

Australian freshwater study

Memo | Stakeholder consultation | May 2019



The Ian Potter
Foundation



THE MYER
FOUNDATION



Point.
Advisory

alluvium

Citation: Point Advisory and Alluvium Consulting (2019) *Australian Freshwater Study – stakeholder consultation memo*, memo prepared for The Ian Potter Foundation and The Myer Foundation, Melbourne

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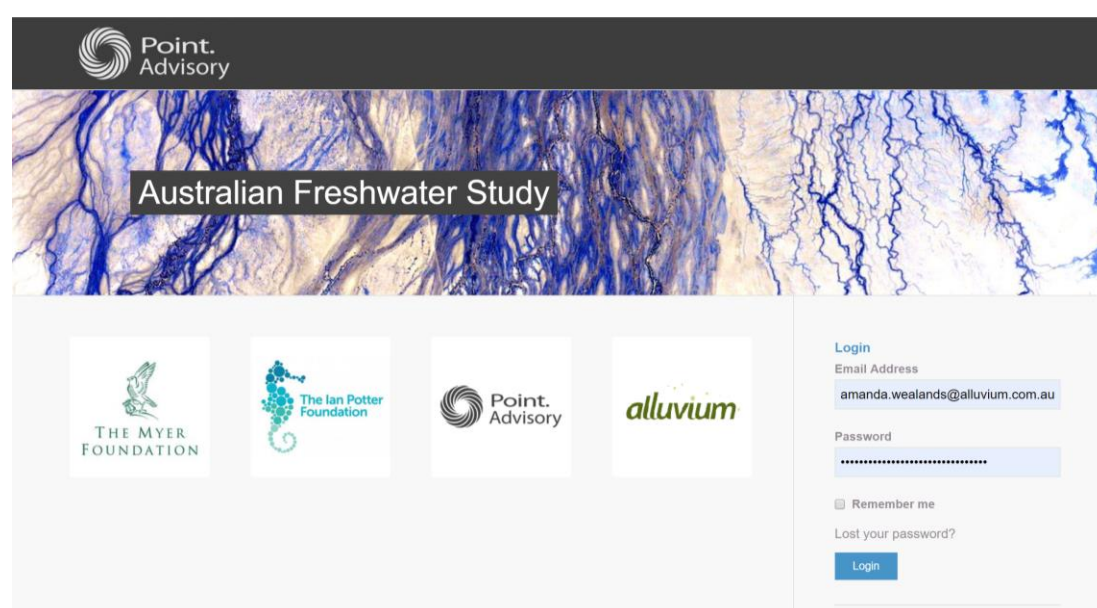
This memo outlines the approach and outcomes of stakeholder conducted as part of the Australian Freshwater Study for the Ian Potter and Myer Foundations.

About

A set of six draft issues papers (including an overview paper, water governance, economics, freshwater ecosystems, First Peoples' water rights, and social values) were developed by Point Advisory and Alluvium as the first step in the Australian Freshwater Study. The papers provided a "long list" of major issues facing the management of fresh water in Australia as well as a general indication of options for philanthropic intervention.

The draft issues papers were open for online stakeholder feedback from 3 December 2018 until 15 February 2019. Invites to participate in the study were sent (via Ian Potter Foundation communications) to over 350 recipients representing a comprehensive cross section of organisations involved in water management in Australia (see Attachment 1 for list of organisations invited to participate).

Stakeholders were invited to register for the study and provide feedback on relevant papers through an online portal. At the completion of the consultation period, 217 individuals had registered for the study.



Through the online consultation website, stakeholders were asked a series of survey questions relating to each of the issues papers (see Attachment 2 for the complete list of survey questions). The survey questions were designed to elicit:

- the level of agreement with the issues identified in the papers
- the level of agreement with the characterisation of each issue
- the level of importance that stakeholders gave each issue
- if there were any omissions, misleading or incorrect information in the issues papers
- stakeholder views on what can be done by philanthropic organisations to address issues.

Response

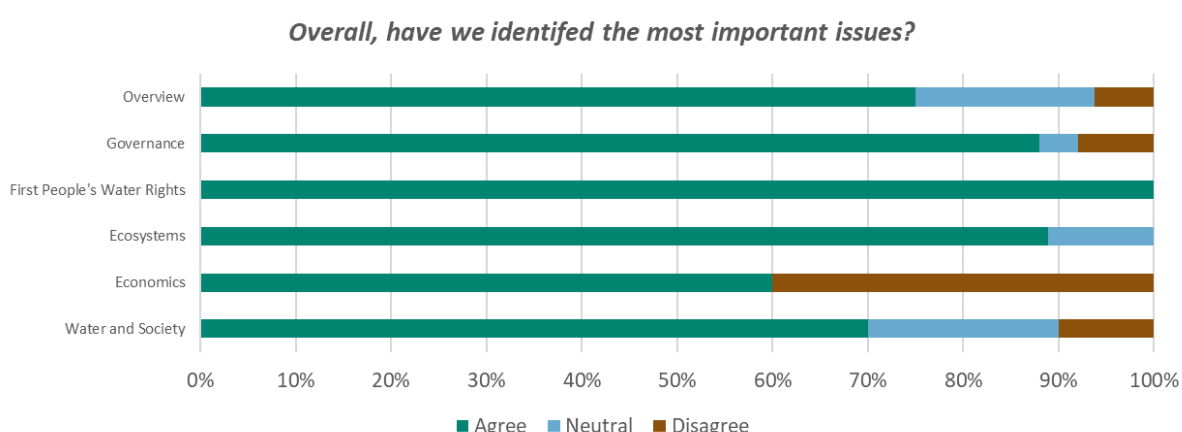
Stakeholders responded to the study through both direct email submissions and also through the online survey tool. Fifty-eight individuals and organisations provided 133 online and email submissions (see breakdown in table below).

Paper	# submissions
Overview	32
Governance	30
First People's Water Rights	18

Paper	# submissions
Ecosystems	22
Economics	15
Water and Society	11
General comments	5
Total	133

Results

Results of the consultation were generally in agreement with the issues presented and highly supportive of the work and aspirations of the Foundations to influence transformative change in freshwater management.



"[...] have spent the morning commenting on all 5 issues papers which provide an excellent overview of contemporary water issues - whoever wrote these deserves to be congratulated."

"[...] this body of work is an excellent synthesis of the key issues in current water management. The issues papers make a valuable contribution to identifying how philanthropy can contribute towards progressing effective water resource management."

"I registered to get access to your issue papers and read them. You have done an excellent job with these and the timing is perfect given the current situation in the Darling River, Menindee Lakes and other waterways in NSW and Victoria.[...] It would be great if we could get bodies such as the Ian Potter or Myer Foundations to invest in the issue, and I wonder how they would be able to assess a role for themselves in the many recommendations for involvement of philanthropic organisations referred to throughout the papers."

A summary of online consultation results, including feedback by paper, is provided in Attachment 3.

In addition to the online consultation process, Point Advisory and Alluvium also conducted a series of one-on-one discussions (between November 2018 and March 2019) with key opinion leaders in freshwater management and /or philanthropic influence (see list in Attachment 4). These discussions informed the parallel work undertaken to identify more detailed options for philanthropy to intervene to catalyse change.

Both work streams (issues papers and option development) have been consolidated into a final report for the project that matches issues with options and recommends a short list of specific future interventions to the Foundations for more detailed review.

