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National Water Reform 2020
Productivity Commission
Locked Bag 2,
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VICTORIA 8003

Email: water.reform.2020@pc.gov.au

Date: 21st August 2020

Dear Sir or Madam,

Re: Submission to Productivity Commission's 2020 inquiry into progress with reforming the management of Australia's water resources

WWF-Australia welcomes this opportunity to provide the following comments and recommendations to the Productivity Commission's latest inquiry into progress with reforming the management of Australia's water resources as agreed to by the Australian, State and Territory Governments under the National Water Initiative (NWI).

Please note that our comments in this submission are predominately focused on the implementation the NWI in Queensland.

Response to information requests

1. Assessing jurisdictional progress

Progress the current Queensland Government has made towards achieving NWI objectives and outcomes include:

- Reinstating sustainability objectives in the *Water Act 2000* that had been removed from the Act by the former Newman led LNP Government,
- introducing provisions into the *Water Act 2000* requiring the Minister to consider the water-related effects of climate change on water availability when preparing a water plan,
- Introducing provisions into the *Water Act 2000* requiring the Minister to consider the interests of Aboriginal and Torres Strait Islander peoples when preparing a water plan and,
- Significantly strengthening environmental objectives and outcomes in second generation water plans

NWI objectives and outcomes the current Queensland Government is either making slow progress on achieving or is moving away from includes:

- Since the end of the Millennium Drought, progress towards achieving urban water reform as required under the NWI has effectively stalled in Queensland,
- As it's investing taxpayer funds in new dams that are not economically viable, the Queensland Government is failing to comply with requirements under paragraph 66 (v) of the NWI (examples below) and,
- As it's investing taxpayer funds in dams that cause adverse environmental impacts that can't be mitigated, the QLD Government is failing to comply with obligations under paragraph 69 of the NWI to ensure that new water infrastructure is ecologically sustainable

2. Adequacy of NWI to meet current and emerging challenges

While the existing NWI objectives and outcomes remain relevant to addressing current and emerging water related issues, its lack of statutory power hampers the NWI's ability to drive Governments to change the way the water resources are managed and used in order to fully address current challenges and tackle emerging issues such as the effects of climate change on water availability going into the future. As it's not statutory, governments can effectively ignore their obligations under the NWI.

3. Future reform direction

Recommendations for the future direction of the NWI includes:

- The creation of stand-alone legislation to provide the NWI with statutory powers
- The creation of an independent entity to administer proposed NWI legislation
- As it hasn't yet occurred, ensure the resource industry is brought under the NWI
- Inclusion of measures to address the causes of adverse impacts to water quality
- Increased action to prepare for less water availability caused by climate change
- As they are likely to become more common in the future, ensure the NWI applies to the owners of privately funded water infrastructure

4. Key issues

4.1 Effectiveness of water plans to manage drought

Under the *Water Act 2000,* the effects of drought are managed by the announced allocation system which provides licenced water users with a percentage of their full entitlement depending on how much water is available.

While the announced allocation system applies to licenced water users, it does not apply to non-licenced water users, which includes using water for stock and domestic purposes, the take and interference of groundwater by the coal and gas industries and for prescribed activities under schedule 3 of the Water Regulation 2016[1].

As the provisions in the *Water Act 2000* to manage the effects of drought do not apply to non-licenced water users, the effects of reduced water availability caused by drought are being unfairly shouldered by licenced water users throughout Queensland.

4.2. Application of NWI principles

Currently NWI principles are not uniformly or consistently applied in Queensland, examples include:

- The NWI is not applied to the take and interference of groundwater by the coal and gas industries,
- As they will not be economically viable, the NWI is not being applied to several new dams and,
- Reforming Queensland's urban water supply in accordance with the NWI has effectively stalled since the end of the millennium drought

4.3 Planning for climate change

Other than the requirement for the Minister to consider the effects of climate change on water availability under s45 (2) (g) of the *Water Act 2000,* planning for the effects of climate change on Queensland's water resources does not currently occur under any other Queensland legislation. For example, the Coordinator-General is not required to consider the effects of climate change on the economic and environmental performance of proposed dams when assessing them under the State Development and Public Works Organisation Act 1971.

