Commonwealth Environmental Water Holder

Submission to the Productivity Commission's Murray-Darling Basin Plan: Five-year assessment

Purpose

This document comprises the Commonwealth Environmental Water Holder (CEWH) submission in response to the Productivity Commission's March 2018 Issue Paper titled *Murray-Darling Basin Plan: Five-year assessment*.

The submission provides an introduction to the CEWH followed by commentary on the matters raised in the Productivity Commission's Issues Paper, where they are relevant to the CEWH, in the order that they are discussed in the Issues Paper.

About the Commonwealth Environmental Water Holder

The CEWH is a statutory position established under the *Water Act 2007* (Water Act) responsible for managing the Commonwealth environmental water holdings. The Commonwealth environmental water holdings must be managed to protect and restore the environmental assets of Murray-Darling Basin (the Basin), including rivers, lakes, wetlands and floodplains.

The CEWH's function and the environmental water holdings are a critical part of the sustainable management of the Basin's water resources over the long-term for environmental, social and economic outcomes. Ecological monitoring is indicating that we are achieving real results from the strategic use of environmental water. Commonwealth water is contributing towards a range of environmental objectives including:

- providing river flows that support improved water quality for the environment and water users
- connecting rivers to floodplains to maintain food chains and support fish movement
- filling wetlands that support native fish, birds and other native animals
- supporting the recovery of the environment following the drought, and building resilience in preparation for the next drought.

The CEWH is governed by the requirements of the Water Act and the Basin Plan 2012 (the Basin Plan) environmental watering plan (Chapter 8). 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 2014* and have regard to the Basin annual environmental watering priorities developed by the Murray-Darling Basin Authority (MDBA). In addition, the CEWH must comply with other relevant state and Commonwealth policy, frameworks and environmental legislation, including the *Public Governance, Performance and Accountability Act 2013* (PGPA Act) and the *Environment Protection and Biodiversity Conservation Act 1999*.

Ms Jody Swirepik is the CEWH. She is supported by staff of the Commonwealth Environmental Water Office (CEWO). The CEWO employs six full-time local engagement officers[1] who live and work in regional centres across the Basin.

[1] http://www.environment.gov.au/water/cewo/local-engagement

Key elements required to implement the Basin Plan

All the elements of the Basin Plan are needed to support the plan's multiple objectives: environmental, social and economic.

Sustainable Diversion Limits and Adjustments

Sustainable Diversion Limit Adjustments

The Sustainable Diversion Limit (SDL) Adjustment Mechanism was included in the Basin Plan to provide an opportunity to recover less water if other changes can provide equivalent environmental outcomes. The CEWH sees benefit in the implementation of SDL Adjustment Mechanism projects designed to maximise environmental water use. These include:

- removing physical constraints or barriers to environmental water flows
- putting in place infrastructure that helps deliver water more effectively to wetlands and floodplains and therefore need less water for an equivalent environmental outcome
- changes to river operating rules that provide environmental outcomes.

Basin States are required to implement the supply measure projects by 2024 in collaboration with Commonwealth agencies, including the CEWH.

Efficiency measure projects could increase the recovery of water for the environment by up to 450 gigalitres. Having additional water in the Commonwealth environmental water holdings would provide greater scope to increase environmental outcomes and target more of the key ecological assets in the Basin.

Working together effectively will be critical to ensure that water recovered for the environment can be managed efficiently and effectively to achieve the best environmental outcomes possible.

Investment by the CEWH and the states in natural resource management activities that facilitate or are complementary to environmental watering will be important to ensure the CEWH can achieve the best possible environmental outcomes under the Basin Plan.

Northern Basin Review

The Northern Basin Review was undertaken by the MDBA over four years and the CEWO was involved throughout the process. The key outcome of the Review was that similar ecological outcomes could be achieved with less water if the states implemented a range of 'toolkit measures' in the northern Basin. The decision of what to do following the disallowance of the Basin Plan amendment for the Northern Basin Review is a matter for the Agriculture and Water Resources Portfolio.