Attachment 1: List of organisations invited to participate in the study

- ACT Environment Planning and Sustainable Development Directorate (EPSDD)
- ACT Government
- ACT Landcare, Landcare NSW
- ACT NRM (ACT)
- AGL, AGL Hydro
- Alliance for a Clean Environment
- Anglo American
- Anindilyakwa Land Council
- Aquacell
- Aquatec Maxcon
- Arid Lands Environment Centre Inc
- Arrow energy
- Arthur Rylah Institute
- Auscott Limited
- Australian Bureau of Agricultural and Resource Economics and Sciences
- Australian Conservation Foundation
- Australian Farmers for Climate Action (AFCA)
- Australian Floodplain Association
- Australian Landscape Trust
- Australian National University
- Australian Network for Plant Conservation Inc
- Australian Network of Environmental Defenders Offices Inc (ANEDO)
- Australian Platypus Conservancy Inc
- Australian Rainforest Conservation Society Inc
- Australian River Restoration Centre
- Australian Tropical Research Foundation
- Australian Wildlife Conservancy
- Australian Youth Climate Coalition Ltd
- Barossa Infrastructure Ltd
- Barwon Water (VIC)
- Bega (dairy)
- BHP
- Birds Australia (Birdlife Australia)
- Black Throated Finch Trust
- Bob Brown Foundation Inc.
- Border Rivers Food & Fibre
- Botanic Parks and Gardens Authority
- Bundaberg Regional Irrigators Group
- Burnett Mary Regional Group (QLD)
- CANA
- Cape York Natural Resources Management (QLD)
- Cape York Partnership
- Capricorn Conservation Council Inc
- Carpentaria Land Council
- Central Desert Native Title Services Ltd
- Central Highlands Water (VIC)
- Central Land Council
- Central Tablelands LLS (NSW)
- Central West LLS (NSW)
- Centre for Appropriate Technology
- Commonwealth Environmental Water Office
- Charles Darwin University
- City West Water (VIC)
- Climate Council
- Coleambally Irrigation Co-Operative
- Coliban Water (VIC)
- Commonwealth Ministerial Indigenous Advisory Committee (IAC)
- Condamine Alliance (QLD)
- Conservation Council ACT Region Incorporated
- Conservation SA
- Corangamite CMA (VIC)
- Cotton Australia
- Cradle Coast NRM (TAS)
- CRC for Developing Northern Australia
- CSIRO
- Charles Sturt University
- Dairy Australia
- Deakin Uni
- DELWP (VIC)
- Dept Energy & Env (Threatened Species)
- DES- QLD
- Desert Channels Queensland (QLD)
- DNMR (QLD)
- Doctors for the Environment (Australia) Incorporated
- DPI Fisheries
- DPIPWE (TAS)
- East Gippsland CMA (VIC)
- East Gippsland Water (VIC)
- Eastern Hills & Murray Plains Catchment Group Inc
- Edward Wakool Anglers
- Environment East Gippsland Inc
- Environment Protection Authority - Tasmania
- Environment Victoria
- Environmental Defender's Office (Qld) Inc
- Environmental Defenders Office NSW
- Environmental Defenders Office of Northern Queensland Incorporated
- Environmental Defenders Office SA
- Environmental Defenders Office Tasmania
- Environmental Defender's Office WA Inc
- Environmental Justice Australia
- Environs Kimberley
- EPA - Vic
- EPA SA
- Field and Game Australia Inc Wetlands Environmental Taskforce Trust
- First Nations Legal and Research Services (previously Native Title Services Victoria)
- Fisheries Habitat Improvement Fund

- Fitzroy Basin Association (QLD)
- Fitzroy Partnership for River Health (Nathan Johnston)
- The Australia Institute
- Gippsland Water (VIC)
- Gladstone Area Water Board (QLD)
- Glencore
- Glenelg Hopkins CMA (VIC)
- Kilter Rural
- Goulburn Murray Water
- Goldfields Land & Sea Council
- Goulburn Broken CMA
- Goulburn Valley Environment Group
- Goulburn Valley Water (VIC)
- Goulburn-Murray Water (VIC)
- Grattan Institute
- Great Barrier Reef Foundation
- Greater Sydney LLS (NSW)
- Greening Australia
- Griffith Uni
- Groundwater, UNSW
- GWMWater (VIC)
- Gwydir Valley Irrigators Association
- Healthy Land and Water
- Icon water
- Incitec Pivot
- Inland Rivers Network
- Irrigation Australia
- James Cook University
- Kakadu Parks
- Kimberly Land Council
- Kowanyama Land Management Office
- Landcare NSW
- Landcare Tasmania
- LaTrobe University
- Lake Eyre Basin Scientific Advisory Committee
- Lifeblood Alliance
- Local Land Services - NSW
- Lock the Gate Alliance Ltd.
- Lower Murray Water (VIC)
- Macquarie Marshes Landholder
- Macquarie River Food and Fibre
- Macquarie Wetlands Association Inc
- Mallee CMA (VIC)
- Martuwarra (Fitzroy River) Council
- Meat and Livestock Australia
- Melbourne Water (VIC)
- Mid-Murray field naturalist group
- Monash Uni
- Murdoch
- Murray Darling Wetlands Working Group
- Murray Goulburn (dairy)
- Murray Irrigation
- Murray LLS (NSW)
- Murray Lower Darling Rivers Indigenous Nations (MLDRIN)
- Murray-Darling Basin Authority
- Murrumbidgee Groundwater Inc
- Murrumbidgee irrigation
- NAILSMA
- Namoi Water
- National Farmers Federation
- National Parks and Wildlife Service
- Natural Resources SA Arid Lands (SA)
- Natural Resources SA Murray-Darling Basin (SA)
- Ngaanyatjarra Council
- Ngarrindjeri Regional Authority (SA)
- North Central CMA (VIC)
- North Coast LLS (NSW)
- North East CMA (VIC)
- North East Water (VIC)
- North West LLS (NSW)
- Northern Agricultural Catchments Council (WA)
- Northern Basin Aboriginal Nations
- Northern Basin Advisory Committee
- Northern Land Council
- Northern Tablelands LLS (NSW)
- Northern Territory Government
- Northern NESP Hub
- NQ Dry Tropics (QLD)
- NRM North (TAS)
- NRM South (TAS)
- NSW Aboriginal Land Council (NSWALC)
- NSW Department of Industry - Lands and Water Division (DoI)
- NSW EDO
- NSW Fisheries
- NSW Natural Resources Access Regulator
- NSW Office of Environment and Heritage (OEH)
- NT Fisheries
- NTSCORP (NSW)
- Nyamba Buru Yawuru Ltd
- Office of Northern Australia
- Office of Water Science (Bioregional assessment program)
- Olam Orchards Australia
- Origin
- Parks Australia
- Parks Tasmania
- Parks Victoria
- Pastoralists and Graziers Association of Western Australia
- Peabody
- Peel-Harvey Catchment Council (WA)
- Perth NRM (WA)
- Pioneer Valley Water

- Port Phillip and Western Port CMA (VIC)
- Preston Valley irrigation co-op.
- Productivity Commission
- Q Coal
- Qld Fisheries
- QMDC (QLD)
- Queensland Resources Council
- Queensland South Native Title Services
- Queensland. Parks and Wildlife Service
- Rangelands NRM (WA)
- Reef and Rainforest Research Centre
- Reef Catchments (QLD)
- Renmark Irrigation Trust
- Ricegrowers' Association of Australia Inc
- Rio Tinto
- Riverina LLS (NSW)
- Riverina Winegrapes Marketing Board
- Riverness
- Riversmart
- SA- EPA
- SA Water (SA)
- Santos
- SARDI
- Shoalhaven Water (NSW)
- Snowy Hydro
- South Australian Chamber of Mines & Energy
- South Australian Murray Irrigators Incorporated
- South Coast Natural Resource Management Inc (WA)
- South East Water (VIC)
- South Gippsland Water (VIC)
- South West Aboriginal Land and Sea Council
- South West Catchments Council (WA)
- Southern Gulf NRM
- Southern Queensland NRM
- Southern Riverina Irrigators
- Southern Rural Water (VIC)
- Southern Rural Water (VIC)
- State Health Departments (Jeff Standen, NSW Health)
- Stefano's restaurant, Mildura
- Sunrice (rice)
- Sustainably managed livestock
- Sydney Water (NSW)
- Terrain NRM (QLD)
- Territory NRM (NT)
- The Australia Institute
- The Nature Conservancy, Australia
- The Sunrise Project
- Torres Strait Regional Authority
- UNE
- University of Adelaide
- University of Canberra
- University of Melbourne
- University of Tasmania
- UNSW
- University of Western Australia
- Veolia pty ltd
- Victorian Catchment Management Council
- Victorian Env Water Holder
- Victorian Farmers Federation
- Victorian Federation of Traditional Owner Corporations
- Victorian Landcare network;
- WA Museum
- Wannon Water (VIC)
- Water Corporation (WA)
- Water NSW (NSW)
- Wentworth Group
- West Gippsland CMA (VIC)
- Western LLS (NSW)
- Western Water (VIC)
- Westernport Water (VIC)
- Wheat Belt NRM (WA)
- Wimmera CMA (VIC)
- Yamatji Marpla Aboriginal Corporation
- Yancoal
- Yarra Valley Water (VIC)

Attachment 2: Survey questions

Question number	Text	Response type
1	Overall, have we identified the most important issues?	Five-point Likert scale from “Do not agree” to “Strongly agree”
2	Have we missed any issues? If we have, please add additional issues below.	Three free text boxes labelled “Additional issue 1” [change number for each text box 1 through 3]
3.	Please rate each issue	Each issue stated verbatim with a five-point Likert scale from “Not important” to “Very important” Three additional issues “Your additional issue 1” [through 3] with the same Likert scale
4.	Do you agree with how we have described the issue?	Each issue stated with five-point Likert scale from “Do not agree” to “Strongly agree”. Each Likert scale for each issue followed by a free text box labelled “Please tell us why you made this assessment?” or if that text is too long “Please tell us why?” or “Why?”
5.	What do you think is the most important change required to transform [...issues paper theme...] in Australia?	Free text box
6.	Is there anything else you would like to add?	Free text box.