As planning for climate change is not occurring across whole of government, Queensland's urban and rural water supply systems are extremely vulnerable to the long term effects of climate change.

[1] https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2016-0216

5. Water markets and trading

Under the NWI, mechanisms used to recover water to improve environmental outcomes should be undertaken 'primarily on the basis of cost-effectiveness, and with a view to managing socio-economic impacts'.

In 2017, the Productivity Commission found that recovering water for environmental purposes had not been undertaken on a cost-effective basis. From our analysis, little has changed since 2017.

By far the most cost effective way to recovering water for the environment is buying water from willing sellers through a voluntary open tender process. Along with being the cheapest, buying water from willing sellers is also the most efficient and transparent way to recover water for the environment under the Basin Plan. The public money saved by using this approach to recovering water for environmental purposes could then be used to assist affected communities adjust to reduced water availability.

The socio-economic issues associated with water recovery have been independently reviewed through a large number of studies and reports. For example, a report modelling variants of the Murray-Darling Basin Plan in the context of adverse conditions in the Basin found that water buybacks would result in economic stimulus[2] . In addition, Professor Sarah Wheeler's work[3] on using water markets to acquire environmental water found "this approach distributes the costs of transition over a longer period and has the potential to generate several benefits, such as incremental structural adjustment, increased flexibility, enhanced environmental flows, increased irrigator willingness to participate and increased cost-efficiency in some circumstances.

6. Environmental water management

6.1 *Are environmental outcomes specified clearly enough in water plans to guide management actions, monitoring and accountability?*

Response: As they are substantially more robust and tangible that what was included in first generation plans, there is a considerable improvement in the measurability of environmental outcomes and objectives that are being included in second generation water plans across Queensland.

[2] Wittwer,G. March 2020. Modelling variants of the Murray-Darling Basin Plan in the context of adverse conditions in the Basin

[3] https://www.sciencedirect.com/science/article/abs/pii/S0264837712000658.

Due to increased measurability, transparency about whether water plans actual deliver intended environmental objectives and outcomes has also substantially improved under second generation water plans.

6.2 *Are institutional and administrative settings effective in supporting these outcomes? Do environmental water managers have the necessary authority, resources and tools to achieve agreed outcomes?*

Response: As the responsible agency, the Department of Natural Resources, Mines and Energy's (DNRME) ability to effectively manage environmental water has substantially improved as a result of the data acquisition, reformed policies settings and new administrative arrangements which the current Queensland Government has initiated.

As it has been a low priority of past governments, DNRME does not currently have a strong internal culture or capacity to ensure water users are compliant with their obligations under relevant legislation. In recognition of this, the current Queensland Government is strengthening DNRMEs compliance capacity

6.3 *Is environmental water management (including planning for use of held water, delivery of held water, use of markets and compliance with planned environmental water) sufficiently integrated with complementary natural resource planning and management frameworks?*

Response: As they are managed by different government and non-government agencies, there is only superficial coordination between the different entities responsible for delivery of natural resource management programs and the management of environmental water

6.4 *Can environmental outcomes be more cost-effectively achieved with greater and more innovative use of water markets and market-like mechanisms?*

Response: See response to information request 5 above

6.5 *Is the monitoring and assessment of environmental outcomes sufficient?*

Response: With having acquired improved data and scientific knowledge, DNRME's ability to monitor and assess whether environmental are being achieved in some water plan areas has greatly increased. However, due to poor data and knowledge gaps, DNRMEs ability to determine whether environmental outcomes in other water plan areas are being achieved is poor.

6.6 *How effective has adaptive management and planning decision-making been during the recent drought?*

Response: As it's not occurring across whole of government and that urban water reform has effectively stalled, current planning and decision making regarding the management of drought is not commensurate with the high level of risk that potentially increasing frequency and severity of droughts poses to Queensland's urban and rural water supply systems.