A commitment to the implementation of the toolkit measures, such as the coordination and protection of environmental flows, would improve environmental water management and the outcomes that can be achieved under the Basin Plan. This would provide a significant benefit for the CEWH.

Constraints management

There are a number of Basin Plan measures that are fundamental to realising the full value of Commonwealth environmental water and maximising environmental outcomes. These include activities that remove or ease constraints on the capacity to deliver environmental water (constraints measures) and pre-requisite policy measures (referred to as 'unimplemented policy measures' in the Basin Plan).

Physical barriers and constraints measures

The Basin Plan includes commitments to manage constraints to the delivery of environmental water. Constraints refer to physical or other limitations on the volume of water that can be delivered. Constraints can be reduced in a variety of ways, for example through raising roads to enable continued access to property during watering events. The implementation of the MDBA's *Constraints Management Strategy*[2], including the relaxation of constraints in the identified key focus areas, is critical to achieving the greatest environmental return from environmental watering. A subset of the constraints are now identified as SDL adjustment projects.

The CEWH currently works with river operators, land managers and affected entitlement holders to enhance river management and operational practices so that the outcomes of environmental water can be optimised. The CEWH must retain flexibility to allow some appropriate and controlled over-bank flows to occur, such as when watering environmental assets outside the river such as floodplains. Any such action would be undertaken in consultation with relevant state governments and other affected landholders. The CEWH will not place water orders that would flood private land without the consent of the landholder.

Policy-related barriers

There are policy and operational barriers which limit the efficient use and protection of environmental water. The Basin Plan included pre-requisite policy measures to protect environmental water from extraction, and to allow water to be used to build on flows throughout the river system. Basin States committed to put these policies in place by June 2019 to:

1. credit environmental return flows for downstream environmental use (protection of environmental water)

2. allow the call of held environmental water from storage during un-regulated flow events (piggybacking).

These two policy measures are directly linked to the CEWH's ability to achieve environmental outcomes and maximise water use:

- As with entitlements held for consumptive use, Commonwealth environmental water should be protected from extraction by other users. The protection of Commonwealth environmental water guards against needing to recover a greater volume of water in order to achieve the Basin Plan's objectives.

[2] https://www.mdba.gov.au/publications/mdba-reports/constraints-management-strategy

- Return flows provide a mechanism to ensure environmental water can be used more efficiently and effectively through the length of the river system. This will enhance environmental outcomes from water use because return flows can be re-used more than once to provide environmental benefits to multiple sites.

- In regulated rivers, piggybacking allows Commonwealth environmental water to be used to build on the flows already in the river to mimic what would have been larger natural events. It provides for environmental water to be used more efficiently because a greater outcome can be achieved with the same volume of water.

Basin States are currently working to implement their pre-requisite policy measure implementation plans by 30 June 2019, ensuring that they operate effectively and can be utilised by all environmental water managers over the long-term. In many parts of the Basin, policies and measures to deliver on these Basin Plan requirements are being trialled already.

Recovery of water for the environment

Water for the environment is recovered by the Department of Agriculture and Water Resources (DAWR). The types of water that are recovered are important to ensure a balanced portfolio that can maximise environmental outcomes.

The CEWH has provided advice to DAWR on acquisition of water entitlements. This advice is intended to ensure any water recovered for the environment has the necessary characteristics to support the intended outcomes. These include:

- Entitlements should be unencumbered and secure.

- Entitlements should be readily tradable, and any exceptions should be considered on a case-by-case basis.

- The entitlements should provide long-term environmental watering capacity on terms that are no less favourable than those provided to other holders of equivalent entitlements.

- The deliverability of the water acquired should be considered in the assessment of water acquisitions.

- Where possible, the ongoing costs of managing the water should be considered in the assessment of water acquisitions.

- A portfolio of entitlements that maximises environmental utility should be acquired.