Attachment 3: Summary feedback by paper

The following provides a sample of the overall feedback received on papers. Full de-identified feedback records are available to the Foundations on request.

The overview paper - general feedback:

The coverage of this paper is excellent and much more than an 'Overview'. There are no obvious inaccuracies in this paper.

Overall this is a very comprehensive and well balanced piece of work.

A good overview paper - thank you to the authors.

Great summary. I can see this resource being really useful to Educators from Secondary to Tertiary (perhaps even primary) and for policy makers at all levels. Great to have an up to date well researched and referenced resource

Really well written and factual.

Excellent written.

Powerful points, comparison of MD and Amazon is amazing.

Explains unpredictability of rainfall very well.

Highlighting the lack of understanding of Australian GW systems is important.

Explains well how development has damaged natural systems.

The lack of understanding of the way water worked pre settlement in the Australian landscape is well told.

First Nations story is very powerful.

This was an excellent well written paper with clear graphics that illustrate key points well. [...] I particularly appreciate the clear language used which navigated the space between science and policy with a clarity that I rarely see.

A much needed, well constructed overview of what is, and will increasingly become our Nation's debated and major challenge to equitably address over the next 20 years

The overview paper gives an excellent overview of the complex issues pertinent to water in Australia.

I am really impressed with the Overview Paper and the Governance Paper. They are both excellent papers, taking a balanced view of the history and challenges facing Australia in managing its freshwater resources. They rightly emphasise the uncertainties associated with climate change, population increase and weaknesses in governance.

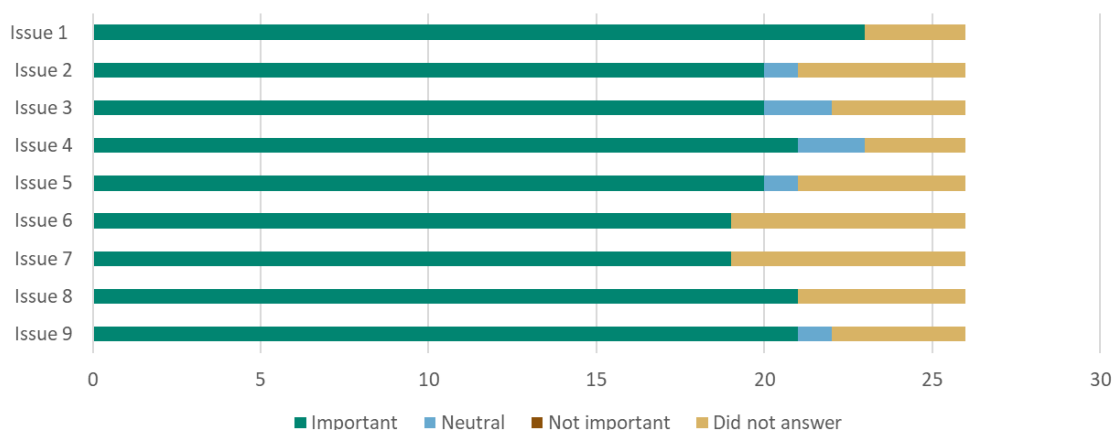
Governance paper

Issues identified in paper:

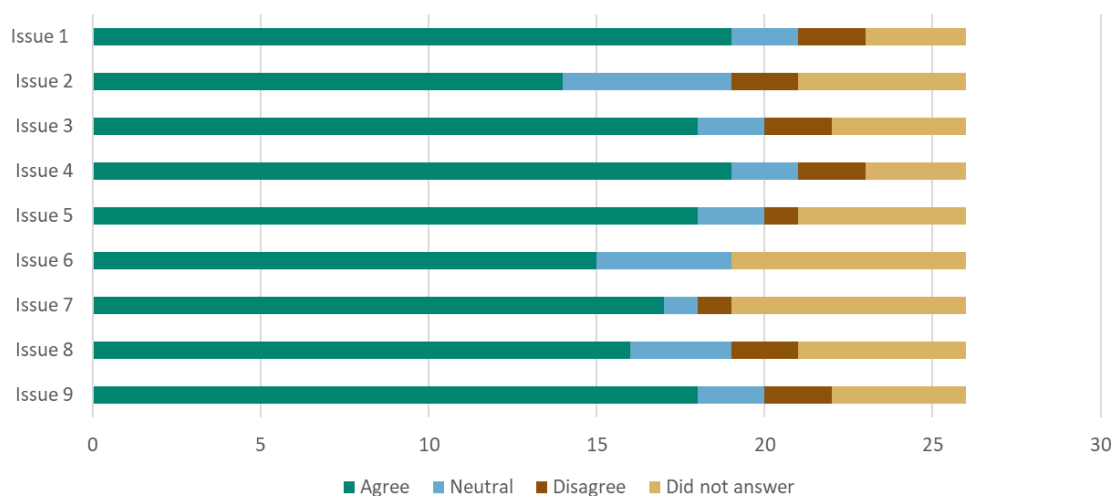
1. Australia needs a long-term sustainable national water management strategy that includes a clear articulation of environmental, social, cultural and economic costs, benefits and trade-offs.
2. Water management strategies must be better linked to catchment and land management strategies.
3. Australia needs an independent statutory authority to oversee the effective implementation of a long-term sustainable water (and linked catchment) management strategy.
4. Water policy and management agencies must go beyond particular interest groups and market values in their planning and management.
5. Improved research, monitoring and assessment programs are essential to provide decision-makers with better information and help assess the effectiveness of water management at appropriate spatial and temporal scales.
6. First Peoples must be given greater involvement in water policy and management.
7. Urban water management agencies must place greater emphasis on developing adaptation strategies to address future population growth and climate change.
8. Rural water management agencies must develop comprehensive adaptation strategies to address future climate change impacts on environmental assets and irrigated and dryland agriculture.
9. The regulation, compliance and enforcement of existing water policy regulations and laws must be improved

Survey results:

Governance - Rate the importance of this issue in terms of the management of freshwater in Australia



Governance - Do you agree with how we have described the issues?



Overall feedback notes – governance paper:

"Insufficient attention has been given to the differences between States and Territories. In particular, Western Australia has still not undertaken the full package of NWI reforms and there is a serious lack of environmental water provisions. This needs national attention."

"The Northern Development push of the National Government is a mixed blessing. There are areas of northern Australia that should remain undeveloped in the intensive fashion that has been applied in southern Australia. The proposed construction of new dams and irrigation schemes is a case in point. Just look at the proposal for the Flinders River in northern Queensland. When you look at the floods of the past two weeks, it is infeasible to suggest that a reservoir could practicably be deployed in such conditions. The same goes for proposals in the WA Fitzroy River catchment. So much of this northern development rhetoric is based on activities like beef export development, but the environmental harm of such proposals is too great at this time, when we should be developing alternative food industries and not increasing our greenhouse gas emissions with more beef cattle. The landscape is also not suitable for the levels of stocking anticipated. When you get extended serious drought in northern Australia (such as in north-west Queensland and north-west WA, the damage to the landscape is enormous and very difficult to reverse. Any northern development needs to be sensible and sensitive to the realities and values of the northern Australian environment."

