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SUBMISSION

Productivity Commission Review of National Water Reform

Draft Report

March 2021

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NSW Irrigators' Council

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigation farmers and the irrigation farming industry in NSW.

Through our members, NSWIC represents over 12,000 water access licence holders in NSW who access regulated, unregulated and groundwater systems. NSWIC has member organisations in every inland river valley of NSW, and multiple coastal valleys. Our members include valley water user associations, food and fibre groups, irrigation corporations and commodity groups from the rice, cotton and horticultural industries.

NSWIC engages in advocacy and policy development on behalf of the irrigation farming sector. As an apolitical entity, the Council provides advice to all stakeholders and decision makers.

NSWIC welcomes this opportunity to provide a submission on the Productivity Commission Draft Report assessing the progress of the Australian, State and Territory governments towards achieving the objectives and outcomes of the National Water Initiative (NWI). NSWIC see this as a valuable opportunity to provide expertise from our membership. Each member reserves the right to independent policy on issues that directly relate to their areas of operation, expertise or any other issues that they deem relevant.

NSW Irrigation Farming

Irrigation farmers in Australia are recognised as world leaders in water efficiency. For example, according to the Australian Government Department of Agriculture, Water and the Environment:

> "*Australian cotton growers are now recognised as the most water-use efficient in the world and three times more efficient than the global average*"[1]

> *"The Australian rice industry leads the world in water use efficiency. From paddock to plate, Australian grown rice uses 50% less water than the global average."*[2]

Our water management legislation prioritises all other users before agriculture (critical human needs, stock and domestic, and the environment), meaning our industry only has water access when all other needs are satisfied. Our industry supports and respects this order of prioritisation. Many common crops we produce are annual/seasonal crops that can be grown in wet years, and not grown in dry periods, in tune with Australia's variable climate.

Irrigation farming in Australia is also subject to strict regulations to ensure sustainable and responsible water use. This includes all extractions being capped at a sustainable level, a hierarchy of water access priorities, and strict measurement requirements.

[1] https://www.agriculture.gov.au/ag-farm-food/crops/cotton
[2] https://www.agriculture.gov.au/ag-farm-food/crops/rice

NSW Irrigators' Council's Guiding Principles

Integrity	Leadership	Evidence	Collaboration
Environmental health and sustainable resource access is integral to a successful irrigation industry.	Irrigation farmers in NSW and Australia are world leaders in water-efficient production with high ethical and environmental standards.	Evidence-based policy is essential. Research must be on-going, and include review mechanisms, to ensure the best-available data can inform best-practice policy through adaptive processes.	Irrigation farmers are stewards of tremendous knowledge in water management, and extensive consultation is needed to utilise this knowledge.
Water property rights (including accessibility, reliability and their fundamental characteristics) must be protected regardless of ownership.	Developing leadership will strengthen the sector and ensure competitiveness globally.	Innovation is fostered through research and development.	Government and industry must work together to ensure communication is informative, timely, and accessible.
Certainty and stability is fundamental for all water users.	Industry has zero tolerance for water theft.	Decision-making must ensure no negative unmitigated third-party impacts, including understanding cumulative and socio-economic impacts.	Irrigation farmers respect the prioritisation of water in the allocation framework.
All water (agricultural, environmental, cultural and industrial) must be measured, and used efficiently and effectively.			Collaboration with indigenous nations improves water management.

Introduction

NSWIC welcomes the Productivity Commission's (PC) Draft Report assessing the progress of the Australian, State and Territory governments towards achieving the objectives and outcomes of the National Water Initiative (NWI).