- Except where specific advice has been provided to indicate otherwise, a balanced portfolio is preferred without excessive reliance on a particular class of entitlement in any particular jurisdiction or catchment.

Structural Adjustment Assistance

The CEWH does not provide structural adjustment assistance and to do so would be inconsistent with its statutory obligations under the Water Act. However, there are a range of social and economic benefits that can stem from environmental watering, as discussed below.

Benefits of environmental water for other water users

Environmental water is often delivered in response to natural triggers, such as river flows that occur in response to rainfall, to better reflect seasonally appropriate flow regimes. This means that the timing of environmental watering is often different from the timing of irrigation deliveries (i.e. in winter/spring versus summer). By choosing to deliver water early in the water year the CEWH can:

- at times reduce competition for channel capacity during periods of peak irrigation demand
- reduce water losses in the system under standard river operations, resulting in improvements in state water resource shares.

Trading environmental water

The trade of Commonwealth environmental water must be undertaken for environmental purposes, but it can also provide a benefit 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 this time the needs of the environment had largely been met, but there was strong demand for water from irrigators due to drier than normal conditions. This meant that irrigators had access to water to finish off their crops.

Water Resource Plans

Water resource planning is a key component of the Basin Plan that will set the rules for how all water users, including the Commonwealth environmental water holdings, can be managed and delivered in each valley into the future. Commonwealth-accredited Water Resource Plans (WRPs) are required to be in place by July 2019.

The Basin States are currently preparing their WRPs. Opportunities for the CEWO to actively engage on WRPs has varied between Basin States, with each using different mechanisms for facilitating consultation. This includes:

- attending WRP Stakeholder Advisory Panel meetings in NSW, which is the key forum for WRP consultation
- having representation on an Interagency Working Group recently formed by NSW to identify solutions for improving environmental water management through interim measures (prior to WRP accreditation in June 2019) and enduring solutions to be embedded in WRPs
- engaging with Qld on their WRP development by attending meetings with the Qld Department of Natural Resources, Mines and Energy.

The main risk to WRPs being finalised and accredited on time is the need for the remaining 35 plans to be completed and assessed within the short remaining timeframe without compromising the assessment process or the quality of the underlying data, modelling and planning assumptions. NSW has the largest number of plans yet to be finalised.

The MDBA is responsible for assessing whether the WRPs are consistent with the Basin Plan, and for advising the Commonwealth Water Minister if they should be accredited. The short run-way will necessitate a streamlined assessment process to ensure that WRPs are finalised on time. Streamlining comes with an inherent risk to the quality of the WRPs. The CEWH is working with the MDBA to ensure that the treatment of planned and held water is conducive to delivering the outcomes expected from the Basin Plan.

We believe there is a need for improved transparency and information sharing regarding the modelling, planning assumptions and data analysis that underpins the development of the WRPs. Without sufficient clarity on these matters it is difficult to determine whether WRPs will meet the needs of environmental water managers including the CEWH, particularly with regard to fulfilling the CEWH's requirements under the Water Act and PGPA Act.

In finalising WRPs it will be important to clearly demonstrate how risks to the environment and third parties have been assessed and mitigated if the WRPs are to have the confidence of water holders. Rule changes will need to be clearly stepped out so impacts on the management of water portfolios, both irrigator and environmental, are easily understood.

There needs to be clear links between the WRPs and Long-term Environmental Watering Plans, including harmonising risk assessments and assessment of proposed rules changes undertaken during WRP development. Long-term Environmental Watering Plans should support the flexible and adaptable management of environmental water to facilitate the best environmental outcomes. They should also remain 'living documents' that can be updated as operational practices improve and new information becomes available.