"The major omission is issues to do with public finance: funding in general, public versus private issues (that are far more important than return flows in the debate over infrastructure spending) and cost shifting between state and federal agencies."

"... the marginalisation of central agencies of government is an important 'governance' issue in water policy because they are less likely to be captured by so-called stakeholders, and are more capable of balancing water policy with other priorities of government. Capture is not meant in a pejorative sense. Water agencies have to collaborate with so-called stakeholders for good results in environmental projects. Such beneficial cooperation is jeopardised when difficult financial decisions have to be made and/or conveyed by the same officials."

"Anything of genuine interest in policy making boils down to thinking about the underlying sources of uncertainty (technical, climatic, economic, social, political and more) and how this uncertainty is best handled. Instead 'process' and 'plan' seem to have been uppermost in water policy debates."

"Reference should also be made to the role of water quality guidelines as a key cross cutting component of the governance (and monitoring) issues. I have been acutely aware of the long and fraught process for the latest revision of the ANZECC water quality guidelines. Given the economic importance of such guidelines and their role in governance I was appalled at the lack of commitment (resources and \$) of most states to the process. As a nation we have actually gone backwards on this matter - compared with the process in place for the then revolutionary development and acceptance of the ANZECC 2000 guidelines"

"Issue 4 is a broader issue in Australian politics, with vested interest groups getting the greater ear of Government. Its perhaps outside the issue of Water per se, but I think we need reform of political donations law to reduce the influence of lobby groups, together with powerful anti-corruption laws and enforcement agencies (ICACs). No doubt philanthropists could play a role in this space, and it would be of wider value to Australian society beyond just water."

"The tendency for water policy and governance options to be dominated by group think and conservative ideas. There is a need for ways of exploring novel and or radical options that are currently not part of the mix."

"Overcoming a prevailing sense of Australian triumphalism about water governance. There is a major problem with those involved in Australian water governance spruiking a narrative about how its world's best practice. This triumphalism has no basis in fact or outcomes and the need for humility is obvious"

"The report lists a lot of policy issues but overall Australia needs professional and leadership capabilities to address these"

"Leadership within water resource management authorities. - We can't effect change if we continue to employ the same people."

“Traditional Owners need to be autonomously resourced to participate effectively in ICM.”

“Governance should also be described in terms structure. Philanthropy should be lobbying for a truly independent Authority that manages rivers (e.g. does not split off operational arms) and recommends SDL's based on best science that is independently reviewed through a robust scientific and public review process. Another body should be set up to check compliance. These should be federal bodies that do not take instructions from States. A governance review with public consultation may be recommended for instance. Just taking productivity commission recommendations is completely inadequate. This is too narrow a point of view. Federal takeover of water and constitutional reform needs to part of the discussion.”

“Overall this is a very negative paper. It must be recognised that despite the warts and short-failings, and despite enormous political inertia, an enormous transformation has taken place in water in Australia over the last 30 years. Do we have a good understanding about the factors that have seen water reform in Australia has been so successful? I have some ideas, but no-one seems to want to focus on this aspect, which is of crucial importance in the global context.”

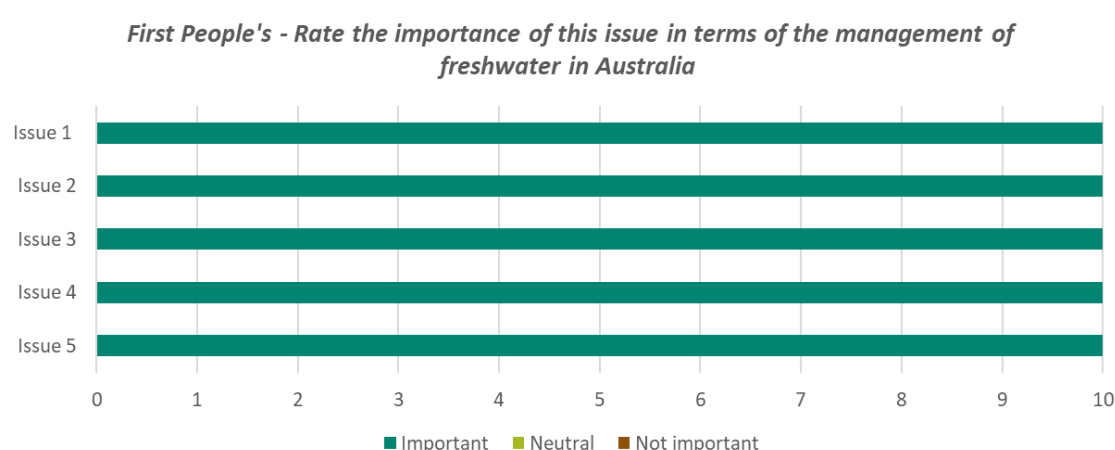
“I am very worried that the environmentalism of the last 3 of 4 decades, particularly as relates to biodiversity conservation, may prove to be a passing fad. This is an issue that extends well beyond water policy, but includes it. Ironically, when environment NGOs did start to take river health seriously, it was in an era when most 'environmentalists' were obsessed with tall, wet forests. Now, with the Commonwealth having spent and committed up to 13 billion on MDB reform, Commonwealth and state funding for all other areas of the environment has been pared back to the bone. What can philanthropy and NGOs do about this I wonder?”

First People's

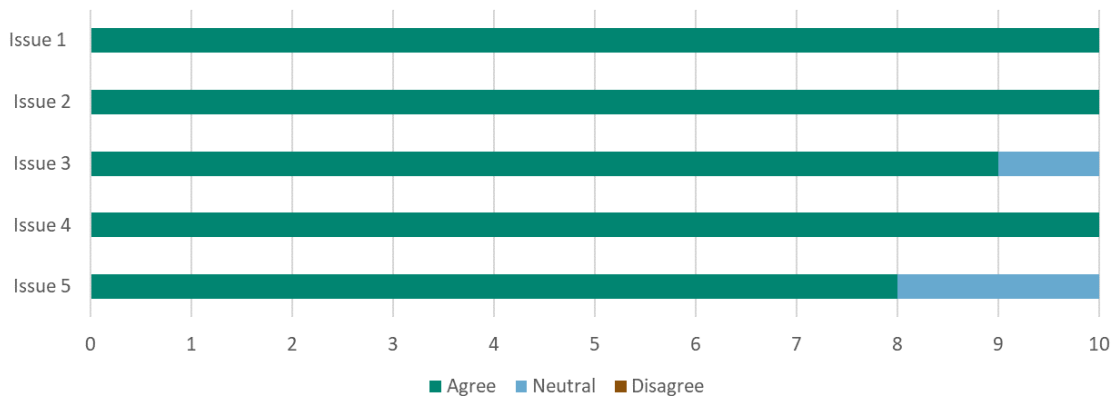
Issues identified in paper:

1. First Peoples' water rights and interests are not adequately acknowledged and protected by law.
2. Existing water planning and management regimes and institutions need to increase First Peoples' participation, influence, self-determination and control.
3. First Peoples' interests in water ownership, management, use and development do not always map easily onto existing “Western” legal, cultural, scientific, environmental and economic frameworks.
4. Australia is not meeting its UN Sustainable Development Goal (SDG) commitments for Indigenous Australians living in remote communities (SDG 6)
5. We need to invest for the long-term to improve First Peoples' water rights and involvement in water management.

Survey results:



First People's - Do you agree with how we have described the issues?



Overall feedback notes – first people's paper:

"This is an excellent paper on a complex issue."

"If I have prioritise one issue above all others it's this one. We have to settle our debt with indigenous people. Part of reconciliation process. Good paper, comprehensive summation. Support 'what can be done' and 'what philanthropy could do' sections."

"I agree with all the recommendations you've made in there. I'm confident that [] would support them. I think they would all have an impact. I particularly like the grounding in UNDRIP and use of that as benchmark for assessing progress. [...] I don't feel there are any clear omissions and the paper is very clear and quite compelling."

"I have reviewed the document and it is very comprehensive. Great job and I think there would be some very critical investment if focused on some of the key issues outlines in the paper."

"I am 100% in agreeance with this paper and the recommendations. I am really proud to be a party to the review of such a courageous paper that would assist in quality engagement and interaction with First Nations People of Australia in the Water debates. Having a voice in the decision making processes in planning, allocations, management and monitoring would afford First Nations Peoples' of Australia the basic rights to be involved."