This submission focuses specifically on the Information Request contained in the Draft Report:

> *"The Commission seeks feedback on suitable triggers for rebalancing environmental and consumptive shares in the context of climate change. What are the advantages and disadvantages of the different approaches? How could continuous adjustment be implemented in practice? Are there any other potential triggers that could be used?"*

NSWIC is deeply concerned by the proposition that climate change requires a need to 'rebalance' environmental and consumptive uses, as this completely misunderstands the system of water management in NSW. The consumptive share of water is **automatically adjusted** on an ongoing basis to changing water availability. This occurs through water allocations, based on Available Water Determinations (AWDs), which allocate a certain share to consumptive users based on how much water is available, after all other uses have been allocated (as per the hierarchy outlined in state legislation). If there is little or no water available, such as during extreme drought conditions, consumptive water users have 0% water allocations and entitlements are effectively switched off. Rebalancing' shares of water by reducing the number of entitlements will not make more water available during these dry periods, nor would it make more water available to the higher priority users as they are allocated first. Consequently, NSWIC rejects the suggestion that 'rebalancing' is required with climate change, if appropriate rules and allocation systems are in place.

NSWIC also wishes to highlight the reform fatigue facing communities, as has been highlighted through many inquiries, such as the recent *Independent Assessment into Social and Economic Conditions in the Basin*. It should be a principle of the NWI moving forward that water management systems should provide stability, certainty and predictability. This should be prioritised in systems which have undergone significant reform. Whilst the past 20 years have seen significant reforms in areas such as the Murray-Darling Basin, this should be considered as a pivotal point of revolution, rather than a status quo that water management is always in flux. Communities are struggling to keep up with the pace of change, and grappling to understand constantly changing new systems of management.

NSWIC also wishes to raise that NSW has <u>not</u> adopted the NWI pricing principles of user-pays. Alternatively, NSW continues to adopt the highly contentious 'impactor-pays' principle which leaves irrigators paying a disproportionate amount of costs for public interest items. There is a significant and urgent need in NSW to develop ways to finance public interest water management activities and infrastructure that reflects the broad public interest in sustainable and accountable water management, as well as the cost drivers of climate change.

This submission will detail these 3 core elements. Whilst all elements of the Draft Report are relevant and considered important to the irrigation industry in NSW, we wish to note that the industry is currently amidst a significant period of reform and consultations[3], and thus are unable to provide detailed feedback on all elements of the Draft Report. NSWIC looks forward to providing further feedback through the public consultation period.

[3] Current major items include, for example: floodplain harvesting licensing rules in Water Sharing Plans, Regional Water Strategies, IPART Pricing Determinations, ACCC water markets inquiry, Water Resource Plan finalisation, metering reform rollout etc.

Overview

Climate Change

- Irrigators are first and hardest hit by reducing water availability from climate change, given water allocation systems automatically respond to changing water availability, by only providing a share of available water to consumptive users once other needs have been met.
- 'Rebalancing' shares of water is commonly understood among anti-irrigation and environmental stakeholders as reducing the water available to irrigated agriculture. This is not the answer to reduced inflows through climate change. 'Rebalancing' shares of water in this way should not be required in response to climate change if sound systems of water allocation and priority of use are in place (such as in NSW), which automatically reduce the share of water to consumptive users to reflect water availability and critical higher priority needs. NSWIC recommend changing the language of 'rebalancing consumptive and environmental shares' in the Draft Report, to instead focus on providing transparent and predictable systems of allocating water based on water availability and priority of use.
- Rules to ensure critical needs are met during and following extreme dry periods (first flush arrangements) provide a transparent and predictable approach, without requiring permanent 'rebalancing' which impacts every year.
- With significant reductions to inflows over the past 20 years, community expectations of achieving the rivers experienced in the previous century are likely unattainable. Whilst it may be confronting, realistically, the only feasible option is managing for the rivers of the present and future, not the past, given changing patterns of inflows.

Pricing

- NSW has not implemented the NWI principles of Best Practice Water Pricing, specifically the principles of user-pays, and this results in perverse pricing outcomes with irrigators funding infrastructure and public interest water management services such as environmental water management and fishways.
- A new cost-sharing framework for setting prices is required that appropriately recovers costs for public interest items, and reflects the source of demand originating beyond immediate water users given public interest and social expectations of water management.