Environmental water planning and management

The CEWH, working with other environmental water holders, seeks to maximise environmental outcomes at a Basin-scale and over the long-term through the efficient, effective and transparent management of the Commonwealth environmental water portfolio. Each year the CEWO, guided by the Environmental Management Framework (chapter 8 of the Basin Plan), develops annual portfolio management plans for each catchment in the Basin where the Commonwealth holds water. Planning has increasingly been a collaborative endeavour with states, particularly those who also hold water, and with river operators. These plans support decisions on the management of the Commonwealth's environmental water holdings across water years and across catchments in order to:

- meet Basin Plan obligations
- contribute to the long-term objectives of the Basin Plan's environmental watering plan
- contribute to the expected outcomes in the *Basin-wide environmental watering strategy 2014*
- contribute to the Basin annual environmental watering priorities.

These decisions include the use of the water in the environment, carrying water over in accounts from one year to the next and the trade of Commonwealth environmental water.

The Commonwealth environmental water portfolio plans also consider Basin State environmental water availability and state annual environmental watering priorities. Where available, Basin State Long-term Environmental Watering Plans are a valuable resource in informing the CEWH's decisions as they identify the key Basin environmental assets and their environmental water requirements.

While the Environmental Management Framework has been an effective tool to date, there are opportunities to continue to strengthen its implementation.

Coordination of environmental water delivery

Commonwealth environmental water is delivered in partnership with government agencies, water authorities, industry groups, scientists, non-government organisations and community groups. To maximise the benefit and efficiency of environmental water use, managers look to coordinate its delivery with other sources of water. The Southern Connected Basin Environmental Watering Committee provides a valuable forum to facilitate coordination between environmental water managers in the Southern Connected Basin. The Committee brings water holders, river operators and environmental asset managers together to prioritise effort and resources to meet environmental needs.

The CEWH is committed to establishing best practice in the arrangements for the management of Commonwealth resources through review of practices and procedures, and the formalisation of arrangements. The process of reviews, including the recent independent review of the CEWH's operations and business processes[3], not only provides for continuous improvement in internal business practices but also identification of new or improved partnership opportunities.

Complementary works

The CEWH recognises the importance of integrating environmental water planning and management with natural resource management and complementary works to facilitate achievement of the Basin Plan's environmental objectives. Changes to the Water Act in 2016 provide greater flexibility for the CEWH to use proceeds from the sale of water allocations to fund environmental activities. These changes recognise that environmental outcomes in the Basin require both water and environmental activities. The activities must improve environmental outcomes from the use of Commonwealth environmental water, and be undertaken for the purpose of protecting and restoring environmental assets in the Basin.

The CEWO is in the process of developing an Investment Framework to guide the CEWH on how and what types of environmental activities should be considered for investment. Environmental activities could include activities that enable or improve the efficiency of environmental water delivery, which complement and improve the effectiveness of environmental water delivery, or that improve the knowledge base that informs the management of Commonwealth environmental water.

[3] http://www.environment.gov.au/water/cewo/publications/cewo-review-final-report

Water quality and salinity management

Under the Basin Plan the CEWH must have regard to the water quality and salinity targets for managing flows when making decisions about the use of environmental water. Monitoring is already showing that Commonwealth environmental water has improved water quality in the Basin.

The CEWH's *Framework for Determining Commonwealth Environmental Water Use*[4] guides decisions on the use of environmental water in accordance with the environmental watering plan of the Basin Plan. The framework specifies the criteria that are used for assessing options for Commonwealth environmental water use, which ensures that the environmental objectives for water dependent ecosystems (including consistency with the water quality and salinity management plan (chapter 9 of the Basin Plan)) are met. Long-term environmental water planning also has regard to the *Basin Salinity Management 2030 Strategy*[5], developed by MDBA to deliver a strategic, cost-efficient and streamlined program of coordinated salinity management.

The *2015-16 Basin-scale evaluation of Commonwealth environmental water*[6] considered stream health and water quality as part of its evaluation of the contribution of Commonwealth environmental water to environmental outcomes in the Murray Darling Basin Plan. The report highlighted that Commonwealth environmental water is likely to have had a beneficial influence on stream health and water quality in 2015–16:

- in the Central Murray, Goulburn, Lachlan and Macquarie rivers through provision of base flows
- in the Lower Murray River via weir pool manipulations and base flows
- on dissolved oxygen in the Edward–Wakool river system and water outcomes in refuge pools in the Gwydir river system.