Very well done and I convey a message of being available to support and advocate for these recommendations."

"The most important change required to transform First Peoples' water rights is to include both land and water rights within the Native title Act. This change to the Native title Act must provide the authority to veto any development which has a negative cumulative impact on freshwater living water systems, people and the right to a clean and healthy environment. Aboriginal people must become the competent cultural authority in the establishment of regional water authorities to be established to manage land, water and people in a sustainable way. Aboriginal water rights must be guaranteed within the Australian constitution as the right way to do good water governance in contemporary Australia."

"This is the obvious field where philanthropy can make a big difference. Traditional Owners can speak from an holistic perspective in plain English about the nature of the problem in a way that resonates with the public and individuals. Although there is some recent progress towards public funding for TO groups to participate, there is a critical lack of resources for them to be able to maintain a truly independent voice. Public funding will always be accompanied by demands to "work from within the system", when the public, and Aboriginal people especially, need the system to be fundamentally reformed."

"Currently there is a push in Northern Australia to develop the last great rivers of our nation in same way as we have over developed the MDB. The lessons learned in the previous investigation of the Northern Development Taskforce, is showing we are failing to use the evidence from the Taskforce to STOP seeing Northern Australia as the next food bowl. It is a finger bowl with very limited capacity for storage and highly influenced by climate change and irregular rain fall. We should not be investing in repeating the same mistakes/disasters of the MDB"

rather we should be having a common sense look at the current destruction of our farming lands by invasive mining and agricultural developments such as cotton and put a moratorium around our fragile remaining farm lands which are quickly disappearing legislate these lands for food security as no-go zones for destructive development. The consumption of water as the cost burden has shown in the MDB is too high for people, rivers and the animals and fish who rely on the wise management of our freshwater systems. The evidence coming out of this Royal Commission affirms we need better regional governance management of our precious land and water, so citizens in the region can determine what developments can proceed based on science and not politics for the greater good of big developers rather than for the rivers and living water systems in which we all have a fiduciary duty to protect and respect as we proceed into climate chaos.”

“Australia needs to follow and enact the precedence set by the Whanganui River in NZ to respect and legislate for the Right to Life of Australian Rivers. This needs to be a statutory act and fully resourced with Aboriginal people as the cultural authority working in partnership with all stakeholders to develop regional authorities with the inter-generational resources and the power to protect and manage these freshwater systems. This can be and must be fully legislated as Australian River Protection Acts.”

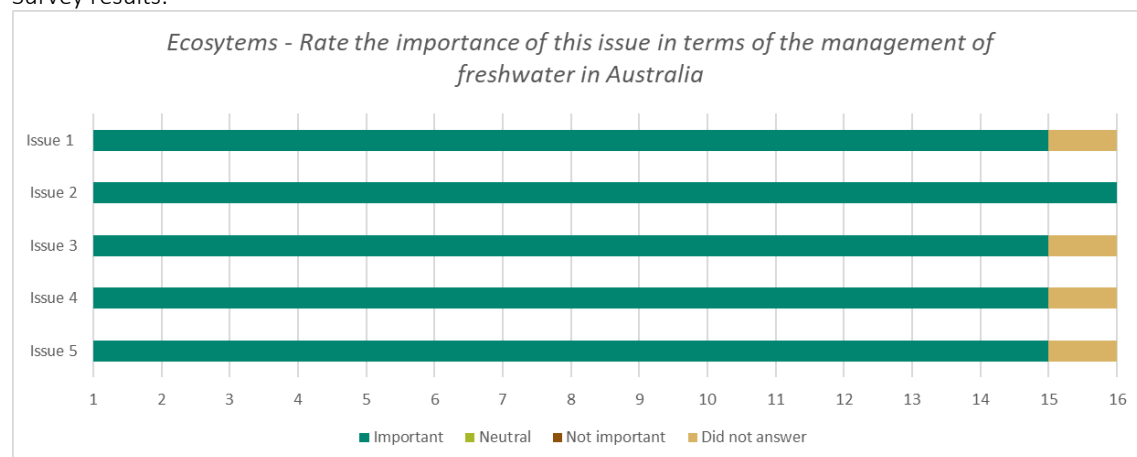
“You’ve summed it up. I agree with everything you’ve said. Thank you.”

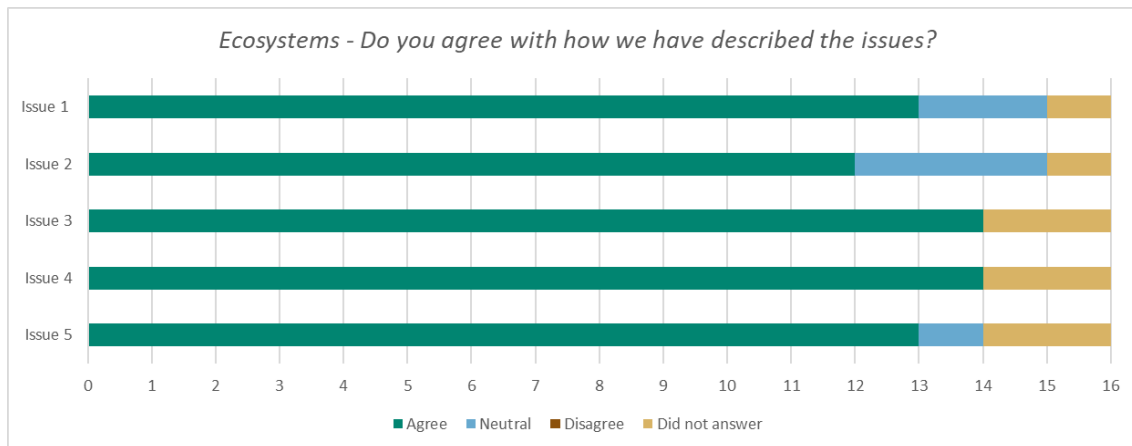
Ecosystems

Issues identified in paper:

1. Catchment management: Catchment modification has dehydrated freshwater ecosystems and reduced resilience
2. Stream flow management: Over-allocation of water resources and the regulation of rivers fundamentally changes the water regimes which support freshwater ecosystems
3. Waterway management: Altered habitats and infrastructure barriers are reducing ecological connectivity up and down rivers
4. Weed and pest management: Invasive weeds and pests have become established in and continue to colonise our freshwater ecosystems leading to loss, or threat of loss, of native species
5. Climate change adaption and management: Planning and enforcement is inadequate for a changing climate that magnifies pressures on freshwater ecosystems

Survey results:





Overall feedback notes - ecosystems paper:

"A major issue for freshwater science is that it has become increasingly captive to the demands of water managers to be applicable. Increasing the independence of the ARC, reducing the focus on industry-backed linkage grants and the freeing of academics to set research priorities rather than assess manager-developed "scenarios" are all critical to placing science in its rightful role. I'm not sure how philanthropy can really help here."

"This paper could benefit from further exploration of the issues surrounding floodplain constraints and floodplain harvesting. For example, opportunities which relate to improved monitoring of harvesting or working with farmers to reduce constraints. Flow constraints are physical barriers or policy actions which impede the delivery of water to floodplains and wetlands. They are among the most frequently cited challenges affecting the delivery of environmental water under the Basin Plan to date. They included operational constraints, channel capacity constraints, access to irrigation pumps, crop harvesting, maintenance work, even a water skiing event, cod fishing, and other third party impacts. Key constraint areas identified by the Murray-Darling Basin Authority were on the upper Murray River from Hume to Yarrawonga, mid-Murray River from Yarrawonga to Wakool Junction, Goulburn River, Murrumbidgee River, Lower Darling River, Gwydir River and on the lower Murray in South Australia. These constraints are preventing environmental water from passing across low-lying areas next to watercourses and in designated floodways below minor flood levels."

"I believe the paper could be strengthened not so much about the broad topics that have been addressed, but rather in their impacts. The five topics tend to be focussed around the flow, biota habitat nexus. This is the paradigm that has been underpinning the debate around water, particularly environmental flows, for the last several decades. While this approach is justified, because the only real entry the Commonwealth Government has into environmental matters under our Constitution is through the External Affairs powers - hence the importance of international treaties on birds and biodiversity underpinning federal legislation. Further, it is easier to 'sell' charismatic flora and fauna to the general public. However, such a focus has led to what are essentially mono-specific restoration targets. "

"The environment must come first. More needs to be done to explain why to the public. For example demonstrate how ecosystems will collapse and water quality will deteriorate to the point we do not have a viable agricultural industry or rivers that support recreational activity."

