

Productivity Commission Inquiry – National Water Reform

Background and context

The Commonwealth Environmental Water Holder (CEWH) is established under the *Water Act 2007* to manage the Commonwealth's environmental water holdings to protect and restore environmental assets of the Murray-Darling Basin.

The CEWH is governed by the requirements of the *Water Act 2007*, including managing the Commonwealth environmental water holdings in accordance with the Murray-Darling Basin environmental water plan (Chapter 8 of the Basin Plan). The Basin Plan requires the CEWH to perform its functions and exercise its powers in a way that is consistent with the Basin-wide environmental watering strategy while also having regard to the Basin annual environmental watering priorities. In addition, the CEWH must comply with other relevant Commonwealth legislation, including the *Public Governance, Performance and Accountability Act 2013* and the *Environment Protection and Biodiversity Conservation Act 1999*.

Broadly, the CEWH has broad portfolio management options available in managing the Commonwealth environmental water holdings:

- 'use' of the water in a river or wetland;
- carrying over water for use in the following year (carryover); and
- trading water - selling water and using the proceeds to buy water in another catchment or in a future year, or to invest in environmental activities.

The Commonwealth's environmental water holdings are a large public asset worth over \$3 billion and the effective management of this asset relies on the implementation of the National Water Initiative (NWI), as well as the implementation of a broader range of related water reforms.

Progress of the NWI principles

A lot has been achieved since the NWI was agreed and its core principles are as relevant today as they were in 2004. We would welcome the opportunity to discuss these issues in more detail with the Productivity Commission.

This submission to the Productivity Commission inquiry into implementation of the NWI provides an initial summary of progress and the work of the CEWH.

Institutional frameworks and water services

Commonwealth environmental water is managed through state regulatory and entitlement frameworks that apply to all types of water holders. These frameworks and the services they provide to water holders were designed to meet the needs of consumptive users, primarily for irrigation water supply. Inefficient and complex state regulatory and river managements systems continue to present challenges for environmental water managers, which gives rise to tensions and the potential for compromised environment outcomes. While these issues are being addressed through existing governance arrangements it continues to represent an inefficiency. As such there remains an opportunity for gradual reform to improve the regulatory and entitlement frameworks to accommodate the management of environmental water.

The CEWH is actively engaged in discussions relating to pricing and delivery approaches taken by the jurisdictions. Consistent with the NWI principles, there is a need to ensure non-discriminatory treatment (in water pricing and regulation) of the CEWH, noting the Commonwealth owns irrigation entitlements.

Institutional arrangements – Roles and responsibilities

Water resource management occurs in a complex operating environment across a range of jurisdictional responsibilities. Productive working relationships built on respect for roles and responsibilities are critical to supporting the effective and efficient management of environmental water. There is a continuing need to ensure there is clarity of roles, responsibilities and accountabilities to support the working relationships between parties involved in managing environmental water.

The CEWH works closely with relevant state agencies to provide environmental water to priority environmental assets and functions to achieve the objectives of the Basin Plan. The CEWH has been established to deliver Basin-wide outcomes and provide the ability to deliver on-ground outcomes across jurisdictional boundaries in the national interest.

The CEWH actively plans for and manages its water portfolio with an emphasis on matching the available water (supply) with identified environmental needs (demands). The CEWH works closely with the states, regional NRM bodies and private land managers, who are responsible for the management of environmental assets to determine which priority environmental demands need to be met.

The states, particularly NSW and Victoria, also have environmental water holders focused on delivering environmental outcomes in their jurisdiction. The CEWH works collaboratively with state environmental water holders (including The Living Murray initiative) to ensure environmental water is used in a complementary manner to achieve optimal environmental outcomes on a Basin scale.

As the Basin Plan moves from development to full implementation post-2019, there is a need to ensure effective engagement at the Commonwealth level and as such a greater clarity and distinction of roles will be required – between policy and funding; operational planning and implementation; and regulatory, audit and compliance roles.

At present there is inconsistent engagement of NRM bodies in environmental water across the Basin. While involvement should be fit for purpose, an increased and more direct level of regional NRM agency involvement in environmental watering would not only improve local engagement but also lead to improved integrated land and water management outcomes.

Property rights

The Water Reforms have facilitated the separation of land and water property rights. This reform allows environmental water holders to own water entitlements and to manage these entitlements to achieve environmental outcomes.

The Basin Plan assumes that these property rights will be protected, including no 3rd party impacts through the behaviour of others – this includes water managed for irrigation and the environment. The Basin Plan also assumed that a number of policy mechanisms would be in place to protect

water property rights while maximising environmental outcomes and avoiding 3rd party impacts. This includes:

- the capacity to protect environmental water from extraction or re-use environmental water at multiple sites (shepherding and crediting of return flows); and
- the capacity to deliver environmental water on top of other in-stream flows (piggybacking on unregulated flows).

