

AUSTRALIAN WATER

ASSOCIATION

8 May 2017

4500+

*individual
members across the
whole
water cycle*

National Water Reform Enquiry
Productivity Commission
GPO Box 1428
Canberra City ACT 2601

Re: Submission to the Inquiry into the reform of Australia's Water resources sector

600+

*corporate members
including utilities,
large water
users contractors,
consulting firms,
research
and suppliers.*

It is with pleasure that we make this submission to the "Inquiry into the reform of Australia's Water Resources Sector".

The Australian Water Association

The Australian Water Association is the national peak water organisation, delivering information, expertise and collaboration for sustainable water management.

Membership is broadly-based and multi-disciplinary, covering the entire water cycle. The Australian Water Association provides the platform for our water experts, practitioners and businesses to share information, grow expertise and collaborate effectively. Our membership includes professionals and practitioners working in utilities, science and research, energy and resources, manufacturing and agriculture.

100+

*water utilities
servicing 20+
million customers*

We operate across all Australian States and Territories through an active branch network as well as maintaining extensive international links, including with the International Water Association. The Australian Water Association's activities are centred around a comprehensive program of conferences, workshops, publications, industry programs, training courses, networking and B2B opportunities. The Australian Water Association's Annual Conference and Exhibition is Australia's largest water industry event.

50+

*years servicing the
water sector.*

Through our extensive range of technical seminars, courses and conferences, we also provide a forum for debate and best practice dissemination at a local, national and international level. The Australian Water Association is committed to building Australia's water capabilities to maintain its position as a world leader in water management.

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This submission represents the views of various members of the Association with respect to the “Inquiry into the reform of Australia’s Water Resources Sector”.

Our response is given in three parts including;

- This cover letter
- Attachment A – Responses to information sought by the Productivity Commission
- Attachment B – List of attached documents provided for further information.

Our key points include;

- The National Water Initiative has been a very successful and important initiative of the Governments of Australia.
- The current National Water Initiative though is not yet completed.
- The demise of the National Water Commission has left a Water leadership vacuum across Australia.
- The Australian Water Association calls on Commonwealth Government to re-establish a COAG-level committee, with a similar, or expanded, remit to previous water-focussed COAG committees, such as the NRMMC or SCEW, that can provide ministerial national and multi-jurisdictional leadership on water-related issues of national importance.
- A refreshed National Water Initiative is required. The current NWI was a bottom up approach to industry re-form. While this is still a valid approach, the association sees the need for a holistic framework to ensure long term water security for all Australians moving forward.
- A refreshed NWI needs to address;
 - Long term water security.
 - The leadership of the water sector.
 - Alignment of industry, innovation and research efforts.
 - Harmonisation of legislation, strategies and approaches to water.
 - Increased productivity through identification of best practise, innovation and asset management.

Detailed responses have been given to the information sought by the commission. The responses have been based on feedback from our members and are not formal policy of the Association.

The association can provide more detailed feedback on specific any issues if required. Should you require further information please contact myself using the contact details below.

Your Faithfully

David Nixon

Chair Water Management, Law & Policy Specialist Network
Australian Water Association

Section 3 – Australia’s water Policy reform to date**1. What have been the key benefits of the water sector reform to date?**

- The establishment of nationally agreed principles for water pricing, water resource management and water supply planning, have provided important guidance and a more commercial focus to water managers.
- The corporatisation of water supply businesses separate from other aspects of government (1994 reform), though there have been examples of recidivism – e.g. Wide Bay Water, Qld, MidCoast Water, NSW. A continued focus on the separation of water businesses should be maintained.
- Economic regulation has increased focus on cost efficiency of the state-owned water corporations and is driving improvements. There is a secondary benefit to this in improving focus on the outcomes for customers.
- National initiatives such as the MDBA are good but appear to lack teeth in the inconsistent application between states. There is little consistency between the states both in methods and their degree of independence from government. It would be useful to have standard guidelines for making economic evaluations set up under the NWI or the National Water Quality Management Strategy.
- Ability to compare performance to identify best practice across organisations. The national performance report provides good information on the performance of urban water utilities, though comparison remains difficult to achieve.
- There has been a significant improvement on water information including surface water, river flows and groundwater information. This information though has led to limited improvement in knowledge at this stage.
- The definition of the water market, separation of allocation and provision, establishment of water trading and water market-related activities.
- The establishment of the Murray Darling Basin Authority and water basin planning, although still a lot more to be done.
- Recognition of the importance of water for environment and social purposes.
- The reforms have turned many water utilities into self-sustaining organisations that view the community as customers instead of passive rate payers.

Section 4 – The Commissions Approach**2. What information sources should we judge the success of the program on?**

- Australian Water Association/ Deloitte, State of the Water Sector Report 2015, Sydney 2015
- Australian Water Association, Australian Water Consumer Outlook 2015.
- Australian Water Association/ ARUP, Australian Water Outlook, Sydney 2016
- Australian Water Association, Emerging Challenges and opportunities to secure our water future, Sydney May 2017
- Australian Water Association, Submission to the Independent Review of the water Efficiency Labelling and Standards (WELS) Scheme 2015
- Australian Water Association, Submission on draft national groundwater Strategic Framework 2015-2025

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Attachment A – Responses to information requested by Productivity Commission

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- Australian Water Association, Promoting investment in the Water Sector, 2015
- Australian Water Association, Alternative Models for Financing Water Infrastructure, 2016
- National Performance Reporting (BOM)
- National Water Commission 2014 Triennial Assessment
- Asian Development Bank - Asian Water Development Outlook 2016
- National Water Accounts – Australian Bureau of Meteorology
- Water in Australia - Australian Bureau of Meteorology 2014-15
- State of the Environment Report - Australian Government 2016
- Australian National Outlook – CSIRO 2015
- Queensland - Water for life - South East Queensland's Water Security Program - 2016-2046
- New South Wales – 2017 Metropolitan Water Plan - Water for a Liveable, Growing and Resilient Greater Sydney
- New South Wales – various Regional Water Resourcing Plans (2016 – 2017)
- Victoria – Water for Victoria 2016
- Western Australia – Water for Growth – Water Supply and Demand Outlook to 2050 – 2016
- Australian Capital Territory – Water Strategy - Striking the Balance - 2014-44
- Northern Territory - 'Our Water Future Discussion Paper: A Conversation with Territories' – 2015
- 2016 WSAA Climate Change Adaptation Guideline – Water Services Association of Australia.
- Water Utility Climate Alliance publications: <http://www.wucaonline.org/publications/index.html>
- Doing the important as well as the urgent: Reforming the urban water sector - WSAA 2015.
- Position statement on improving economic regulation - WSAA 2014.