"Realisation that healthy waterways support prosperous communities - it is not mutually exclusive. People upstream need to care about those downstream (unlikely, unfortunately!) Need to show impact of evaporation too (e.g. Menindee Lakes) people can see water being let out of a lake but not go into the sky."

"a culture which does not regard the land and water resources as an exploitable money making resource but as a central part of national identity and purpose"

"If we do not help the economic model we have learn and adapt to a sustainable model where exploitation and European thinking is gradually understood to be bad for business, everything else is likely to work at the margins."

“Recognition of the problem and water as a public not private asset”

“Useful ecological knowledge to provide insights into how freshwater ecosystems actually work requires long term commitment of people and funding.

Perhaps provide at least some focus on a smaller scale. Its hard to contemplate fixing the MDB. Easier to think about restoring a local wetland.”

“need a champion like Peter Cullen”

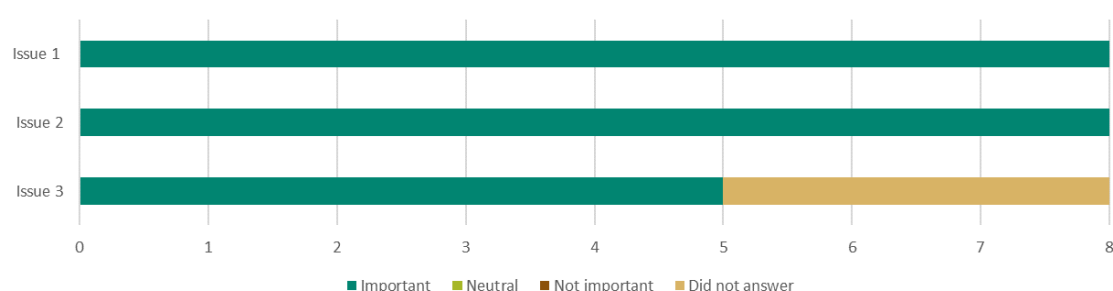
Economics paper

Issues identified:

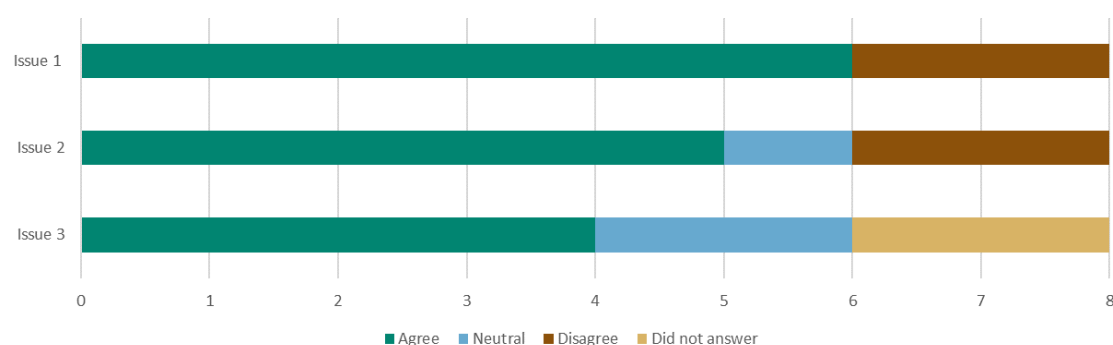
1. We do not properly account for, or adequately understand, the natural capital asset value of our freshwater systems. Government funding of water infrastructure has not always been justified on legitimate public good grounds, but instead driven by political expediency
2. Only government can ensure water markets deliver the environmental outcomes required to protect and restore the freshwater ecosystems of the Murray-Darling Basin
3. Regulatory, planning and investment frameworks for urban water constrain the full consideration of options, from stormwater reuse to scarcity pricing, necessary to provide our cities with a diversified and resilient portfolio of urban water services.

Survey results:

Economics - Rate the importance of this issue in terms of the management of freshwater in Australia



Economics - Do you agree with how we have described the issues?



Overall feedback notes – economics paper:

“There is endless literature about this problem and as yet, no one has cracked an effective way to have decision-makers accountable, let alone transparent. If the decisions and the information behind the decisions were transparent, the whole problem would go away.”

“... there are some fundamental points where the premise adopted for some of the conclusions is not supported by evidence. I have highlighted very briefly those points in this response and my response to the introductory paper. [] would welcome further engagement in this process.”

"The key thesis of the economic report is that the political process subverts the best laid plans of economists and water scientists and technologists, and that two possible solutions to this "problem" are to provide better information to politicians via a "think tank" mechanism and the aggregation of all information in a publicly available format. As a water scientist who was part of the Commonwealth Department of the Environment during the millennium drought period and an observer of many of the events then and now, I agree that these two interventions could help, but are by no means the "solution". The key elephant in the room for urban water policy, in particular, is the lack of knowledge and naivety about water management and supply issues (also common to the energy sector) by the general public. It is this lack of knowledge by the grassroots public that enables politics to so consistently override or else severely modify well-considered evidence-based scientific and economic argument. One only has to provide the following as examples:

(1) Why is the public willing to pay upwards of \$4/L for bottled water (noting that at the low end of the price scale this is largely demin water with added salts) and balk at having to pay a very small fraction of a cent for tap water.

(2) The water authority for the Gold Coast area of QLD (one of the fastest growing areas in Australia) was privatised a few years ago. On reviewing the system, the new owners correctly identified that a major investment was needed to bring existing infrastructure up to scratch and to provide new infrastructure for the rapidly expanding area. This would cost big\$ and the only way to finance this was to significantly increase the price of water. The ensuing outcry was such that the local council was essentially forced by the state government to reverse the privatisation process at the cost of many millions of \$, and to restore the previous unrealistically low pricing schedule.

(3) The last time that the use of water recycling for public drinking supplies was seriously being considered, the process was brought to an abrupt end by a public campaign whose very effective slogan was "you are treating us like lab rats". Mind you the scientific community did not help one little bit, with several scientists going on the public record as saying that unless the water was essentially molecularly pure (ie >99.999%!) then there was a possibility that people could be affected by micro-organisms and toxins. How can this be when the general public has no real issue with, by comparison, minimally treated water that has come from open reservoirs that receive all manner of microbiological inputs from their catchments? There isn't a public health crisis from using this water.

My contention is that Substantial investment needs to be made in developing educational materials that can be used to address the above, and effectively communicating this material so that the public itself becomes aware and responsible for the challenges that need to be addressed. If this was achieved then it would be so much more difficult for bad policy decisions to be made in the face of an informed public. Reasoned increases in water supply charges would stand a chance of being accepted, rather than outright rejected. This should be added as an area of likely very fertile investment for the philanthropic \$. "

"... I found the urban water section to be extremely frustrating, as it totally missed the major issue of public knowledge/education I raised above. There was a lot of discussion about the apparent superiority of the RDM method over the "traditional" approach for making investment decisions. However, when all is said and done both approaches are only as good as the assumptions that feed into them, and as such are equally as fallible. Both are also equally susceptible to political "adjustment". Whilst integrated water catchment management (capture and reuse) is the ideal that should be aimed for in new developments, I contend that trying to "retrofit" existing suburban areas with such systems would be absolutely fraught. One only has to look at the opposition to siting of any new "green" infrastructure, irrespective of what the public initially thinks it might like to see happen. The NIMBY syndrome is very much alive in this context. Unfortunately, that is why large centralised RO facilities located in previous "industrial" land, and plugging into the existing reticulation system, won the day at that time and would probably still win the day now. Once again this is an area that is fertile for public education and water technology leadership."