6.7 *Do environmental water managers maximise opportunities to achieve social or cultural outcomes alongside environmental watering? How could this be improved?*

Response: Under s45 (2) (b) of the *Water Act 2000,* the Minister is required to consider the environmental values established under the *Environmental Protection (Water and Wetlands Biodiversity) Policy 2019*[4] (EPP Water). Environmental values (EVs) under the EPP Water includes the recreational, visual amenity and cultural values of water. Although the Minister is required to consider EVs established under the EPP Water when preparing a water plan, there is currently no requirement for the Minister to demonstrate how a water plan supports maintaining and improving EVs. This situation could be improved by amending s45 (2) (b) of the *Water Act 2000* to include the requirement for the Minister to demonstrate how a water plan maintains and improves the social and other EVs established under the EPP Water for the water plan area.

7. Indigenous water use

As mentioned above, the current Queensland Government has introduced specific provisions in to the *Water Act 2000* that require the Minister to consider the interests of Aboriginal and Torres Strait Islander peoples when preparing a water plan. A key example is the Cape York Water Plan[5], which provides 485, 300 ML of water to support First Nation peoples economic development aspirations on Cape York.

While water allocations to support First Nation people's economic aspirations are now being included in Queensland water plans, only minimal progress has been made to ensure sufficient water is provided in water plans to maintain cultural values associated with freshwater ecosystems and species.

[4] https://www.legislation.qld.gov.au/view/pdf/inforce/current/sl-2019-0156

[5] https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0005/1448546/cape-york-water-management-protocol.pdf

8. Water services

No comment

9. Best practice pricing for regional providers

No comment

10. Safe and reliable water supply

Due to their age, many of Queensland's large dams must be upgraded at considerable expense in order to conform with new national dam safety standards.

In its recent Rural Irrigation Price Review report[6], the Queensland Competition Authority (QCA) recommended that dam safety upgrade capex:

- be treated as a normal cost of operation in supplying water services to users and,
- be allocated to water users unless there is a clear and justifiable basis for allocating some of the costs to other parties

As most non-urban dams are not economically viable due to irrigators inability or unwillingness to pay the price for water needed to recover lower bound costs, requiring rural water users to pay for dam safety upgrades is likely to result in many non-urban dams across Queensland becoming even more economically unviable.

Along with effecting the economic viability of existing dams, allocating dam safety upgrade costs to rural water users will also effect the economic viability of proposed new dams that are currently being assessed in Queensland and across the country. As they are currently not included, it is essential that future safety upgrade costs are incorporated into business cases and feasibility studies to ensure that new dams are economically viable before they are approved in accordance with paragraph 69 of the NWI.

11. Urban water

As experienced in South East Queensland during the millennium drought, reduced water availability due to climate change is an increasing risk to the reliability of traditional urban water supplies across Australia.

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6 https://www.qca.org.au/wp-content/uploads/2020/02/irrigation-price-review-final-report-part-a-overview-final.pdf

To ensure the nations urban water supplies are resilient to climate change, urban water reform must be immediately accelerated to drive greater uptake of innovative urban water supply options and practices such as:

- Reducing demand by introducing per capita water use reduction targets,
- Adopting storm-water harvesting and water sensitive urban design (WSUD) for all greenfield urban development,
- Introducing water use efficiency standards for new residential and commercial buildings,
- Introducing wastewater recycling in all major urban areas and,
- Increased public education and awareness programs

12. Investment in new water infrastructure

Under the NWI, the Queensland Government has committed to achieve lower bound pricing for all rural water supply systems (paragraph 66) and to ensure that proposals for investment in new or refurbished water infrastructure are economically viable and ecologically sustainable prior to the investment occurring (paragraph 69).