3. What NWI reforms have stalled and what is the consequences of that failure.

- The disbanding of the National Water Commission was not supported by the industry and has had a negative impact.
- With the scrapping of the NWC, the water industry has lost leadership, both visible and behind the scenes. There is no central leadership within the Commonwealth Government, with responsibility for water across several portfolios.
- Leadership at state level is as divided in some states with water across several portfolios. This lack of leadership will result in the increase in the divide between states and a lack of focus of direction towards the NWI.
- With the scrapping of the NWC, no one has taken responsibility for the strategic thinking needed within the water industry. Water planning issues have a long timeframe. With the lack of knowledge as to how climate variability will affect our water cycle at a local level, it is more imperative than ever that long term strategic thinking around water issues continues. Failure to do so might result in costly remedies that could have been prevented with better knowledge and planning.
- There is no longer an effective assessment of progress by the States following the scrapping of NWC. The Productivity Commission report is attempting to do this, but on a "one-off" basis.
- Quote from final Triennial Review of NWC (p109)
 - "With the recent abolition of the COAG Standing Council on Environment and Water and the closure of the National Water Commission at the end of 2014, the Australian Government is substantially withdrawing from an interest in water reform outside of the Basin plan, or proposals for new storages including in northern Australia. A committee of senior officials is in the process of formation and, at its first meeting, agreed to a reduction in the previously agreed COAG work program for national water reform. In addition, the absence of incentives for jurisdictions to coordinate

their efforts and the lack of a national ministerial council are likely to hinder the progress of nationally significant reforms in the future...

- In the absence of the Commission's independent oversight and facilitation role and the coordinated national focus previously provided by COAG, there is a real risk of gradual backsliding on current progress, and a retreat from public accountability. Given the substantial investment in improvements undertaken to date, this would be regrettable."
- The consequences of not addressing the long term strategic water issues can be seen by the failures of our water supplies during the millennium drought and the inflated costs that were required to address the issues. The failures currently being experienced in the energy market are again a good example of the lack of long term strategic planning.

4. What do you feel is the unfinished business of the NWI?

- Implementation
 - The closure of the National Water Commissions has resulted in a lack of industry Leadership and the lack of effective driving of the outcomes of the NWI.
- Water Access Entitlement and Planning Framework
 - The development of water plans across the nation are not complete and have been undertaken to various standards.
 - The recognition of Indigenous water needs, has not been completed.
 - There remains a lack of understanding of the effect of climate change on water access entitlements.
 - Over allocation of and/or adjustment of overused systems remains a problem in some areas.
- Water Markets
 - Water registers are not readily accessible across the nation.
- Best Practise Water Pricing and Institutional Arrangements
 - Full cost recovery of water services remains incomplete.
 - Variances in the approach to environmental externalities remain across the country.
 - Benchmarking Efficient Performance reporting has failed to enable comparative benchmarking to occur across utilities.
 - Pricing regulation is not independent of government intervention in most states.
- Integrated Management of Environmental Water
 - Environmental water is being managed differently in each state.
- Water Resource Accounting
 - No comments.
- Urban Water Reform
 - Integrated Water Cycle Management practises are failing due to multiple responsibilities without a common framework.
 - There remains a lack of alignment of innovation and research activities between service providers and water utilities.
- Community Partnerships and Adjustment
 - There remains a lack of transparency over the reform process.
- Knowledge and Capacity Building
 - Knowledge gaps remain particularly in Water foresight and localised climate change effects.

Preliminary Framework

5. Feedback on their preliminary framework

- The proposed framework is very much a bottom up framework addressing what is perceived to be the immediate issues within the water reform space. This has been the approach since the initial COAG reforms. Other frameworks around the world might provide a more holistic framework, covering both the immediate issues and longer term strategic issues.
- Other frameworks worth reviewing include;
 - United Nations Water Security Framework.
 - European Union Water Framework .
 - Water Governance in OECD Countries - A Multi-Level Approach 2011.
- The proposed framework though, is generally sound, but consideration should be given to ensuring there is a regular, independent process of measuring compliance and progress, encouraged with incentives and sanctions.
- The independence of water catchment management authorities (which should have statutory responsibility) from water utilities which seek to access the water, should be ensured. There are some cities where instrumentalities perform both functions.

6. What are your top 5 areas for water reform and why?

- **Long term water security for all Australians**
 - The association has developed a discussion paper on what water security for all Australian's might look like (Attachment B).
 - Currently all planning is state based, non-bipartisan and tends to be short term.
 - There is a lack of intergovernmental mechanisms to make planning more effective.
 - Long term planning is normally restricted to simple issues and does not address more complicated issues.
 - Little understanding of the effects of climate changes has been addressed at localised levels.
 - The association calls on the commonwealth government to make a clear "National Statement on Water Security for Australia - 2030".
- **Water Leadership with the demise of the NWC**
 - The National Water Commission was the only agency addressing long term strategic and complicated issues. An example of this was the 90 reviews and reports in the "Waterlines" series, commissioned by the NWC on key water issues.
 - The Bureau of Meteorology and Productivity Commission are only addressing what could be considered operational water issues.
 - A gap exists to assist with the coordination of state efforts and to address long term strategic issues.
 - The association calls on Commonwealth Government to re-establish a COAG-level committee, with a similar, or expanded, remit to previous water-focussed COAG committees, such as the NRMMC or SCEW, that can provide ministerial national and multi-jurisdictional leadership on water-related issue of national importance.
- **Alignment of Industry, innovation and research efforts**