Some more detailed examples of how actions undertaken by the CEWH effectively achieve the water quality objectives of the Basin Plan are provided below.

Salinity

Managing salinity is important to all water users and ensures that water is suitable for drinking, agriculture, recreation and the environment. The delivery of environmental water has contributed to improved salinity outcomes, with Commonwealth environmental water helping export between 100,000 and 4,500,000 tonnes of salt each year since 2009.

Blue-green algae

The CEWH is required to have regard to the recreational water quality targets of the Basin Plan (Section 9.18), which guide the green, amber and red alert levels issued by relevant state management agencies. Because of this, Commonwealth environmental water use has

[4] http://www.environment.gov.au/water/cewo/publications/framework-determining-cew-use
[5] https://www.mdba.gov.au/publications/mdba-reports/basin-salinity-management-2030
[6] http://www.environment.gov.au/water/cewo/publications/2015-16-basin-scale-evaluation-cew-report-and-appendices

been suspended in a number of catchments during periods of blue green algae red alerts.[7] This reflects a consideration of the risk that the use of water could impact on the water quality of towns and communities located further downstream. For instance, during early March 2018 algal red alerts were issued in the NSW Edward-Wakool River and Lachlan River catchments. The use of Commonwealth environmental water was suspended in both of these catchments where there was a risk that the use of Commonwealth environmental water may adversely impact on downstream communities. This suspension was lifted once the relevant algal alert levels had changed from red to amber level of alert.

Blackwater

Blackwater[8] is a natural part of the ecology of lowland river systems during flooding. When accumulations of organic matter such as leaves and twigs decay in wetlands or waterways, the decay process can turn the water black. As the organic matter decays, oxygen in the water can be consumed at a rate faster than it can be replenished. This can result in a low level of dissolved oxygen that may cause stress to aquatic animals.

Blackwater events typically occur when a long time has passed between floods and there is a lot of organic material built up on the floodplains around rivers. Blackwater events are not caused by the scale of flow which occurs with environmental watering. In 2011–12 and 2016 environmental water was used in a number of catchments after large natural floods caused hypoxic blackwater events. The oxygenated environmental water provided a safe haven for fish and other aquatic animals.

Water trading rules

The Water Act sets out the conditions under which Commonwealth environmental water can be sold and prioritises how the proceeds from sales can be used. Water can only be sold in the following circumstances:

- If water allocations are not required in the current year to meet environmental objectives and it cannot be carried over for use in the next year.
- If water allocations are not required to meet environment objectives and, if retained, would likely reduce future allocations due to account limits being reached.
- If the proceeds are used to purchase water that would improve the capacity to achieve the environmental objective set out in the Basin Plan through environmental water use.
- If the proceeds of water allocations can be used for environmental activities that would improve the capacity to achieve the environmental objective set out in the Basin Plan and are complementary to environmental water use.

All trading activities are guided by the *Commonwealth Environmental Water Trading Framework*[9]*.* This makes sure all trades comply with operating rules, protocols and procedures for buying or selling water, including the Basin Plan water trading rules.

[7] http://www.environment.gov.au/water/Office/blue-green-algae-cew
[8] http://www.environment.gov.au/water/Office/publications/factsheet-hypoxic-blackwater-events-and-water-quality
[9] http://www.environment.gov.au/water/cewo/publications/water-trading-framework-nov2016

To date the CEWH has sold 39.9 GL of water allocations in four trading actions, raising $12.6 million in the process. Less than 0.5 per cent of the allocation received by the CEWH have been sold to date. This represents less than 0.1 per cent of all allocations provided to consumptive users since the Commonwealth environmental water holdings were established.

