

Submission
No 49

INQUIRY INTO WATER AUGMENTATION

Organisation: Commonwealth Environmental Water Holder

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Commonwealth Environmental Water Holder

Inquiry Submission: Augmentation of Water Supply for Rural and Regional NSW

Background and context

The Commonwealth Environmental Water Holder (CEWH) is a statutory position established under the *Water Act 2007* (the Water Act). The CEWH is responsible for managing the Commonwealth's environmental water holdings to protect and restore environmental assets in the Murray-Darling Basin, in accordance with the *Basin Plan 2012* (the Basin Plan) environmental watering plan and Basin-wide environmental watering strategy.

The holdings are actively managed by delivering water to environmental assets, carrying water over for use in the next water year, or trade (sale or purchase). As at 31 May 2016, the holdings provide 1,685 GL of water per year as a long term average. The holdings will grow until at least 2019 and possibly until 2024.

NSW and the other Basin States agreed to use their best endeavours to implement the Basin Plan and associated measures under the 2013 *Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin* (the IGA). The IGA states that the parties encourage the CEWH to actively participate in the development of rule changes projects where environmental outcomes are maintained or improved, including those that may underpin supply measures under the sustainable diversion limit adjustment mechanism.

Under the IGA, Basin States also agreed that the characteristics of licensed entitlements held for environmental use will not be enhanced or diminished relative to like entitlements held and used for other purposes, except by agreement to facilitate improved environmental watering. This includes that they will be subject to no less favourable conditions, including with respect to fees and charges, access to allocations, capacity to use, trade, and carryover, than like entitlements held for other purposes.

Environmental watering is a key element of restoring a sustainable working Basin under the Water Act and Basin Plan. Monitoring of outcomes from the use of Commonwealth environmental water to date has already shown significant results for fish, birds and native vegetation. Building on these outcomes and achieving the full intended benefits of the Basin Plan relies on:

- entitlements held by the CEWH being subject to no less favourable conditions than like entitlements held for other purposes, consistent with the 2013 IGA; and
- the implementation of commitments under the Basin Plan, including the assumptions used in calculating the volume of environmental water required to meet the Basin Plan targets and objectives.

Water management and the rights attaching to water entitlements

The water entitlements that the CEWH holds have been acquired by the Australia Government through investments in water-saving infrastructure and purchases on the water market. Commonwealth environmental water entitlements are subject to the same fees, allocations,

carryover and other rules as equivalent entitlements held by other water users. These rules determine the utility and value of the Commonwealth environmental water holdings and the environmental outcomes that can be achieved.

The holdings are a significant Commonwealth asset, paid for by taxpayers, and currently worth over \$2.9 billion. Any rule changes that disadvantage the Commonwealth's holdings compared to equivalent entitlements held by other users could devalue this public asset and would be contrary to Basin States' commitments under the IGA. It could also detrimentally impact the CEWH's ability to effectively manage its water resources, compromising environmental outcomes and necessitating further water recovery to meet Basin Plan objectives.

Water management and the implementation of Basin Plan measures need to enable the CEWH to meet its legislative obligations under the Water Act and Basin Plan. Meeting these obligations requires flexibility to respond to changing water availability and environmental demands, annual priorities, costs and risks. Environmental watering will evolve over time as water recovery continues and other elements of the Basin Plan are fully implemented.

Water management and implementation of Basin Plan measures should not assume or rely on particular timing and volumes of Commonwealth environmental water delivery based on past practice. When contemplating any changes which may potentially impact on the management or use of Commonwealth held environmental water, consultation with the CEWH as a significant entitlement holder must occur. The CEWH can help to identify risks of reducing the flexibility or utility of the holdings and to develop reasonable assumptions about future environmental water use. It would also be consistent with best practice to consult with entitlement holders likely to be impacted by regulatory changes.

Carryover

Carryover provisions are an essential management and planning tool for any water user. They can be used to reserve water in good years to mitigate the risk of environmental damage during drier periods. For environmental water managers, carryover is also critical for watering actions in winter and early spring, which often occur prior to increases to seasonal allocations for many entitlement types.

State governments set carryover limits, account limits and use limits that apply to all entitlement holders, including the Commonwealth. No water holder can take water to the exclusion of other water users.

Changes to carryover rules are the responsibility of state governments and would require careful consideration and modelling to investigate the impact of any changes on the reliability of supply for all water users. Greater consistency of carryover rules would support efficient environmental water management across the Basin, particularly between connected systems (e.g. NSW Murray and Victorian Murray entitlements), noting that there are often good reasons for differences between catchments. In catchments where rules place tight limits on the capacity to carryover water, there may be value in revisiting these rules to see if they are still required or if the limits are set at an appropriate level.