- There has been a major reduction in research funding for water since the end of the millennium drought.
- We need to encourage continued innovation in the water industry through better continuity of research funding. At present this is very inconsistent – one CRC (Water Sensitive Cities) to which the Commonwealth contributes, and funding to support Water Research Australia from a limited number of utilities.
- In Australia, we have numerous CRC's, research institutes and universities promoting an expertise in water management. We need to continue the process of alignment of this expertise with the needs of the managers and operators of water infrastructure.
- Consideration should be given to a long-term fund along the lines of the South African Water Research Commission which was supported by a levy from 1 July 2013, of ZAR4.86c per cubic meter (about half an Australian cent / kl) in respect of metered water supplied or made available from a government water source other than for irrigation.
- The association calls on The Commonwealth, though COAG, to establish a government / industry forum to coordinate water innovation and research across Australia.
- **Harmonisation of legislation, strategies and approaches to water**
 - States and agencies have little coordination and hence there is an increase in disparate approaches.
 - The state based approach discourages long term thinking, discourages undertaking water fore sighting, minimising strategic and innovative endeavours.
 - The association calls on the Commonwealth, though COAG, to develop an intergovernmental agreement on the harmonisation of water legislation, water strategies, environmental & economic regulation of water.
- **Increased productivity through Identification of operational best practise, innovation and asset management**
 - We have well developed practises in some areas of water management. The National Water Quality Management Strategy (NWQMS) Guidelines and the Australian Drinking Water Guidelines are two areas where national practises have assisted in the maturity of the industry.
 - It is though, recognised that current industry productivity is restricted due to the lack of maturity of our performance benchmarking and lack of standardised best practise in other areas.
 - The development of operational best practise, innovation and asset management standards can lead to improved benchmarking, increase economic performance and the transportability of skills and systems.
 - The association calls on the Commonwealth, though COAG, to institute the development of a second generation set of standards for operational best practise, innovation and asset management.

7. What are the key contemporary and future drivers of water reform

- The need for water management at national, state and regional level to adapt to the impacts of climate change is critical. E.g. the drying trend in the south west of WA is forecast to continue, requiring enhanced capabilities in identifying new water sources and water savings, water supply planning, community engagement, and understanding environmental and water resource impacts.

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- The need to foresight water security challenges and develop mechanisms to allocate water amongst competing users in an economically efficient manner.
- The need to heed the lessons of the Millennium Drought, by taking long term water security out of short term budget cycles.
- The need to forecast and plan for future water supply/ demand balance with expected extremes of climatic conditions (drought and flood).
- The need to address indigenous water rights.
- Population growth and urban sprawl leading to higher demand and increasing pollution
- Expanding demand for increasing agricultural productivity to supply into international markets.
- Expanding demand for water in creating liveable communities (in both urban and rural areas).
- Changes in managing water quality from new supply sources and technologies.
- Failing to integrate land management and water planning processes across the water cycle and urban planning, particularly with increased housing densities in inner urban areas, increased impermeable surfaces and only limited consideration of the principles of Water Sensitive Urban Design.
- Increasing need for aligning institutions and regulatory frameworks to maximise efficiency in regulatory approvals processes and compliance costs.
- Not developing alternative water sources to provide enhanced supply resilience.
- Failing to obtain long-term community engagement in tackling water security challenges.
- Addressing the unique water security challenges around our coastlines.

Section 5 – Water Resource Management

Property Rights

8. What further actions are needed to achieve clear and secure property rights?

- Ideally, a consistent national view is required and that needs to be enforced across the states. The NWI is a guideline and has no statutory basis for enforcement.
- There is a need to encourage consistent use of entitlement and allocation terminology across states' legislation.
- There is a need for consistency across state boundaries to manage costs related to transactions.
- All jurisdictions need legislation in place to have statutory underpinning of clear and secure property rights.
Many water resource plans still need to be completed, much of the focus to date has been on the MDB.
- There is still a lack of competition and not much implementation of environmental flows. There is an impression is that environmental water allocations are being ignored, particularly in the northern MDB.
- Further progress is required in some jurisdictions (WA) towards water resources legislative reform (underway for the past ten years to replace the *Rights in Water and Irrigation Act 1914* and five other related acts).
- There is some concern as to the ability to 'secure' property rights in a drying climate. Significant work needs to be undertaken to determine the effect of climate variability and its future effect on property rights.

9. What new water sources should be brought into a water entitlement process and why?

- There should be no exclusions with all water sources traded.
- We need to progressively move from always using potable water to meet all urban needs.
- Stormwater, reclaimed wastewater, including managed aquifer recharge need to be considered on a localised basis.
- Clear policy and regulatory frameworks are required to support water managers for the incorporation of these new water sources.
- The inclusion of these will result in a better balance between planning and market based mechanisms achieving efficiencies.
- We need to remove all service cost cross subsidies that are currently exist, to ensure appropriate market based water sources are utilised.
- We need to review the management of Irrigation tailwaters resulting from poor irrigation practises.

10. Are current approaches to water rights compliance and enforcement fit-for-purpose?

- In principle, where they are applied consistently they are fit for purpose, though concern has been raised that they are overly complex across some jurisdictions.
- Some jurisdictions are persisting with "use it or lose it" approaches which distort the market in fully allocated systems.

Water Planning

11. What are the key areas of water planning where further progress is required to achieve the objectives and outcomes of the NWI?