"Not just buyback associated with the MDBP, water trading is exposing the inherent economic weakness of irrigated dairying producing milk destined for manufactured dairy products, a high proportion of which has to be sold on export markets. While this would have once been a thesis topic I would have suggested to an able graduate student for detailed conceptual and empirical investigation, the short explanation is that GV dairying is competing with other dairy regions, including in Victoria, that don't have to support off-farm and on-farm

irrigation infrastructure. (There are further disadvantages with respect to labour costs.) Put another way, irrigated dairying falls between two stools; unlike annual crops that can easily be restricted in dry years and perennial horticulture where water costs are not a big part of the cost base. Note that no such industry exists anywhere else on the planet. Irrigated dairying in California, which the GV once compared itself with when cut and carry nutritional regimes were being promoted for GV dairy farms, is based on producing fresh milk for several major metropolises – an entirely separate economic miracle. It is already happening that the multi-named infrastructure project in the GV is heading for stranded asset status before its completion, something predicted by a well-known professional in the Victorian water industry, who is far more experienced and sensible than me. A fast train to Shepparton would have been a better deal for GV folk than space age irrigation infrastructure. “

“It’s useful to reiterate the distinction being made between economic costs (should be calculated after resources are re-allocated), and impacts. The community level analysis looked at impacts as a measure of the disruption to communities – it’s never been claimed to be economic costs.

We would support new innovative economic analysis of the full range of costs and benefits of buybacks versus infrastructure investments, including insights into the adjustment implications for local communities.”

“We have concerns about the criticism levelled at the buyback program because provided windfall gains to sellers. Creation of the cap and trade water market created property rights, and that provided many economic benefits for the sector, particularly through investment certainty.

The fact that the entitlements were grandfathered is an equity issue that’s unrelated to economic efficiency. Criticising the government for buying back entitlements to reduce over-allocation ignores how other approaches (e.g. compulsory acquisition) would have undermined property rights and introduced sovereign risk which is inconsistent with the underlying objectives of the National Water Initiative.”

“In terms of their recommended actions, a robust investment framework is good. We suggest a new think tank is unnecessary. Collaboration would be more beneficial and it would be more efficient to work under existing programs (e.g. an expanded NESP) that already provide the infrastructure to support collaboration between government, universities, private sector and NGOs. In this regard, we would invite the Potter and Myer Foundations to consider collaborative research arrangements with government agencies so that the results of the investment can more directly influence policy settings.”

“The [] does not see it as appropriate or accurate for the irrigation community to be singled-out as a beneficiary to unspecified reforms. In the interest of fact-based information, the [] requests this reference is deleted. The Productivity Commission (2019) found that “The size and speed of water purchases has had negative socioeconomic impacts on some regional communities” (Finding 3.3). Further, as previously mentioned, most irrigation farmers feel reforms focused on recovering water from agriculture to the environment, have not been to the benefit of irrigation farmers. [] does not believe, and rejects, that irrigation communities have received substantial benefits from reforms. [] is willing to meet with the consultants to provide further information on this.”

“... the strong influence of all interest groups should be acknowledged, and irrigation farming should not be singled out. The “earlier dominance of irrigation in Australia” has led to the growth of many communities which rely on water for their agricultural production, and thus livelihoods and income. The importance of water access to these communities is an important consideration in the triple-bottom- line objectives of water management, and thus should be considered this way, rather than the simplified claims of “interest groups”. Furthermore, the separation of land and water and the development of the water market was highly influenced by economists promoting market forces to direct water to “highest value use” regardless of location (distance from dams and higher conveyance losses) or crop type (higher value uses tend to be luxury rather than staple commodities).”

“The NWI was designed and not enough thought was put into the ecological impacts. It assumed that if you set up a market it would protect the environment. For example, is it always a good thing to move water to higher value uses. As a society we may not want this or its perverse impacts (eg. Move to cotton and almonds) as a society we haven’t had a conversation about this, about how much we might need to pay for milk for domestic consumption.

A perverse outcome is that people growing fodder can't compete with people growing almonds. Under the current market rules you can't limit what water will be used for. Even if they sold environmental water it wouldn't go to fodder. Important to have a conversation about the NWI and the transformations that marketisation of water will cause. Focus on water for export, driving out."

"... completely agrees with the infrastructure notes. No requirement for infrastructure investment there is no legal requirement that they DEMONSTRATE net gain. It is transfer of paper. MDBA can argue that licence=water, but if the water isn't in the river then the pool of environmental water is diminished. Capture of overland flows being paid for through infrastructure in northern basin – evidence that we get increased environmental flows is not clear. No release of data, no transparency so we don't know that it works. Government is sanctioning investment that is NOT SAVING WATER but is being used to capture overland flows.

Taxpayer money being spent on an issue of NATIONAL IMPORTANCE with no knowledge of what works and doesn't work."

"As indicated in the paper, one of the main limbs of water reform in Australia has been deepening of the capitalist economic paradigm (clearer trends to commodification of water rights, propertisation, unbundling etc). The other limb, intended to inter-relate, has been environmental water. Conceptually and practically, the latter paradigm conforms to the economic regime (eg environmental water-holder as another market player, responding to market failure etc).

This has all occurred in the actual context of a given political economy of water – dominance of large-scale irrigation and urban water supply (private commercial and bureaucratic interests) – and, as noted in the paper, economic reform has tended to entrench and enrich those interests.

There is a high degree of rent-seeking, which can coincide often with soft or grey corruption which can (and has) blurred into actual corruption/illegality.

The propensity to rent-seeking is not an aberration but rather an outcome, if not corollary, of the fact of water management being essentially governance of a public resource with a high degree of private, commercial, capitalist interest. Similar dynamics can be seen in other natural resource and environmental sectors, eg logging, environmental or development use rights, fisheries, especially those subject to capture by private actors. Historically, they can be seen in other sectors such as the handling of public revenues. Strict and high standards of governance, transparency, accountability and acknowledgment of the public interest have been important in the management of such common pool resources. Australia has historically not been good at imposing these conditions on natural resources governance, other than in a few examples, eg fisheries.

The market should be viewed as a mechanism of limited and instrumental value, subject to clear and authoritative public interest controls. "

"Philanthropic involvement in these issues may principally concern advocacy (redesign of water markets) but in some circumstances other novel interventions might be considered, such as independent citizen-led public inquiries, backed by large philanthropic and NGO actors, into particular matters of public concern (eg management of Barwon-Darling system)"

"A component which could strengthen this issues paper relates to improving research around the relationship between healthy rivers and improved regional economy. For example, how much additional productivity is obtained from returning additional water to a river? The value of quantifying the economic and productivity improvement resulting from healthier rivers and additional flows should be encouraged."

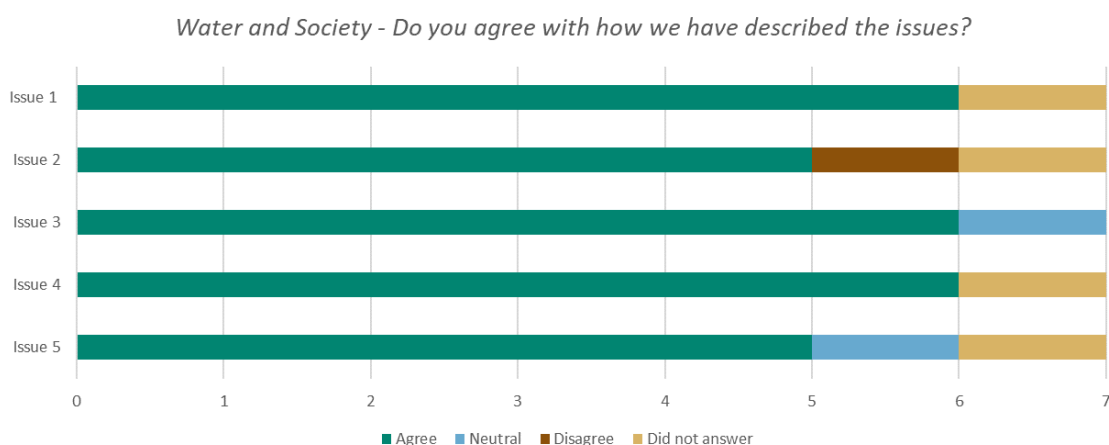
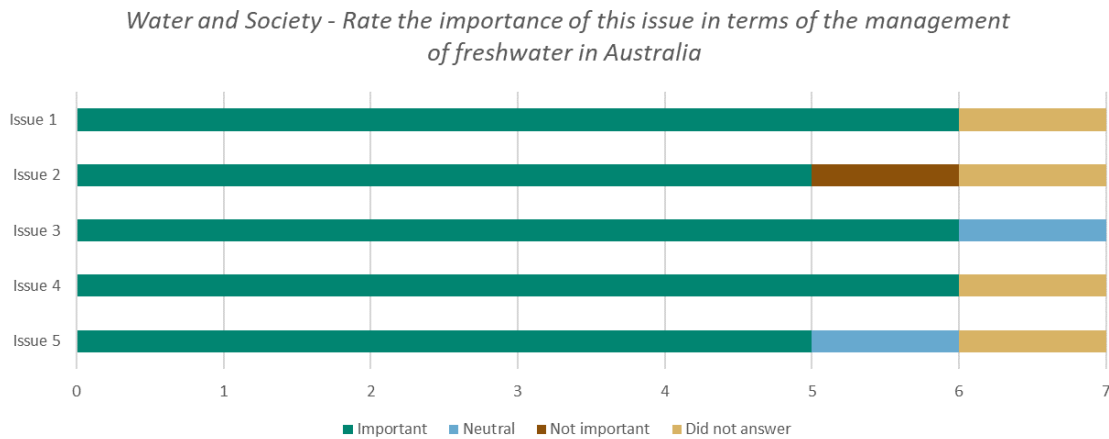
Water and Society