Stability

- Communities are experiencing water reform fatigue, and whilst adaptive management is important, the revolutionary reform agenda of the recent decade creates instability and uncertainty for communities.
- It should be a principle of the NWI moving forward that water management systems should provide stability, certainty and predictability.

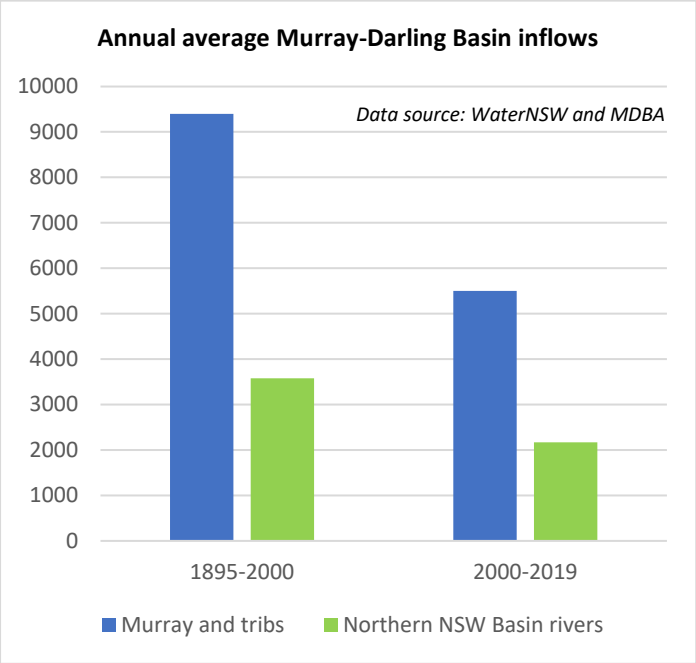
Submission

Climate Change

Australia's irrigated agricultural sector leads the world for water efficiency and adaptability.[4] Few other countries could continue to feed and clothe themselves, much less export food and fibre to the world, throughout our cycles of extreme droughts, floods, fires, and dust storms.

More than 90% of Australia's fruit, nuts and grapes; more 76% of vegetables; 100% of rice and more than 50% of dairy and sugar, came from irrigation in 2018-19, even as severe drought conditions were setting in across Australia's irrigation food bowl in the Murray-Darling Basin.

Our sector is also playing an increasingly important role working with scientists and water managers to keep rivers healthy and bring endangered species such as bitterns back from the brink through co-beneficial irrigation practices.



But irrigation farmers are on the agricultural frontline bearing the brunt of climate change. The warming drying trend of the last 20 years has highlighted to threat to our food bowls and the wellbeing of country towns relying on irrigated agriculture for jobs and economic activity.

The warming drying trend over the last 20 years has seen inflows into rivers across the Murray-Darling Basin almost halve.

This trend is consistent with climate change forecasts for longer, hotter droughts interspersed with more intense but relatively short-lived rainfall events.

Under the NSW Water Management Act 2000, available water is allocated in a strict hierarchy (detailed in Box 1), and summarised as:

- Town supply
- Environment
- Stock
- Irrigators

This means irrigators are the first to have the tap turned off when conditions turn dry. The warming drying trend means even less water is now available for irrigation after meeting other priorities first.

For example, NSW Murray General Security licence holders were allocated, on average, 81% of their licence volume before the Millennium Drought. Their licence reliability is now around

[4] For example, according to the Australian Government Department of Agriculture, Water and the Environment: *"Australian cotton growers are now recognised as the most water-use efficient in the world and three times more efficient than the global average"*. See: https://www.agriculture.gov.au/ag-farm-food/crops/cotton
"The Australian rice industry leads the world in water use efficiency. From paddock to plate, Australian grown rice uses 50% less water than the global average". See: https://www.agriculture.gov.au/ag-farm-food/crops/rice

48%. In the Namoi valley in the northern Basin, General Security reliability has similarly declined from 77% to around 39%.

Reduced allocations compound the water scarcity already created when more than 20 per cent of irrigation licences were bought back under the Basin Plan. Less water in the productive pool drives up water prices on the market and reduces the capacity of farmers to make a return.