- Further urban water reform is required including separation from local government, performance management, integrated water cycle governance and third party access to market.
- Traditional models for delivering long-term infrastructure are already insufficient. They are a major subsidy for irrigators in some cases. As uncertainty regarding the future increases and consumer expectations change more rapidly this dilemma will increase. A new approach will be required not just streamlining processes.
- Transparency is required regarding the levels of service, determined through engagement with the community, which should be undertaken by water service providers, including the levels of security of supply and triggers for restrictions.
- We need to ensure the planning system covers the necessary water resources types e.g. water in mining and petroleum, stormwater, wastewater, excess drainage water.
- Better integration of water planning and land use planning was covered by the 1994 reforms but has been virtually ignored since the 2004 NWI.
- The lack of explicit consideration of climate change is a fundamental weakness and must be addressed within future reforms.
- Risks exist within rural water issues on the equity of allocation. The risk is that the highest demand and price is likely to be urban, pushing up prices for environmental flows and agriculture.
- All water planning undertakings needs to be outcome focussed as opposed to compliant driven.
- Further definition and standardisation of water ownership and access rights needs to be made. For example, who "owns" the water contained within stormwater systems.

12. Is there scope to streamline water planning processes to reduce unnecessary costs imposed on planners and participants?

- A national approach with common arrangements could provide considerable benefit. Plans developed by planners and participants at the local level (within the common arrangements) can then provide additional value to all parties.
- This approach could minimise planning duplication, with the framework at the higher level and local security issues at the lower level.
- There are opportunities for further incorporating social requirements and standardising consultation processes on allocation planning.
- It would be useful to have better integration between the planning system and user or managers of water resources, to avoid the potential for unnecessary overlap or conflict.
- The planning process must incorporate transparent stakeholder engagement that includes specific and robust consideration of the risks, such as the effects of drying climate.
- Additional effort needs to be made to improve the science and knowledge around climate variability, which can be shared to all.

13. Are processes for reviewing water plans sufficiently robust, transparent, open, and timely?

- A consistent approach to the development, consultation and delivery of plans would assist to the efficiency of water plans. Currently there is no consistency between states.
- The NWI should continue to encourage transparency in water planning and the delivery of such plans.
- With all the work in this area, little improvement has been witnessed. Expectations of a step change in the sophistication of planning remains elusive.
- The ongoing political involvement and influence on the planning process is detracting from any reforms. Delays to processes and political override is common. The planning process needs to be based on best available technical and social science.
- The development of best practise water plans, consultation guides and review standards could benefit the process.

14. Is there scope to improve how water plans deal with long-term shifts in climate affecting resource availability? Are there recent examples of leading practice?

- The water sector needs to embrace a cultural mindshift towards adaptive planning to better incorporate an uncertain future including due to the impacts of climate variability. WA has a systematic approach to this in its (still non-statutory) process. It is especially relevant to the drying south west of WA.
- Traditional models for delivering capital for long-term infrastructure are already insufficient.
- Whilst significant work has been undertaken on the effects of climate change at a macro level, very little of this work has been brought to catchment or regional level to assist with the planning process. Current predications are broad based and insufficient for effective regional planning.
- A review by ATSE in 2009 showed most non-urban water utilities had not taken any cognisance of the potential for global warming. Whilst it is recognised that substantial work has been undertaken since this period, we are concerned that the scientific data is not available for any work to be truly effective.
- This can be evidenced by the fact that the 2016 WSAA Climate Change Adaptation Guideline take a very broad view of CC adaptation: <https://www.wsaa.asn.au/publication/climate-change-adaptation>.
- Most the work to date is basic with WA providing some good example of leading practice.
- More work on scenario analysis and trigger points for shifts in investment is required.
- More work on understanding externalities is also required.
- Dealing with water security and using a common measure (with common method of calculation) should factor in climate variability and should be scenario tested to assess a security "score".
- We need to provide transparency in water resource management impact from climate change at a scale where real change and impact actually take place.
- Some good international guidelines exist at <http://www.wucaonline.org/publications/index.html>.

15. Are current water entitlement and planning frameworks conducive to investor confidence, facilitating investment in major new infrastructure (such as in northern Australia), while managing risks to the supply security of existing water users?

- The lack of a consistent approach across the country and ongoing political interference is eroding investor confidence.
- Investor confidence is high in well-regulated areas e.g. urban area, but low in other settings.
- Northern Victoria provides a very good example of how the framework adds value to all stakeholders.
- The developing Northern Australia has failed to inspire confidence due to the lack of connection between the political vision and the value of agriculture markets to fund the work.
- There are concerns regarding the ongoing commitment of The Commonwealth to climate risk, which is not seen to align with the risk profile of investors.
- Confidence can be increased by the improvement in management of social and consultation processes.
- Improved transparency, broader risk management and the maturing of legal frameworks will improve confidence.
- In many areas confidence has decreased due to the multiple approval agencies arrangements in various jurisdictions.

16. How can the interests and needs of Indigenous people be better accommodated and represented in water planning processes?

- A nationally agreed framework and principles for the recognition of indigenous values is important, particularly in jurisdictions, including WA, SA and QLD, that are seeking to improve water services to remote indigenous communities.
- We need to have cultural water requirements identified and incorporated in plans. We need to make provision for special purpose indigenous economic entitlements to assist with "closing the gap".
- Good examples of how this could work is detailed in the Water Plan for Victoria and the approach of New Zealand Regional Councils on dealing with the cultural water requirements of Maori people.
- A good example of alternative governance approaches can be seen with the Fitzroy River in Western Australia.
- We need to increase participation (not just identification of needs and interests) by indigenous communities in strategy, planning and delivery. Indigenous communities have a lot to offer the water sector in NRM roles such as catchment management authorities and other relevant organisations across Australia.
- Early nomination of indigenous interests, including the basis of those interests is important. This can ensure that local knowledge is gained and water planning occurs in a transparent and inclusive manner well in advance of major projects putting time pressure on community engagement.

17. What steps have been taken — or should be taken — to integrate water quality objectives into water planning arrangements?

- They should be integrated to ensure that there is explicit recognition that both the quantity and quality of water resources are important, and that the aim should be to provide fit-for-purpose water products.
- The water quality management framework needs to be a fundamental contributor to water planning - 'Right resource for right purpose'.
- All water uses do not require the same water quality objectives within the urban environment (e.g. drinking water versus watering parks/open space).
- More sophisticated planning, matching wastewater producers with potential users could reduce the demand for extraction and desalination.
- In WA, there is strong protection of water source catchments, both for surface water and groundwater. We are not aware of any effective governance on the quality of irrigation returns to rivers in Australia - this should be a priority, particularly as flows decline.
- In the urban context, they are already being and what is needed is policy and regulatory settings which enable more flexibility of sources. More work needs to be done on IWCM. Quantity, quality and reliability planning on hydrological cycle, not jurisdictional basis
- The Basin plan methodology are a good example of best practise.