Despite this obligation, the Queensland Government has invested a substantial amount of public funds in new water infrastructure that is both economically unviable and ecologically unsustainable. Key examples includes:

1. Lower Fitzroy River Infrastructure Project (Rookwood Weir) in Queensland

Using a base demand scenario of 30,000 ML of high priority water for industrial purposes, 4,000 ML of high priority water for urban purposes and 42,000 ML of high priority water (converted to 23,200 ML of medium priority water) to support new agricultural development, Building Queensland (BQ) in the Detailed Business Case (DBC)[7] it prepared determined that even with a 'best estimate' of 1.5% annual growth rate, Rookwood Weir has a negative net present value and a benefit cost ratio (BCR) of 0.6 at a real discount rate of 7%. To ensure they are economically viable, new water infrastructure must have a BCR of at last 1.0.

The key economic benefit potentially derived from Rookwood Weir is the increased value of agricultural production, which BQ estimates to be almost 50% of the quantified benefits of the project.

[7] https://buildingqueensland.qld.gov.au/wp-content/uploads/2018/01/LFRIP-detailed-business-case.pdf

However due to fluctuating global commodity prices, likely increased farm operating costs and a range of other contributing factors, BQ states in the DBC there is a high degree of uncertainty regarding the actual economic benefit derived from the agricultural development facilitated by the construction of Rookwood Weir. As it's estimated to provide almost 50% of the quantified benefits of the project, there is a considerable risk that Rookwood Weir will be economically unviable if the predicted agricultural development does not materialize or demand for water from the weir for agriculture reduces at any point in the future. Despite the high degree of uncertainty regarding its economic viability, both the Australian and Queensland Governments have committed to provide an equal share of the estimated $352 million cost to construct the weir.

In April 2020, the Queensland Government released a Statement of Proposals[8] (SoP) to amend the allocations for Rookwood Weir held under the Fitzroy Basin Water Plan. Proposed changes to the existing allocations for Rookwood Weir includes reducing the volume of high priority water for industrial purposes from 30,000 ML to 16,500 ML, increasing the volume of high priority water for urban development from 4,000 ML to 4,500 ML and increasing the volume of medium priority water for agriculture from 23, 200 ML to either 43,000 ML, 44,000 ML or 52,000 ML depending on which option is selected.

Given the high degree of uncertainty about whether using 23, 200 ML of medium priority water from the weir for agriculture will actual deliver economic benefits, substantially increasing the volume of medium priority water for agriculture as proposed in the SoP will significantly increase the uncertainty about whether new agriculture development facilitated by Rookwood Weir will deliver any actual economic benefits.

As Rookwood Weir is unlikely to be economically viable under either the existing or proposed amended allocations, it strongly appears that both the Australia and Queensland Governments have ignored their obligations under paragraph 69 of the NWI to ensure that new water infrastructure is economically viable before committing public funds to build Rookwood Weir.

Given that its unlikely to be economically viable, there is a significant risk that Rookwood Weir will become an economic and environmental disaster similar to Paradise Dam on the Burnett River.

[8] https://www.dnrme.qld.gov.au/__data/assets/pdf_file/0003/1480152/fitzroy-basin-rookwood-statement-proposals.pdf

2. National Water Infrastructure Development Fund (NWIDF)

Under its eligibility criteria, at least 50% of water provided by new dams that receive funding from the capital component of the NWIDF must be allocated to agriculture.

Due to most agricultural water users either being unable or unwilling to pay the price for water required to recover lower bound costs, there is a significant risk that new water infrastructure which is built primarily for agricultural purposes will not be economically viable.

As the primary purpose of the 24 water infrastructure projects across the country that have been funded under the capital component of the NWIDF[9] is to support agricultural development, the Australian Government which has provided the funds and State Governments that have received funds to build new water infrastructure have failed to comply with their obligations under paragraph 66 (v) and 69 of the NWI.

Conclusion

While the current Queensland Government has made significant progress towards achieving many NWI outcomes, that it's providing and receiving public funds to build water infrastructure which is unlikely to be economically viable clearly shows the Queensland Government is not meeting all of its obligations under the NWI.

Please do not hesitate to contact me should you require further information or clarification regarding any of the matters raised in this submission.

Yours sincerely,

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WWF-Australia

[9] https://www.nationalwatergrid.gov.au/nwi-development-fund/water-infrastructure-projects