Irrigators are not compensated for the loss of water from climate change. Under the Water Act 2007, Sch 3A, irrigators bear the full risk of any reductions or less reliable water allocations as a result of "seasonal or long-term changes in climate" and "periodic natural events such as bushfire and drought".

Box 1: [60] Rules of distribution applicable to making of available water determinations

(a) first priority is to be given to—

(i) the taking of water for domestic purposes by persons exercising basic landholder rights, and

(ii) the taking of water for domestic purposes or essential town services authorised by an access licence,

(b) second priority is to be given to the needs of the environment,

(c) third priority is to be given to—

(i) the taking of water for stock purposes by persons exercising basic landholder rights, and

(ii) in the case of regulated rivers, the taking of water for purposes (other than domestic purposes) authorised by a regulated river (high security) access licence, and

(iii) the taking of water for the purposes of supply of commercial and industrial activities authorised by a major utility access licence or local water utility access licence, subject to the water made available being in accordance with any drought management strategy established by the Minister for that purpose, and

(iv) the taking of water for the purposes of electricity generation authorised by a major utility access licence, and

(v) the taking of water for purposes authorised by a domestic and stock access licence or by persons exercising any other water rights in relation to stock, and

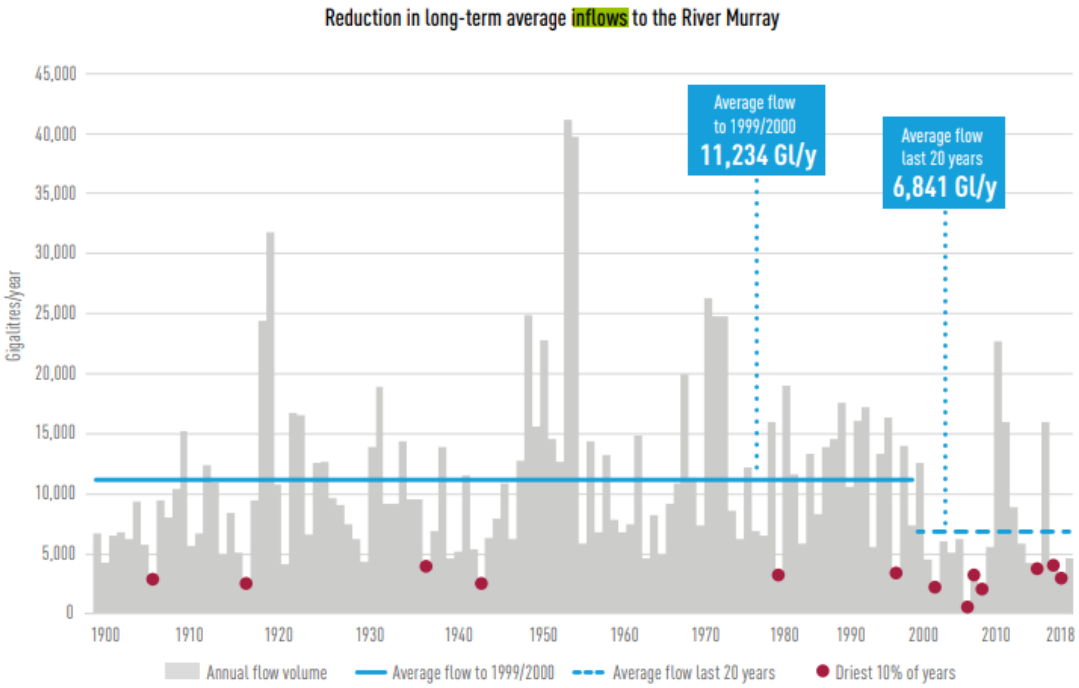
(vi) the taking of water for purposes authorised by a conveyance access licence in connection with the supply of water for any other purpose or need referred to in this paragraph,

(d) fourth priority is to be given to the taking of water for purposes authorised by any other category or subcategory of access licence.