Water Trading

18. To what extent has the NWI goal of open water trading markets been achieved?

- This is highly variable depending on the understanding of the water users and the maturity of the markets. In the Murray-Darling Basin good progress has been made, while in the ground water systems there is limited understanding. (even recognising the increased physical constraints compared with surface water)
- There is a need to recognise the connectivity between surface and groundwater systems.
- Water trading is only one tool in a water management toolbox and we are expecting a lot from it. We need to ask where does water trading enhance water management efforts and what other tools are required.
- Water resources legislative reform in WA is slowly progressing, but will improve the ability to trade water.

19. Are there worthwhile opportunities to expand trade to new regions and water resources?

- There are always opportunities to expand trading, but the question will be around value delivered by the additional water and the ability to fund or underwrite the trade.
- Opportunities need to be real without the need for third party cross subsidies.
- Options exists especially with groundwater systems and potentially markets in waste water, stormwater and excess drainage water.
- The ACT has stated that it is keen to start trading with NSW.

20. Are there restrictions on trading water that are unwarranted and should be removed or revised?

- The market should be open, while managing the risk of pricing out industries where their "values" are dissimilar.
- Limits on annual trade out of regions should be progressively removed to allow regions to adjust over time.
- A regular review and evaluation of the restrictions, is needed and ongoing reporting of this should occur.

21. Are there actions that governments should take to reduce costs and delays of trading water, including for inter-region and interstate trade?

- The water market is seen by some as a slow process, opportunities may exist to copy the ASX trading system as a minimum. The Waterfind approach from South Australian is an exception to this.
- We need to have more data and information more readily available to inform the market.
- We need to finalise and implement the proposed reforms to the water resource management legislation in WA.

- The investigation of block-chain technology might be appropriate to further develop the market without the need for an extensive regulatory framework

22. How can water market information be made more timely, reliable and accessible in a cost-effective way?

- BOM does a great job and several state agencies have allocation and trading databases. Some brokers have good up-to-date market and recent transaction information available online.
- The biggest issue is around the availability of information through an open information source, in a similar manner to the ASX.
- Many have called for a national web-based water 'stock exchange' where all transactions (and current pricing etc.) is available. The Waterfind system though currently provides this service to their clients.
- The benefits of a spatially based system to overlay availability and stressed systems needs to be considered. Catchments do not necessarily align with groundwater basins, even though there may be conjunctively between them.

Environmental Management

23. What are the guiding principles for 'best practice' management of environmental water? Are the institutional and governance arrangements for held environmental water working well?

- A consolidated national approach is required rather than the state by state approach. This would see consistent standards being set for the quality and quantity of environmental water. The current arrangements are not effective and there are examples of regulators pushing for uneconomically tight restrictions on discharges which could assist with environmental flows.
- A catchment by catchment approach implemented within an agreed national framework may address these issues. The management of environmental water though will remain a States/Territories responsibility.
- The objectives should not be "least cost" rather "best value". Environment often has far greater value than ecological health of waterways. The most obvious example of this is recreational value of water bodies. In the urban context, there are significant public health benefits of green open space particularly if in conjunction with water bodies (see research by CRC for Water Sensitive Cities).
- That the environment should not be prioritised last, when water resources are being allocated, such that the guiding principles are flexible enough to allocate water resources to end users including the environment in an equitable case-by-case manner. Best practice could mean allocating environmental water first, not trying to claw it back after over-allocation has occurred.
- Best practice is still an evolving science, but the more monitoring and assessment we do, the better.
- More recognition needs to be given to the value of planned environmental water. Held environmental water applies more at the margins.
- The environment should be classified as a user and in effect government is acting as an intergeneration Trustee. The New Zealand recognition of a river as a living being is an interesting development that has potential to be replicated in Australia.
- There does appear though to be backsliding happening in the Murray Darling Basin.
- In WA, the 'environmental water first' principle is applied to new resources, but the south-Western river flows have declined so much that theoretically adequate releases from older dams are no longer feasible.
- Conservation of water for the environment should be done in association with conservation of other aspects of natural resources (vegetation, fauna, significant geological formations etc.) as is provided for under the Natural Resources Management Act (South Australia).

24. What is the role for governments in promoting trade in environmental water, and acquiring environmental water at least cost to the community?

- Governments play an extremely important role, as it is probably fair to say that most water markets would prioritise environmental water last, in terms of end users, so governments should be there to provide the balance.
- We need to promote transparency in information and need, backed by robust science.

- We need to redress past poor decisions on environmental water provisions at least cost to the community and industry.
- Governments must pay if they have over-allocated water. Government role is central to achieving this common good objective

25. How can institutional arrangements be used to ensure agencies with natural resource management responsibilities (including environmental water managers) pursue least-cost approaches to achieving environmental and other public benefit objectives?

- It is unlikely that a national agency will ever be established to take regulatory responsibility across the Nation for these arrangements.
- There would be benefit in such an agency undertaking an independent annual audit for benefit cost achievements.
- If there is no single “regulator” then the state / territory regulators should all be aligned to a common framework of responsibilities and quality requirements.
- There are too many agencies with siloed accountabilities and this leads to multiple gaps and red tape.
- All regulatory options need to be subjected to full, transparent economic analysis where the environmental, social and financial aspects of each issue are monetised. Using financial analyses only usually results in a tragedy of the commons.
- As a minimum, have transparent review, evaluation and reporting requirements with "NRM industry" standards and guidelines.