The CEWH will use water directly for environmental outcomes where possible. To date, the CEWH has taken a cautious approach to trading so that the potential impacts of its trading activities on the water market could be determined. As the CEWO gathers more experience, without pre-empting future trading activities by the CEWH, it may become a more frequent participant in the water market, maximising environmental outcomes while managing risk.

The CEWH is a leader in water market transparency and openness publishing a quarterly update that signals what trading actions are being considered. When trades are undertaken processes are used to minimise barriers to access for market participants. The CEWH also publicly displays holdings at the end of each month. This information includes, registered entitlements, carryover where applicable, new allocations, portfolio transfers, trade, allocation transferred for delivery or directly delivered with an estimated water account balance for each class of water it holds. There is no other water holder that provides this level of transparency of its holdings to the market.

There are substantial differences in the level of water market transparency across Basin jurisdictions. It is hoped that, over time, water market information availability will increase, and water market literacy will improve across all water entitlement holders.

Compliance

Effective water management, including robust and effective compliance systems, benefits all water users and is critical to achieving a healthy, sustainable Basin. Compliance is important to the CEWH, just as it is for other water entitlement holders, to protect and maintain the value of its assets.

The effectiveness and transparency of compliance will impact on the efficacy of Commonwealth environmental water and public confidence in the Basin Plan. Therefore, effective and transparent compliance and protection of environmental water are critical components of Basin Plan implementation.

The CEWH is encouraged by the commitment Basin water Ministers made to develop a Basin Compliance Compact to implement the recommendations of the Murray–Darling Basin Water Compliance Review. Successful implementation of these recommendations, particularly those relating to the protection of environmental water and the “no meter no pump” policy, are critical to water entitlement holder and the broader community’s confidence in the Basin Plan.

The CEWH continues to work with state water agencies to manage environmental flows, contributing to positive environmental outcomes across the Basin.

Monitoring, evaluation and reporting

Monitoring and evaluation supports the efficient and effective use water, ensures accountability and transparency, supports adaptive management and helps to build knowledge. It is also critical to the management of Commonwealth environmental water so that outcomes can become known. The CEWO developed the *Commonwealth Environmental Water Monitoring, Evaluation, Reporting and Improvement (MERI) Framework*[10] to guide monitoring and evaluation activities and ensure we are aligning with and meeting legislative and Basin Plan obligations.

Broadly, the Basin Plan establishes the following responsibilities:

- The CEWH is focussed on monitoring and reporting on the outcomes from Commonwealth environmental watering at the asset and Basin-scale.
- Basin States are focussed on monitoring and reporting on the achievement of environment outcomes at the asset scale.
- The MDBA is focussed on monitoring and reporting on the achievement of environment outcomes at the Basin-scale.

The CEWH's long-term monitoring program has been deliberately designed to complement the activities of other agencies while supporting the CEWH's statutory obligations, and informing adaptive management. Office staff continue to work with colleagues from state government and the MDBA to ensure the most efficient monitoring programs are in place.

- Operational monitoring is undertaken for every Commonwealth environmental watering action, typically by state government delivery partners. It involves collecting on-ground data about the environmental water delivery action such as volumes, timing, duration, location, flow rates and river heights.
- Intervention monitoring helps the CEWO to understand the environmental response to decisions on Commonwealth environmental water use.

The CEWO has been monitoring the short term environmental response of environmental water since 2010. Short term monitoring projects [11] have focussed on determining whether selected watering actions are meeting their intended ecological objectives and understanding the implications for environmental water delivery.

The Long Term Intervention Monitoring Project (LTIM) [12] monitors and evaluates the contribution of Commonwealth environmental water delivery in the Basin over 5 years from 2014 to June 2019. This $30 million Project seeks to understand the role environmental water plays in the implementation of the Water Act 2007 and Basin Plan. It focuses on examining the contribution of Commonwealth environmental water to the environmental objectives of the Basin Plan while assisting the CEWH to demonstrate environmental outcomes and adaptively manage the water holdings.

