

One Basin CRC Written Statement for the Public Hearing of the Senate Inquiry into the Water Amendment (Restoring Our Rivers) Bill 2023

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About the One Basin CRC: Commencing in mid 2022, the 10-year One Basin CRC research partnership includes more than 80 partners working together to grow value from water in a changing world. Partners include agricultural organisations and industry bodies, local government, state and federal government water agencies including MDBA, regional natural resource management organisations, irrigation infrastructure operators, technology companies, advisory organisations across the water and agriculture sectors and research agencies. We are developing technological, social and financial solutions to establish Australia's irrigation basins as the most productive, resilient and sustainable in the world. The CRC is focussed on collaboratively developing solutions for real world impact.

Local partnerships and decision-making

Statement: Implementation of new supply measures and the program to recover 450GL additional environmental water should be delivered through local partnerships and support local decision-making.

The design and implementation of the Water Act and Basin Plan amendments to deliver the Basin Plan, is expected to be more successful if there are genuine opportunities for local partnership and decision-making. This applies to any new supply measures allowed under the basin plan amendments and also new measures for additional environmental water recovery. We highlight three benefits of this local engagement:

- Consistent with the principle of subsidiarity, engaging local agency in tackling the basin plan challenges maximises scope for selecting effective and enduring measures. This is particularly relevant in water management where local context can have a strong influence on the efficacy of approaches.
- Strong local partnerships and leadership in developing water management measures builds local ownership and trust. This is expected to reduce friction in implementing the Basin Plan and build trust between government and local communities. This is important with the expectation of on-going pressures on basin water management with climate change, the need for inclusion of the interest of First Nations people within water management and changing patterns of water demand from irrigated agriculture.
- Increasing the agency of local people in designing local measures is also expected to have genuine wellbeing benefits. Water is central to the economy, environment and social fabric of all basin communities. Increasing local agency is likely to reduce the

negative wellbeing impacts of top-down imposed solutions, such as community frustration, depression and departure.

Importantly, local engagement and leadership in delivering Basin Plan measures should include representation of different interests including those of First Nations People, the environment, irrigators, and the broader community. Partnerships across these different interests are emerging in some irrigation regions with a focus on tackling regional water challenges. These partnerships could be further strengthened through engagement in planning local measures to be delivered under the Basin Plan.

The One Basin CRC is working on opportunities for improved water management with local stakeholders across the Murray-Darling Basin. We are experiencing a strong commitment to partnership across diverse stakeholders with different interests. Some of the opportunities under development by the One Basin CRC partnership have good potential to contribute to supply measures and additional environmental water targets given sufficient time.

A purpose-driven approach

Statement: There is an opportunity to strengthen the focus on outcomes in the basin plan

Whilst there are broad environmental objectives expressed within the Basin Plan, success is measured by the volume of water recovered for the environment and resulting compliance with sustainable diversion limits. The linkage between environmental water recovery volumes and success in achieving the environmental purpose (or outcome) is assumed. The many other hydrological and ecological influences on the basin's environmental condition are neglected by the Basin Plan's primary focus on sustainable diversion limits and water recovery volumes.

An advantage of volumetric targets is that they provide a clear basis for reporting progress towards Basin Plan completion. However, they discount opportunities for innovation and adaptation in achieving the plan's environmental purpose. They may also lead to a focus on achieving water recovery at any costs, regardless of any contribution to environmental outcomes.

There may be opportunities to strengthen a purpose-orientation in the timescale of the current Basin Plan. One potential opportunity is for the proposed amendments to the Basin Plan to allow for application of "volumetric equivalence" in evaluating progress towards the 450GL/year targeted for enhanced environmental outcomes. The concept of equivalence is intended to reflect the environmental utility of a particular intervention. In its simplest form, this concept could be applied to different held environmental water entitlements. An entitlement held in a dam upstream of significant environmental assets may have greater environmental utility than entitlements within an unregulated river or with little opportunity for these to be delivered to high value environmental sites. This difference in environmental utility could be expressed using the concept of volumetric equivalence, weighting entitlements with greater utility with a greater volumetric equivalence.

This concept of volumetric equivalence could be extended to include hydrological measures which are demonstrated to deliver on the environmental purpose of the Basin Plan but do not result in held environmental water. Examples include restrictions in water diversion licenses that lead to increased environmental flows, or environmental covenants and options on irrigation water entitlements that provide for water allocations to be delivered for environmental purpose under agreed conditions (see below).

A wholesale shift to a purpose-oriented Basin Plan with specified outcomes but flexibility in the means of achieving these outcomes would be a significant undertaking well-beyond the timeframe of the current Basin Plan timeline. A longer-term perspective is required for such a transformation in basin planning. Research is needed to develop and test the necessary elements for this approach including: new measures for evaluation of progress towards outcome targets and governance arrangements to support innovation but hold participants to account for delivery of outcomes. Research initiatives such as the One Basin CRC, the CSIRO Missions Program and the Murray–Darling Water and Environment Research Program could be tasked with developing and testing the necessary elements, in parallel with delivery of the current Basin Plan, so these are ready for implementation in the future.

Flexibility in selecting measures for additional environmental water

Statement: There appears to be a restricted scope of options allowed for delivery of the Basin Plan under the current proposed Water Amendment Bill.

The “What We Heard Report” synthesises the submissions made during the “Delivering the Murray-Darling Basin Plan – Consultation”. The report listed a great number of ideas that might contribute to the Basin Plan water recovery targets but would require policy, program or legislative change. It is not clear how these ideas have informed the proposed Water Amendment Bill. It seems likely that the new Held Environmental Water mechanism proposed in the Water Amendment Bill to deliver additional environmental water, excludes many ideas proposed in the “What We Heard Report”. We suggest that the proposed amendment is reviewed to ensure it is not restrictive.

We highlight one water market measure as worthy of particular attention to ensure it is eligible under the proposed Water Amendment Bill. There is potential to use contracts with water entitlement holders for options to secure water allocation for environmental use in the future. This is an approach to water recovery which has support from irrigators¹, has undergone a preliminary proof-of-concept study², and industry evaluation suggests it may be cheaper than buy-back of entitlements³. However, this approach to water recovery may not be eligible under the current draft amendment because it does not involve the transfer of a water entitlement to the commonwealth environmental water holder. This would appear to be a missed opportunity.

¹ Submission #71 by the National Irrigators Council to the “Delivering the Murray-Darling Basin Plan – Consultation”

² The River Reach Water Trading Scheme was a National Project within the Water Smart Australia Program <https://www.dcceew.gov.au/water/policy/programs/completed/water-smart#national>

³ <https://www.waterfind.com.au/products-services/water-futures-efficiency-program-2/>

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