26. Are the policies that affect the health of water systems sufficiently integrated?

- Most of the industry recognise that further integration is required.
- Policies widely varied across jurisdictions and there is insufficient integration of water planning with land use planning and management.
- Catchment management authorities and water authorities should be aligned to enable whole of water cycle outcomes to be better planned and delivered efficiently.
- Additionally, in most States there can be cross-jurisdictional competition amongst resource agencies, as well as amongst resource managers and development agencies in government.

Section 6 – Water Services**Rural Water Services****27. Has the NWI been successful in achieving its objectives with respect to rural water services?
If not, what actions are required to achieve these objectives?**

- Continued progress is required towards cost-reflective pricing in rural water services or at a minimum transparency about costs and any operating subsidies towards rural services.
- Services being provided to remote rural communities and especially remote indigenous communities need significant improvement.
- More effort needs to be put in the BoM benchmarking assessment for rural water providers, as is with the urban providers.
- The National Performance Reporting (NPR) for rural providers is worthwhile, but need to be made more efficient.

28. Are there any instances where similar rural water service providers should be subject to different regulatory treatments based on the nature of their ownership and/or jurisdiction of operation? If so, when and why are such different approaches warranted?

- Generally, consistency is required.
- Where operating subsidies are in place as a decision of government, there should be transparency around the amount and purpose of those subsidies.
- Appropriate risk based considerations should be used, including considering populations at risk, while having a basic underpinning standard.

29. What role should independent economic regulators play in the regulation of rural water services?

- Independent economic regulation can improve transparency about costs, efficiency in expenditure and cost-reflective pricing.
- After the experience of building desalination and advanced water treatment plants in the millennium drought, more careful attention needs to be given to the investment of capital in new infrastructure.
- Economic regulation can also improve incentives on water service providers to achieve cost efficiency, including through innovation (e.g. remote metering, monitoring and billing technologies for remote communities).
- Independence is required for economic regulators across all jurisdictions. The essential services commission in Victoria is a good example of this as is IPART in NSW in their areas of responsibility.
- Prices in WA are independently reviewed but prices are still set by the Government. It should be noted that the Water Services Association of Australia supports independent economic regulation as it provides more certainty to investors (WSAA 2015), “Doing the important as well as the urgent: Reforming the urban water sector”, and (2014 “Position statement on improving economic regulation”).
- There should be a consistent regulatory framework in place across all water services, both rural and urban.

- They can review and make comment about relevant matters so that, for example, the degrees of cross subsidisation (which there will be) are transparent.

30. How are the needs of rural water service providers (both bulk water and irrigation delivery) and preferences of users balanced in the setting of infrastructure charges? In what ways could these processes be improved?

- The costs of meeting dam safety standards (ANCOLD) has been shown to be disproportionately high relative to other types of public health and safety expenditure, contributing to higher infrastructure costs for rural users (see Economic Regulation Authority (2007) inquiry into Harvey Water bulk water prices).
- It is recognised that rural water users are subsidised and this needs to be reduced to achieve full cost recovery.

31. How effectively do infrastructure network owners engage with users (both current and prospective) to ensure infrastructure programs address current and future needs?

- Community engagement is required to agree the services standards expected by customers and communities, considering factors such as changes in climate, supply/demand balance, and community expectations on amenity levels and environmental quality.
- Some owners engage well with users and other owners could improve their performance.
- The perception of good engagement is hampered by individual user vs community good and prudent service delivery.

32. Is infrastructure charging sufficiently flexible to cope with changes to the number and composition of customers within networks? If not, how could infrastructure charges be improved? What role have played in this?

- Additional flexibility could add value but also complexity. The systems are not set up to have too broad a set of classifications but there should be a process to reflect the changing nature of our cities and urban footprint.
- We need to consider how this is dealt with and by whom, for example developers charges paid to Melbourne Water where developers forego local cost of WSUD installations.
- The economic value created, rather than direct costs of service provision, needs to be able to be materialised.

33. Have termination fees been effective in enabling infrastructure network owners to adjust their networks in response to declining usage?

- We have no comments on this issue.

34. What, if any, government oversight should there be of privately owned providers of irrigation services?

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- There are two schools of thought on this issue.
- That we should allow the market to manage itself with ACCC managing anti-competitive behaviours.
- Or that they should operate under the same regulatory conditions as government providers and any other water service providers.
- As water service providers, they would be subject to the same quality and economic regulatory oversight as other water utilities.

35. How robust are the cost-benefit analyses applied to irrigation infrastructure projects? Where could they be improved?

- At the highest level, they are often flawed by poor cost estimating, especially of the 'alternative' options which are less well defined.
- A full and transparent analysis of the state-wide costs, benefits and risks of large scale infrastructure projects is critical to any decisions on government investment in such projects.
- There is little evidence that 'robust' cost-benefit analyses are used, because they are purely financial, rather than economic analyses, and they mostly don't take future risks into account.
- Always challenging and the nature of co-operatives and their governance challenges make infrastructure investment processes difficult.
- More work is needed in identifying costs and benefits to third parties and the environment out as robust as most other cost-benefit analysis. We need to ensure life cycle costs are included.

36. Are there sufficient checks and balances to prevent unviable or unsustainable infrastructure projects from proceeding? If not, what are the areas needing improvement?

- This should be managed by the market; the bigger challenge is when government make investments which prove not to be economic and are not transparent.
- We are subject to the checks and balances of a participative democracy. Transparency of costs and benefits can help inform the debate and the decisions.
- Political intervention will always be an issue, the aspiration for Northern Dams is a good example. Robust cost-benefit analyses with transparent, open public engagement needs to occur on all projects.

Urban Water Services

37. What policy and institutional arrangements are needed in the urban water sector to improve the efficiency of service provision?