Declining licence reliability also means less water for the environment

Declining licence reliability is not just a problem for irrigators. The environment now owns about 28% of all water licences in the southern Basin, to help boost existing river flows. These licences retain the same characteristics as if still owned by irrigators. If irrigators are allocated less, then so is the environment.

For example, the environment owns 481 billion litres, or 29%, of NSW Murray General Security licences. It can expect to get, on average, 48% of 481 billion litres a year, compared with the historical 81%.



What's the way forward?

Climate change is frequently used to justify changing water sharing arrangements at national, basin and state levels. These changes are highly likely to overreach and tend to try to 'drought-proof' the environment at the expense of productive water users.

The blunt instrument of licence buybacks in particular is not an answer. Since irrigators' entitlements are already switched off during dry periods, purchasing licences will not deliver any more water for the environment or critical needs during those times, either. **It will only drive towns and communities out of business in wetter years for a diminishing return to the environment.**

For this reason, NSWIC strongly rejects the language around 'rebalancing' consumptive and environmental water shares in the Draft Report. 'Rebalancing' shares of water is commonly understood among anti-irrigation and environmental stakeholders as reducing the water available to irrigated agriculture. This is not the answer to reduced inflows through climate change. Alternatively, NSWIC recommends that states have systems and processes in place (as NSW currently does) to allocate available water to a priority order of needs, which thus automatically incorporates fluctuating water availability.

Additionally, there needs to be a frank and honest conversation about what rivers of the future under a climate change scenario will look like. With such significant declines in inflows, it may not be possible to manage for the rivers of the past century (which were characterised by significantly higher inflows) into this century and beyond. Setting an expectation that it is possible to continue to have rivers of the past century, despite significantly changed inflow patterns, will lead to disappointment and only fuel frustrations, whilst having significant adverse impacts to water users and communities in the pursuit. It must be acknowledged that there are significant hydrological, geomorphological and physical limitations on river management in Australia, which distinguishes our river systems from others globally.

Specific rules designed to ensure the hierarchy of critical needs can be met provide opportunity to respond to climate change without the blunt instrument of 'rebalancing'. An example is the

NSW Resumption of Flow Rule introduced in July 2020 to protect first flows after an extended low flow or dry period in the Barwon-Darling system.[5]

The rule was activated for the first time in mid-January 2021 when irrigation extraction around Bourke was suspended for 12 days until WaterNSW forecast at least 400ML/day would reach Wilcannia 600 kilometres away. In the event, more than 1000 ML/day flowed past Wilcannia from 1 – 10 February.

In practice, irrigators coming out of a three-year drought contributed a significant portion of their licensed water to replenish the Barwon-Darling River and town supplies downstream, with no compensation. This of course had significant social and economic impacts and impeded drought recovery in the region. Nonetheless, our sector broadly supports this and other rules to improve connectivity for critical human and environmental needs during first flush events of this kind, within the hydrological limitations of the river. Whilst these rules do pose significant social and economic impacts as a result of the forgone water access, they provide certainty and predictability to both upstream water users (i.e. when access can resume), and certainty to downstream communities and environments that priority needs are being met.

Finding:
Irrigators are first and hardest hit by reducing water availability from climate change, given water allocation systems only provide a share of available water once other needs have been met.

Recommendation:
'Rebalancing' shares of water should not be required if sound systems of water allocation and priority of use are in place (such as in NSW), which automatically reduce the share of water to consumptive uses to reflect water availability and critical higher priority needs.