Issues identified:

1. Australian and global standards for potable water quality are not always met, particularly in remote areas
2. Providing water security for Australian cities and towns will be a challenge given population growth and a changing climate
3. Australian society has limited water literacy

4. Current approaches to stormwater planning and management are affecting the capacity to use these water resources to support liveable urban landscapes
5. Poor water quality reducing recreational and sporting opportunities and enjoyment and consequently our socio-economic health

Survey results:



Overall feedback – water and society paper:

“Recent fishkill near Menindee and elsewhere sparked outrage then the release of the SA Royal Commission report put the spotlight on the Lower Darling and Northern Basin. These events generated enormous social media interest and a lot of the comment was wildly inaccurate. So water literacy needs to be nurtured and embedded in society.”

“In general, given the focus of our [] work on advocacy, I would emphasise the importance of third party partnerships (eg NGOs, communities, philanthropic) in not only backing work with direct practical outcomes on the ground (in a more effective and ‘nimble’ manner than government) but taking leadership roles in demonstrating positive, public interest outcomes and gains are possible – and preferable – which in turn can embolden progressive elements within industry and government to act. This is useful in alliance-building. In short, there are theories of change than can and should be factored into philanthropic action, if these have not been considered explicitly already.”

“Balancing supply and demand for the major capital cities will be the most important issue given the overwhelming dominance of these population centres. Second is the balancing in regional centres away from the coast that will likely be more stresses by climate change and not have the luxury of additional supply provided by desalination”

“Australia has abundant water resources. there are more than enough for meeting the demands of cities and town now and in the future. It is really a question of both professional and infrastructure investments. Integrated solutions for cities should be planned and trialled but the scarcity problem is one of talent and leadership not physical water. water can and should be reallocated from irrigation to urban use where economic and feasible to do so”

“Unless concentrated effort is made to raise community awareness of their own reliance, on the environment and the delicate ecological systems, our flora, fauna , etc - all of which need a fair share of our freshwater resources to survive, let alone thrive il-logical short-term Governments will never be 'encouraged' to create and enforce sustainable policies.”

“the value of water for recreation should not be taken for granted and needs greater recognition”

“There needs to be greater focus, as well as understanding of the social, well-being values of our waterways. Sadly each passing generation since settlement has witnessed a deterioration in water-contact recreational activity, fish and platypus numbers etc, Many rivers have become drains or upside down irrigation channels with little native fish values.”

Attachment 4: One-on-one consultation list

General discussions with project team and with Ian Potter Foundation and The Myer Foundation:

- Dr Jane Doolan, Productivity Commissioner (former National Water Commissioner)
- Professor Gene Likens, advisor to two governors in New York State and one in New Hampshire, as well as one US President. Founding Director and President Emeritus, Cary Institute of Ecosystem Studies
- Dr Alistair Watson, Adjunct Professor, Centre for Water Policy and Management, La Trobe University (formerly ABARES and University of Melbourne)
- Rachel Lowry, Chief Conservation Officer, WWF
- Stuart Orr, International Practice Lead, Water, WWF
- Terry Moran, AC, former Secretary, Department of Prime Minister and Cabinet
- Professor John Daley, CEO, Grattan Institute
- Professor John Thwaites, Chair, Monash Sustainable Development Institute, ClimateWorks Australia and Melbourne Water
- Anna Skarbek, CEO, ClimateWorks
- Steve Whan, CEO, National Irrigators Council
- Kelly O'Shanassy, CEO, Australian Conservation Foundation
- Paul Sinclair, Director of Campaigns, Australian Conservation Foundation
- Anna-Maria Arabia, CEO, Australian Academy of Science
- Rachel Walmsley, CEO, EDONSW
- Dr Emma Carmody, Senior Policy and Law Reform Solicitor, EDONSW
- Amanda Martin, CEO, Australian Environmental Grantmakers Network
- Ester Abram, Giving Green Advisor, Australian Environmental Grantmakers Network
- Professor Helene Marsh, FAA, FTSE, former Chair, Australian Threatened Species Scientific Committee (reporting to the Commonwealth Minister for the Environment)
- Professor Mark Kennard, Australian Rivers Institute, Griffith University
- Dr Mandy Freund, Postdoctoral Research Fellow, CSIRO
- A/Prof Ian Rutherford, University of Melbourne (formerly Director of River Health, Office of Water, Victoria)
- Mr Jason Alexandra, Alexandra & Associates

Indigenous:

- Ricky Archer, CEO, Northern Australian Indigenous Land and Sea Management Alliance (NAILSMA), Ricky is a Djungan man from the Western Tablelands region of North QLD
- Phil Duncan, Macquarie University, Phil is a Gomeroi man and elected representative of the Gomeroi Nation, former Chair of the First Peoples Water Engagement Council
- Dr Anne Poelina, Deputy Chair Walalakoo (Native Title Body Corporate), Interim Chair Martuwarra Fitzroy River Council, Managing Director Madjulla Inc., Anne is a Nyikina Warwa woman from the Mardoowarra, Lower Fitzroy River, in Western Australia
- Rene Woods, Chairperson, Murray Lower-Darling Indigenous Nations (MLDRIN), Vice Chair, Nari Nari Tribal Council, Rene is a Nari Nari man from South West NSW
- Robyn Grey-Gardner, private consultant
- Miya Isherwood, Torres Strait Regional Authority
- Bruce Lindsay, Environmental Justice Australia
- Julie Melbourne, Nyamba Buru Yawuru Ltd
- Will Mooney, Murray Lower-Darling Indigenous Nations (MLDRIN), Will also reviewed an earlier draft of the paper
- Katherine Taylor, Australian National University

Expert panel for the project:

- Jack Archer, Regional Australia Institute
- Dr Robert Argent, General Manager, Water, Bureau of Meteorology
- Professor Stuart Bunn, Director, Australian Rivers Institute, Griffith University

- Chris Chesterfield, CRC for Water Sensitive Cities
- Dr Guy Fitzhardinge, cattle grazier, Northern Australian Indigenous Land and Sea Management Alliance (NAILSMA), World Wildlife Fund (WWF)
- Professor Lee Godden, FASSA, Director, Centre for Resources, Energy and Environmental Law, University of Melbourne
- Professor Quentin Grafton, FASSA, Director of the Centre for Water Economics, Environment and Policy at the Crawford School of Public Policy, Australian National University
- Professor Sue Jackson, Australian Rivers Institute, Griffith University
- Dr Anne Jensen, Healthy Rivers Ambassador for MDB
- A/Professor Darla Hatton MacDonald, University of Tasmania
- Bradley Moggridge, the University of Canberra, Brad is a Kamilaroi man from the lower end of the Great Artesian Basin in North West NSW
- Professor Craig Simmons, FTSE, Director of the National Centre for Groundwater Research and Training, Flinders University
- Professor Rob Vertessy, FTSE, Global Change Advisory and Enterprise Professor (Water), School of Engineering, University of Melbourne (former Chief of Land and Water, CSIRO and CEO, Bureau of Meteorology)
- Professor Sarah Wheeler, Associate Director of Research, Centre for Global Food and Resources, University of Adelaide