The CEWH works within existing parameters to meet its statutory requirements, however in the absence of a working resolution of measures at the state level to protect environmental water there remain limits to the effective use of environmental water and risks to the CEWH's capacity to fulfil mandated environmental targets. It is important that these policy issues are addressed and that the CEWH receives non-discriminatory treatment in this process.

Through the CEWH's good neighbour approach (see below), there is an inherent commitment to avoid 3rd party impacts, however under current arrangements the management of environmental water has the potential to generate unintended 3rd party benefits. For example, if environmental water is allowed to be extracted by consumptive users as it passes from one resource unit to another, it essentially represents a significant 3rd party windfall gain in enhanced reliability at the expense of the tax payer. Prior to their acquisition, entitlements now in the Commonwealth's environmental water holdings were owned by consumptive users and this water would not have been available for extraction by others.

Measures to better protect and re-use environmental water are necessary to realise the full asset value of Commonwealth environmental water and the significant investment of public funds. Most states are yet to put these measures in place, and while there are complex policy and technical issues, it remains critical to the success of environmental watering and the Basin Plan reforms that these issues are addressed as far as possible.

Water trading

The CEWH has participated in three monetary trades to date – the sale of water allocations in the Gwydir (January 2014), the Peel (March 2014) and the Goulburn (November 2015). To date, the CEWH has been subject to the same state rules and restrictions as other entitlement holders participating in the market. While trade restrictions have not yet impacted the CEWH's decisions in this regard, there has yet to be a regular and routine trading of Commonwealth environmental water. As the CEWH has capacity to impact the market due to size of holdings, decisions made to trade are given careful consideration (see 'good neighbour' approach below) and consistent with the trading rules set out in the *Water Act 2007*, the Basin Plan and the CEWH's own Water Trading Framework.

Non-monetary trade mechanisms are used to facilitate water transfers between water resource areas, primarily in the Southern Basin. Trade restrictions, put in place to address environmental and socio-economic impacts of consumptive water transfers are emerging as a limiting factor in the management of environmental water use. For instance, the trade restrictions through the Barmah Choke, which were designed to prevent detrimental flooding of the Barmah – Millewa Forest also limit the early delivery of held environmental water. There is a need for longer-term policy solutions to ensure that these unintended policy barriers do not constrain the ability to achieve environmental outcomes while balancing social and economic impacts.

Avoiding third-party impacts – the ‘good neighbour’ approach

While the CEWH’s primary focus is on achieving, monitoring and reporting environmental outcomes the CEWH also has a responsibility to minimise risks to communities while undertaking its activities. As a member of the Basin community, the CEWH is committed to being a ‘good neighbour’. Operating effectively in a working river system where much of Australia’s food and fibre is produced requires that the management of environmental water must co-exist with agricultural production in a mutually respectful and harmonious manner.

The good neighbour approach is based on practices that guide the management of Commonwealth environmental water. It aims to promote mutually beneficial relationships with other water users and landholders, but always in a way that is consistent with the CEWH’s statutory obligations. The central principle of the approach is to ‘first, do no harm’. A precautionary, risk-averse approach is taken to managing environmental water, so that there is no material impairment of the interests of landholders, other entitlement holders and water users.

All decisions are informed by comprehensive risk assessments, which draw on previous results captured through effective monitoring activities or market conditions. The CEWH has not and will not place water orders that would flood private land, without the consent of the landholder. River operators cannot deliver environmental flows above the operational limits that apply to all water deliveries, including irrigation orders. If potentially unacceptable impacts on private property are identified, we will negotiate with affected landholders to avoid or minimise any potential problems and obtain consent to watering events.

Water knowledge

Environmental watering has been undertaken in the Basin for decades—some of the earliest actions occurred in the Macquarie Marshes in the 1980s. This history of practice has been complemented by a significant body of research, which underpins environmental watering activities and decision-making. However, compared to other natural resource management activities, environmental watering is relatively new particularly at the scales occurring under the Basin Plan. As such, there remains a continuing need to invest in environmental water research and knowledge.

The CEWH is investing \$10 million over 5 years in the Murray-Darling Basin Environmental Water Knowledge and Research project. The project aims to improve our understanding and predicative capacity of how environmental water contributes to medium and long-term changes in the environmental health of the Basin

Given the maturity of environmental watering ‘best practice’ reflects continual improvement through adaptive management. In this context, best practice guidelines for environmental water management would be best developed by environmental watering practitioners iteratively as the experience grows.