Rules to ensure critical needs are met during and following extreme dry periods (e.g. first flushes) provide a transparent and predictable approach, without requiring permanent 'rebalancing' which impacts every year. [6]

Pricing

Under the NWI *Best Practice Water Pricing and Institutional Arrangements:*

"*64. The Parties agree to implement water pricing and institutional arrangements which:*

… iv) give effect to the principles of user-pays and achieve pricing transparency in respect of water storage and delivery in irrigation systems and cost recovery for water planning and management;

v) avoid perverse or unintended pricing outcomes; and…"

However, NSW continues to reject the NWI user-pays principle, and instead adopts an "impactor-pays" principle. This means extractive water users (i.e. mostly irrigators) pay a disproportionately high share of costs, including for public interest items such as

[5] https://vimeo.com/432756001
[6] More information: https://www.nswic.org.au/wordpress/wp-content/uploads/2020/06/2020-06-07-NSWIC-Submission-Independent-Assessment-of-the-Northern-Basin-First-Flush.pdf

environmental water management, water quantity monitoring, fish passage, water strategies, and infrastructure. This leads to very perverse outcomes for productive water users in NSW.

This principle is based on an overly simplified counterfactual of pre-development conditions, that would inevitably lead to assigning costs to water users. The reality is water management activities are necessarily required for human civilisation (with or without irrigation) – and particularly in our society that values the sound management of water resources and health of river systems. Items such as water quantity monitoring, for example, have proven critically important in recent times for flood management and emergency service operations – despite being funded by water users.

In NSW, cost-sharing arrangements are based on a 80:20 cost-share ratio for capital expenditure (80% share for water users), and 100:0 for operating expenditure (100% share for water users). This means productive water users carry a significant burden of water management costs.

Many of the recent and current demands for new or improved services come from outside of the water user base, yet under the current cost-share ratio, water users are having to pay to meet the demands of non-water users. It is evident in recent media that the general public places great importance and value on water systems, regardless of whether they have any direct relationship to the system (i.e. as a water user). Many of the recent changes to water management have been to meet growing expectations of the general public, and for water services to meet their demands, not necessarily the demands of water users. The cost-sharing framework must be reflective of the source of the demand or expectations, so that those demanding increased services cover the appropriate costs.

If an 'impactor pays' principle continues, NSWIC believe that now the largest 'impactor' on waterways is climate change, and many of the services and new infrastructure is a result of preparing towns and river systems to be resilient to a drying climate. It would be almost impossible, however, to develop a funding model based around this 'impactor' (unless from general revenue), and thus a reconsideration of the impactor-pays principle in NSW is required. NSWIC has concerns of the long-term sustainability of this funding model, given modelling predicts decreasing reliability of water entitlements and thus decreasing financial yields of water users. As one example, in the draft Lachlan Regional Water Strategy, it states "*general security users in the Lachlan could experience… a 60% decrease under long-term climate change projections*" . This trend of decreasing reliability/yields of water entitlements from decreased water supply, but growing demand for water management services and infrastructure to manage decreased water availability, is not compatible with the current cost-sharing ratio.

Finding:
NSW has not implemented the NWI principles of Best Practice Water Pricing, specifically the principles of user-pays, and this results in perverse pricing outcomes with irrigators funding public interest water management services and infrastructure.

Recommendation:
A new cost-sharing framework for setting prices is required that appropriately recovers costs for public interest items, and reflects the source of demand originating beyond immediate water users given public interest and social expectations of water management.

Stability

A principle of best-practice water management must be providing stability, certainty, predictability and transparency in the rules and management arrangements. Whilst adaptive management is important to continue incorporating new knowledge and learnings, the current pace of significant reforms (particularly in the Murray-Darling Basin) creates instability and uncertainty for communities, removing confidence and trust. As highlighted in *the Independent Assessment into Social and Economic Conditions in the Basin* communities are experiencing reform-fatigue, consultation-fatigue and are struggling to keep pace with the persistent and ongoing reforms.

Finding:
Communities are experiencing water reform fatigue, and whilst adaptive management is important, the revolutionary reform agenda of the recent decade creates instability and uncertainty for communities.

Recommendation:
It should be a principle of the National Water Initiative moving forward that water management systems should provide stability, certainty and predictability.

Conclusion

NSWIC and our members are available at your convenience, if you have any questions or would like any further information. Our staff, delegates and representatives look forward to participating in the public hearing.

NSWIC reiterate the positions provided in our initial submission to the PC review of national water reform.

Kind regards,

NSW Irrigators' Council.