation of Improvements in Drinking Water Treatment Using Cost-Benefit Analysis. *Water*, 14(5), 782. <https://doi.org/10.3390/w14050782>

Worden, Kathryn (Kate) Jane and Australian Labor Party. (2021, November 15) Decision made on Singleton water extraction licence following independent review. Northern Territory Government, Retrieved 2026, May 1, from <https://hdl.handle.net/10070/904590>.

Appendix 1 – Overview of AWA submission to the 2017 National Water Initiative review

The 2017 submission highlighted the progress Australia had made through nationally coordinated water reforms since the 1994 National Competition Policy and under the National Water Initiative (NWI) and noted evidence of slow progress or backsliding against agreed NWI commitments since the National Water Commission's previous review in 2014. The AWA's recommendations included:

Rural water reform

- a. Moving towards a national water market for water that avoids the variants and inconsistencies of the current local markets that are driven by contrasting value drivers
- b. The prevention of unwarranted market interventions by the Commonwealth Environmental Water Holder
- c. Timely and transparent price registers and settlement processes
- d. Recognising water as a tangible asset
- e. The role of a national water authority as national water trading regulator

Urban water reform

- a. Efficient and effective service delivery
- b. Aligning institutions and regulatory frameworks to reduce costs, both in the management of regulation itself but also to encourage productivity and innovation in the sector
- c. Access to capital and private sector investment to service expanding populations, especially growth areas on the fringe of cities and in developing regional centres
- d. A customer focused sector, an engaged community through giving a greater voice to customers through customer choice in pricing and service delivery
- e. Enabling regional and remote communities to have access to safe, secure, reliable and healthy water

National water agency

AWA also recommended that a national water authority be established to implement and manage a national water plan approved by the Council of Australian Governments (COAG) to provide water security and sustainable water management.

Appendix 2 – Overview of AWA submission to the 2020 National Water Initiative review

The 2020 submission underscored that despite the cross-sectoral importance of water and significant progress after decades of water reforms, recent challenges including bushfires, droughts, and the COVID-19 pandemic had highlighted a critical need for sustained focus and reform.

The submission outlined six key themes for further reform, reflecting the insights of water professionals from across the water sector:

- a. **Urban water:** Highlighted the importance of comprehensive urban water management strategies, advocating for diversification of water supply sources, resilience-building measures, sustainability integration, collaborative partnerships, and consistent regulations to ensure equitable access and quality standards across all communities.
- b. **Rural water:** Indicated that efforts to implement real-time monitoring and measuring of water extraction in the Murray-Darling Basin had been sluggish and inconsistent, highlighting the need for transparent monitoring, regulation, compliance, and enforcement mechanisms.
- c. **Groundwater management:** Recommended that efforts to address groundwater management issues included the establishment of clearer accounting and monitoring systems for groundwater and surface water interactions, necessitating detailed frameworks for proper water volume tracking and regulation of return flows and transfers between sources.
- d. **Community engagement in water management and planning:** Outlined the need to focus on integrating bottom-up and community-based adaptation, including input from First Peoples, into enhanced water governance arrangements to foster sustainable management of water resources and bolster community confidence.
- e. **Research and development:** Recommended sustained investment in multi-disciplinary research and development across various facets of the water sector as crucial for fostering innovation, efficiency, and adaptive responses to emerging challenges like climate change and pandemics, while also supporting economic and public benefits.
- f. **National reform agenda:** Advocated for a revitalized National Water Initiative as essential to addressing new risks and opportunities in Australia's water sector, necessitating a renewed leadership role from the Australian Government and the establishment of a national reform agency to oversee implementation.

To enable these reform themes, the submission advocated for greater national collaboration, emphasising the necessity of effective leadership and coordination across government levels to ensure the success of future reforms.

Appendix 3 – Overview of AWA submission to the 2024 National Water Initiative review

The 2024 submission recognises that while the National Water Initiative has delivered important gains and remains a critical framework for national water reform, accelerating pressures from climate change, population growth, and increasing climate variability, including floods, droughts, and extreme weather, have exposed gaps in implementation and coordination. These challenges underscore the need to reinvigorate reform, strengthen national governance, and ensure the NWI remains fit for purpose in supporting Australia's long-term water security, resilience, and liveability.

1) Establishment of a National Framework

AWA highlights the creation of a **national framework, standards, and guidelines for water management** as a significant achievement of the NWI. In particular, the recognition of the need for **cross-border water management** marked an important step toward a more coordinated national approach. Early reforms under the NWI—including **universal metering, cost-reflective pricing, independent economic regulation**, and strong federal leadership through the former National Water Commission—are noted as key successes that laid the foundation for improved governance.

The establishment of **statutory water plans in most regions** has improved consistency and structure in water resource management, and the NWI has provided a valuable platform for a **national conversation about water**, helping to align jurisdictions around shared objectives and promote ongoing dialogue on water challenges.

2) Improvements in Integrated Water Management

AWA acknowledges that the NWI has significantly enhanced the **understanding, tracking, and accounting of water resources** across Australia. The development of **water allocation frameworks and market mechanisms** has supported more efficient and flexible management of scarce resources, particularly in rural areas. Functioning rural water markets, improved urban water trading mechanisms, and greater recognition of environmental water needs are cited as important advances.

Overall, the NWI has contributed to **greater awareness of water management issues**, leading to stronger cohesion across the sector. While pressures from population growth, climate change, and environmental restoration are intensifying, the foundational systems established under the NWI have positioned Australia better to respond to these challenges.

3) Environmental Water and Water Efficiency

Progress has been made in **environmental water allocations** and in improving **water efficiency and management** in both rural and urban contexts. AWA notes that the NWI has “raised the bar” by clarifying expectations and strengthening guidance for water allocation planning. The initiative has also reinforced the importance of **community engagement**, including recognition of Aboriginal and Torres Strait Islander peoples, and has improved acknowledgment of the **public and environmental value of water and ecosystem services**.

Achievements highlighted include sustained attention to water efficiency, more sophisticated water modelling, increased recognition of the importance of **groundwater**, and improved understanding of the connections between surface and groundwater systems. The adoption of more **uniform standards** and promotion of efficient freshwater use further demonstrate progress toward consistent and effective water management practices nationwide.

4) Community Engagement and Traditional Owner Recognition

AWA notes measurable improvements in **community engagement**, with a stronger customer-focused approach evident in planning and decision-making. Water service providers have improved communication and engagement with customers and stakeholders, alongside better public understanding of water resources and improved transparency in water use tracking and accounting.

There has also been **demonstrable progress in engagement with Traditional Owners**, including a stronger focus on First Peoples outcomes and recognition of the importance of addressing distinct water needs of Aboriginal and Torres Strait Islander peoples. While progress has been uneven, the increased attention to **First Peoples water entitlements** represents an important step forward under the NWI.