Achieving Indigenous objectives

The CEWH currently undertakes a range of Indigenous engagement activities to help further their engagement in environmental water planning processes. Local aboriginal communities hold valuable knowledge on the environmental and cultural values of water dependent assets in the Basin, which if used appropriately could help significantly improve environmental outcomes and

contribute to a range of additional cultural and social outcomes. The Basin Plan also encourages environmental water managers to have regard to Indigenous values to maximise the benefits and effectiveness of environmental watering.

The CEWH has engaged with a number of Indigenous communities across the Basin to further this understanding of Indigenous values in environmental watering, including:

Starting the conversation - Organised a journey along the Macquarie River with Ngiyampaa-Wayilwan elders and community members and representatives of the CEWH and NSW Government to build a stronger understanding of Indigenous cultural values in the Macquarie Marshes.

Sharing knowledge - Provide funding and participation in the National Cultural Flows Research Project. The project aims to provide rigorous and defensible knowledge on Indigenous water interests for the benefit of Indigenous people. We are also exploring opportunities for the development of watering seasonal calendars

Working Together - Working with a number of Aboriginal Nation representative groups to provide water for Aboriginal environmental outcomes (e.g. Nari Nari Tribal Council at Toogimbie IPA; Tar-Ru Lands Board of Management; the Ngarrindjeri Regional Authority).

There remain opportunities to further the engagement and involvement of Aboriginal communities at a local level to deliver Commonwealth environmental water which supports cultural values and activities, while still providing environmental benefits.

Ancillary benefits of environmental watering

Benefits to other water users from delivery of environmental water

Environmental water is often delivered in response to natural triggers, such as naturally occurring flow events in response to rainfall, to better reflect seasonally appropriate flow regimes. This can result in environmental water not being delivered during times of high irrigation deliveries, with benefits from this for irrigation and other water users including:

- reduce competition for channel capacity during periods of peak agricultural demands.
- reduce water losses in the system under standard river operations, resulting in improvements in state water resource shares
- increase the free space in dams available to capture inflows, in-turn potentially increasing the availability of water for other water users.

While there are issues raised, and addressed through pricing regulators, which relate to the fair costs in managing water resource and river management systems to be borne by environmental water holders, insufficient acknowledgement or credit is given to the 3rd party benefits which accrue to all users from an effective and locally responsive management of environmental water.

Trading environmental water

While the trading of Commonwealth environmental water must be undertaken for environmental purposes, it can also provide benefits to other market participants. For example, in January 2014, 10 GL of Commonwealth environmental water allocations were sold in the Gwydir catchment of

northern NSW at a time when the needs of the environment had largely been met and there was strong demand for water from irrigators.

Water quality

Salinity in the River Murray has real and measurable economic costs. Managing salinity is important to all water users and ensures that water is suitable for drinking, agriculture, recreation and the environment.

The long-term salinity target for the River Murray has been set at less than 800 EC (electrical conductivity units) for 95 per cent of the time measured at the town of Morgan in South Australia. In 2010, the salinity target was met for the first time and in all subsequent years since the target has been met. The additional environmental water provided under the Basin Plan to date has directly contributed to these improved salinity outcomes.

Benefits for recreational activities

Commonwealth environmental water supports recreational fishing by supporting the breeding, migration, condition and survival of native fish in the Basin. Environmental watering is also being used to improve the vegetation on surrounding riverbanks, providing overall amenity values.

Delivery of Commonwealth environmental water has also been timed to avoid disruption to important social events, such as fishing events in the Goulburn and Murray that occur around the opening of the Murray cod fishing season and require more stable water levels. Such adjustments are made without compromising the achievement of environmental outcomes and reflect the CEWH's 'good neighbour' approach.

Ecological objectives and monitoring

Monitoring and evaluation is critical to the management of Commonwealth environmental water – to support the efficient and effective use of resources, ensure accountability and promote transparency, support adaptive management and help build knowledge. The outcomes of monitoring and evaluation are essential for the CEWH and other environmental water managers' ability to demonstrate the environment return on what is a significant public investment.

The CEWH is funding a \$30 million Long Term Intervention Monitoring Project. Monitoring teams, led by Australia's leading research institutions have been contracted to develop and implement detailed 5-year monitoring and evaluation plans for seven selected regions within the Basin. Locally based land and water managers are closely involved in the implementation of these monitoring and evaluation plans.

It is important that there is ongoing investment in monitoring and evaluation of the outcomes of environmental water to ensure responsible entities can account for their management of large public assets but also to inform adaptive management and continual improvement of implementation and policy to deliver on a sustainable healthy working Basin.