- Significant opportunities exist for harmonisation of legislation and regulation across state boundaries. Currently only health targets are harmonising across states. Room exists for harmonisation across environmental, social and economic aspects.
- Harmonisation has benefits to improve comparative benchmarking across existing utilities and lower entry barriers to new entities to the market.
- Harmonisation allows for the establishment and/or improvement of practical Industry best practice, which WSAA continually strives for.
- In many states variations in institutional arrangements exist in city and regional areas, especially in NSW and Queensland where the urban water sector has been used to improve the viability of general purpose Councils.
- Numerous reports have recommended that Urban Water should be separated from General Purpose Council operations as sought under the 1994 Water Reform Agenda and we continue to promote this.
- We need to minimise cross subsidies in service delivery to recognise true costs and accordingly stimulate improved practice in service and delivery. Any consumer welfare subsidies should be transparent cross subsidies and customer service obligations need to be accurately costed, with transparency to the community.
- Robust cost-benefit analyses should also be applied to compare infrastructure and policy options. The current approaches result in stranded assets (e.g. the Pilbara cities in WA) and wastage of money. Public utilities should be required to maximise the economic benefits of their activities to society and the environment, not just pursue the 'cheapest' options.
- A lack of commitment to IWCM remains with the split of responsibility between utilities and general purpose councils. Regional and catchment water management plans need to address these issues and resolve direction and responsibilities to maximise benefit to the community.
- The streamlining of the number of regulatory agencies at a state level, that have an oversight role in the urban water sector will reduce costs to the consumer.

38. What approach should be taken to price regulation in the urban water sector? Is there a need for greater consistency in price setting approaches across different jurisdictions? Do current pricing practices promote investor confidence?

- There is a need for a great consistency of approach across jurisdictions.
 - An overarching framework should be provided by the Commonwealth as there are pricing regulators who get carried away with specific economic theory which is contrary to what is best for all.
 - The basic approach could be that prices should reflect prudent and efficient expenditure, and should move towards something close to full cost recovery over time, to ensure that water utilities remain financially viable.
 - Within the overarching framework each jurisdiction should be independent, as one size never fits all.

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- Regulatory periods should be set to five years, investors should be fine, as most investments are more volatile than that.
- Greater consistency and transparency in the method of price calculation and decision making processes need to be made (non- political).
- Standardisation of the approach to consideration of externalities should be made at the national level.
- A version of the UK OfWat model might be applicable.
- Improvements and harmonisation of economic regulation will improve confidence.
 - If a national overarching framework is not viable, we need a guideline on price regulation added to the NWI, recognising that not all states and territories will respond to it identically.
 - If utilities continue to remain in Government ownership then the economic regulators need more power to break the connection to government so that the water businesses are not seen as simply a source for dividends by the states.
 - For example, in WA 'price regulation' is a postage stamp concept, because the ERA only advises government. As a result, the pricing of water services is almost always higher than CPI because the WA Government wants the tax equivalent dividend.
 - The current practices of OfWater and Victoria are world-best practice.
 - Pricing should reflect true cost at the local level. All subsidies, customer service obligations, cost shifting and dividends need to be transparent to all.
 - There is a need for greater consistency (scope of consideration is very different in NSW from say, Vic). Economic value created, not just direct costs of assets, should be able to be charged for/recuperated.
 - It should be noted that the Water Services Association of Australia supports independent economic regulation as it provides more certainty to investors (WSAA (2015), "Doing the important as well as the urgent: Reforming the urban water sector", and (2014 "Position statement on improving economic regulation".)
- The development of best practise and improved performance reporting will allow comparative benchmarking to assist with economic regulation.
 - The current performance reporting is undertaken in a manner that individual utility performance cannot be compared across utilities as much of the data are not reported consistently.
 - Comparative benchmarking is the only real tool available within a monopoly arrangement as most water utilities are.
 - Cost to serve is unfortunately not comparable across utilities due to geographical and demographical issues.
 - The development of a series of best practice guides such as customer performance, asset management, project management etc. can provide a basis for comparative benchmarking.

39. Is there a case to increase the involvement of customers in regulatory decision making, as is commencing in Victoria? If so, what is the best way to do this?

- The current Victorian model, which is modelled on the UK OfWat approach, allows flexibility of approach, but requires deep and broad engagement with customers on the pricing submission.
- The current Victorian regulatory framework has made water utilities a lot more customer-

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centric. It has driven the customer-ethos right through organisations.

- It is important to engage communities in discussions on their priorities for the use of water resources and their expectations on water service levels at different stages of water scarcity, as an input into future water supply planning and decisions on new water sources.
- We do have to be careful though not to put all decisions to customers. We need to educate our customers in order that they the ability to make an informed decision.
- We need to recognise the issues where customer is not informed and it is not valid to seek their involvement. Issues such as future strategies, technical options and economic cost-benefit analyses can be difficult to communicate to the public.
- We also need to recognise that whilst customers are an important part of our decision-making process, they are only one part and we must be open with them on when and where we want their involvement and what we will do with their decisions.

40. How can the level of competition in the provision of urban water services be increased?

- It is important that consumers recognised the difference between ownership and outsourcing of the operation of urban water services as they are often used interchangeably.
- It is not realistic to imagine different networks operating in the same area as we want need to address the technical challenges of common carriage on water quality and public health.
- The same outcomes could and should be achieved through effective national economic regulation driving improved efficiencies and better customer pricing.
- If the objective is greater private sector involvement in the ownership and management of assets then, less political and regulatory intervention (both real and perceived) is required.
- There are already high levels of competition for contracts in the urban water sector and most of the expenditure of water authorities is outsourced through competitive processes. It is estimated that 90% of capital works programs are undertaken by the private sector and 70% of operations programs are undertaken by the private sector.
- We need to increase the level of transparency of ownership and outsourcing.
 - Currently no records exist on a national basis of ownership of urban utilities. The Commonwealth Attorney General is currently investigating this within their reviews of critical infrastructure and cyber security.
 - Currently no detailed records exist of private and public delivery of services with urban utilities.
 - The transparency of this information can provide the market with triggers to provide better and more cost-effective solutions.
 - Utilities should be required to make public, proposed procurement requirements and approaches within their economic assessment with justification as to the preferred approach to enable feedback from providers.
- The development of a second generation of consistent national performance reporting is required to achieve genuine comparative benchmarking.
 - The current performance reporting is undertaken in manner that individual utility performance cannot be compared across utilities.
 - A second generation of performance reporting based on comparable attributes needs to be developed to achieve comparative benchmarking.
 - These are likely to be based on a series of best practise guides that would need to be developed for the industry.
 - The cost to serve in a specific locate can rarely be used to compare to the cost to

- serve in a different location. Best practice guides though can be developed to provide this comparison.
- Best practise guides can also provide advice on ensuring alternative service or project provision arrangements can proceed, based on transparent consideration of all the factors to do so.
- We need to decrease the barriers to entry
 - Having different third party entry requirements in different states is a barrier to entry.
 - Some major utilities are now taking a long-term outsourcing to a single entity approach which has the effect to restriction access to small and medium size providers.