[10] http://www.environment.gov.au/water/Office/publications/cew-monitoring-evaluation-reporting-and-improvement-framework
[11] http://www.environment.gov.au/water/cewo/publications#monitoring
[12] http://www.environment.gov.au/water/cewo/monitoring/ltim-project

The teams implement the monitoring and evaluation plans in seven selected areas within the Basin – the Junction of the Warrego and Darling rivers; Gwydir river system; Lower Lachlan river system; Murrumbidgee river system; Edward-Wakool river system; Goulburn River; and Lower Murray River. These regions provide the maximum coverage possible over areas where Commonwealth environmental watering occurs and complements, rather than duplicates, monitoring activities undertaken by others.

While the full results of environmental watering across the Basin will take many years to be realised, monitoring to date has shown that Commonwealth environmental water is contributing towards a range of environmental outcomes, for example:

- Environmental water delivered down the Lower Darling supported one of the largest Murray cod spawning events in 20 years.
- Environmental water supported the first ever recorded Pelican breeding event in the Lowbidgee with an estimated 6,000 nests in the colony.
- Over the last three to four years, nationally listed threatened species, such as, the Australian Painted Snipe, Silver Perch, Southern Bell Frog and Australasian Bittern are showing indications that they are starting to recover in response to environmental watering.

Our monitoring is proving to be fundamental to adaptively managing the sites where environmental water is delivered (both in real-time and learning from watering event to watering event). More than 30 of Australia's leading regional universities and scientific research institutions engaged to undertake monitoring and research regularly discuss what is happening at sites with ourselves and state colleagues, leading to the rapid adoption of knowledge.

All monitoring, evaluation and research reports are published on the CEWO website annually. All monitoring data is publicly available on request for any purpose. The CEWO acknowledges that further effort is required to communicate outcomes in a format that is more readily accessible to the public.

Basin institutional and governance arrangements

National water reform is being undertaken in collaboration between the Australian Government and Basin State governments. The CEWO is committed to working closely with the MDBA, Basin states, water management authorities, Basin communities, irrigators, agricultural industry and other key stakeholders to help get the best possible outcomes from the implementation of the Basin Plan. Clarification of roles, responsibilities, accountabilities and processes that support effective communication and cooperation continues to evolve.

The CEWH actively plans for and manages its water portfolio in close association with state government agencies. In operationalising the CEWH's portfolio management planning there is a high dependency on state administrative processes and good will partnerships to fulfil its statutory function. The governance arrangements for the delivery of environmental water across multiple state jurisdictions is complex and requires multiple approvals. However, we do not see that this can be avoided given the CEWH needs to maintain the capacity to move water across catchments and operate with a Basin perspective.

State government agencies, including environmental water holders in NSW and Victoria, primarily focus on delivering a broad range of water resource management (including environmental) outcomes in their jurisdiction. The CEWH is mandated to deliver on Basin-wide environmental outcomes. There is the potential for misalignment of watering priorities between the multiple scales of management and objectives. The Basin annual priorities developed by the MDBA can guide the alignment of environmental priorities. This process could benefit from continued refinement and good relationships are key to working this through.

Commonwealth environmental water is physically delivered by river operators within current operating frameworks that apply to all types of water deliveries. Existing frameworks and delivery services were designed to meet the needs of consumptive users and based on state statutory instruments. There is scope for further reform to realise administrative efficiencies and clearly distinguish the roles of the respective Commonwealth agencies and their responsibilities in policy, compliance and operations. This will ensure that environmental delivery services meet the statutory obligations of the CEWH and support Basin-scale operation across multiple state jurisdictions.

The CEWH will continue to work with state agencies through established committees to reduce duplication and coordinate watering activities while ensuring that the CEWH's interests are supported and the required environmental outcomes are being achieved.

Conclusion

Environmental watering involves a highly coordinated, planned and managed program of activities in close partnership with state agencies as delivery partners and involving communities. The CEWH intends to continue to work with all governments, and with people across the Basin, to obtain the best outcomes from the water that has been made available to the environment.