41. Do water and wastewater services delivered to regional and remote communities, including Indigenous communities, comply with relevant public health, safety and environmental regulations? If not, what policy remedies might improve performance?

- Compliance with public health standards in remote communities is often difficult due to high costs, poor water quality, and limited capacity in water service delivery. The NWI should encourage improved service delivery and improved transparency in the costs of service and funding arrangements.
- The costs of meeting dam safety standards (ANCOLD) has been shown to be disproportionately high relative to other types of public health and safety expenditure, contributing to higher infrastructure costs for rural users (see Economic Regulation Authority (2007) inquiry into Harvey Water bulk water prices).
- NSW and Queensland could follow the Victorian model and divest councils from the provision of water and sewer services, and create regional water corporations that have the financial capacity to deliver services that comply with the relevant regulations.
- Many of these areas thought, could not achieve the financial capacity required to viably be serviced by regional water corporations and other models may need to be developed and recognised.

42. Do the processes for determining public health, safety and environmental regulations applying to urban water providers promote cost-effective and targeted regulations? Do the various policy-making and regulatory bodies have clear roles and responsibilities?

- The current approach does not promote a cost-effective approach.
- There are overlaps in the policy making and regulatory bodies.
- There is often competition amongst the water resource, environmental, health and economic regulators, thus blurring responsibilities.
- In some mature jurisdictions, reasonable conversations are held between regulators and entities to ensure regulatory objectives are achieved at least cost, and there are examples of this, but it is not always the process and it is often slow and driven by the utility not the philosophy of the regulator.
- There is a lack of regulatory accountability amongst state regulators, and an absence of scientifically-based risk assessment applied to many health and environmental issues.
- We need to reinstate the Ministerial council for Environment and Water. The current AGMIN (Ministerial Council for Agriculture and Water is in sense informal and outside the CoAG

structure and has never had any significant water issues on its agenda anyway.

- A case could be mounted for having a single set of nationally-developed and universally-applied regulations. Failing this, reinstate at COAG a representative committee that deals with the harmonization of regulations and regulatory approaches.

43. What is the importance of integrated water cycle management? Are roles and responsibilities in relation to this clear?

- An integrated approach is essential to delivery of better services to the community in the urban context.
- Roles of master water planning in cities are very muddled, too many players leading to an absence of real implementation of IWCM approach. Integration is required both across the water cycle and across sectors (e.g. with local councils and planning sectors).
- Roles and responsibilities are not clear; however, collaboration and planning processes is likely to be the key rather than institutional changes.
- Integrated water supply management could provide cost-effective solutions for balancing supply and demand and should be evaluated alongside the costs and benefits of all other options.
- Good planning, delivery and ongoing management of alternative supply options should be promoted by the NWI. Alternative schemes often fail due to poor governance and operational arrangements.
- IWCM needs to be considered in any new development, integrating land management and water management and planning policies, especially with respect to water sensitive urban design.
- We are moving to a water and resource recovery (water from wastewater) phase, whilst the responsibility for operation of the storm-water drainage system remains with local government which is a carry-over from the 19th century.

44. How can demand management approaches such as water restrictions and water-use efficiency measures best contribute to the efficiency of urban water services?

- They are very important and we have some best practices in them.
- Demand management approaches have proven to be a very effective way to avoid major augmentations to date. However, demand has not significantly bounced back and the urban water sector needs to better understand to what extent they can rely on water restrictions and water efficiency measures in the future.
- Demand management approaches can provide cost-effective solutions for balancing supply and demand and should be evaluated alongside the costs and benefits of all other options. It is important to engage with communities to determine the willingness to accept different levels of restrictions.
- Water efficiency should be considered at the town planning, development and building approval stages. This is where there will be the greatest opportunity.

Section 7 - Achieving Reform**45. Should further water reform be pursued through an improved NWI?**

- The NWI has been a very successful tool in pursuing water reform across Australia.
- With significant water reform still required it will need to be pursued through a vehicle like the NWI.
- With significant reform still required, the form of the vehicle may depend on the leadership approach acceptable to the government.
- The role of the NWC as the industry leader needs to be replaced. A replacement could be a Ministerial Council, a significantly reduced agency or a cross government / industry working group.

46. How can policy impetus be best generated?

- The association calls on the Commonwealth Government to make a clear “National Statement on Water Security for Australia - 2030”
- The role of the NWC or similar body as the industry leader needs to be re-established.
- A refreshed National Water Initiative with a 30-year outlook needs to be developed and agreed by COAG.
- Both sanctions and incentives should need to be utilised. The mechanisms used in national competition Policy were effective though not complete or undertaken in a harmonised manner.

The following documents are attached for reference by the Productivity Commission. They are documents in which should be considered during the review process. They include;

1. Australian Water Association/ Deloitte, State of the Water Sector Report 2015, Sydney 2015
2. Australian Water Association/ ARUP, Australian Water Outlook, Sydney 2016
3. Australian Water Association, Australian Water Consumer Outlook 2015.
4. Australian Water Association, Emerging Challenges and opportunities to secure our water future, Sydney May 2017
5. Australian Water Association, Submission to the Independent Review of the water Efficiency Labelling and Standards (WELS) Scheme 2015
6. Australian Water Association, Submission on draft national groundwater Strategic Framework 2015-2025
7. Australian Water Association, Promoting investment in the Water Sector, 2015
8. Australian Water Association, Alternative Models for Financing Water Infrastructure, 2016