Any changes to remove the Commonwealth's right to carryover water would be unacceptable as this would potentially create a situation where the Commonwealth was discriminated against as it would be treated differently from other water holders in a similar entitlement class. Any change to the character of the Commonwealth's entitlements could severely limit the ability to efficiently and effectively achieve the environmental outcomes sought with the Basin Plan.

River Operations

River operators are responsible for managing water deliveries from storages to meet water orders, in accordance with operational limits that set maximum flow rates. Operational limits balance the interests of landholders and water users along the length of the river, including up-stream users' rights over the use and enjoyment of their property and downstream users' rights to access water. Operational limits apply equally regardless of who orders the water or the purpose of the water use.

The CEWH has not and will not place water orders that would flood private land, without the consent of the landholder. If potentially unacceptable impacts on private property are identified, the Commonwealth Environmental Water Office will work with delivery partners, including the Office of Environment and Heritage and/or river operators, to negotiate with affected landholders to avoid or minimise any potential problems and obtain consent to watering events.

Under the Basin Plan, river operators are now managing water storages and water ways for more defined environmental outcomes. While the CEWH continues to work with river operators to ensure environmental watering is integrated into river operations, environmental watering at large scales remains a challenge and it is important that river operators are allowed to trial new operations to manage risks over the longer term as adjustments are made under the Basin Plan.

Achieving Basin Plan objectives and targets

Shepherding, loss rates and inter-valley transfers

Underlying assumptions in the Basin Plan and commitments by State Governments support the need for the protection of environmental water to ensure system wide environmental benefits. The Basin Plan (s7.15) refers to anticipated measures (called 'unimplemented policy measures') which consist of a policy to:

- a) credit environmental return flows for downstream environmental use; or
- b) allow the call of held environmental water from storage during un-regulated flow events.

As with entitlements held for consumptive use, Commonwealth environmental water should be protected from extraction by other users. Before these entitlements were recovered under the Basin Plan, they were owned by consumptive users and the water was not available for extraction by others, and it should not be available now. Protection and re-use of environmental water is necessary to realise the full asset value of Commonwealth environmental water and its full environmental benefits, and to achieve Basin Plan objectives that were set on the basis that arrangements would be in place to protect and enable the re-use of environmental water.

Scenarios that involve return flows or a risk of extraction include where environmental water:

- is used to water a wetland or floodplain and a proportion of the water (return flows) then flows back into the river;
- is left in the river to provide in-stream environmental benefits; and
- crosses a water resource area boundary or state boundary.
- enters a water storage such as a dam.

If Commonwealth environmental water is not protected from extraction or is not able to be re-used throughout the system, a greater volume of environmental water would be needed to achieve the Basin Plan objectives. A failure to deal with legal over-extraction also undermines public confidence that existing State Government rules and regulations will protect water recovered for the environment. Moreover, under the Basin Plan (s7.15), if these arrangements are not implemented by June 2019, this would limit the scope of potential sustainable diversion limit adjustments. There is also a need to account for Commonwealth environmental water in the system to enable transparent management of the water as a public asset. Accurate accounting also supports adaptive management and monitoring of the outcomes of environmental water.

As part of protecting environmental watering and crediting return flows, it is important that water 'lost' along the way (e.g. water absorbed by a wetland) is accurately accounted for. Loss rates should be set at realistic levels based on the best available science to avoid diminishing the security of supply for any users including irrigators and the environment. Where water for the environment and water for irrigation travel along the same channel, the water lost through evaporation and absorption should be shared, as it would have been when the entitlements now owned by the CEWH were owned by other water users and utilised for irrigation.

Arrangements to protect environmental water have been trialled in the Murray in NSW. Arrangements have been in place in the Goulburn River in Victoria for several years to credit return flows, which enables environmental water to be re-used. NSW can draw from these experiences to extend protection and return flow arrangements, something that should be taken into account when considering the ongoing management of the Menindee Lakes system, including any reconfiguration of the lakes and its infrastructure. For example, the shepherding of environmental water from the Barwon-Darling to Menindee lakes will be an important part of ongoing management and achieving environmental outcomes under the Basin Plan.

Extending return flows arrangements to the Murrumbidgee has the potential to provide social and economic benefits as well as optimising environmental outcomes in the Murrumbidgee and Murray Valleys because:

- in addition to achieving environmental outcomes within the Murrumbidgee system, environmental water holders could use their Murrumbidgee general security entitlements (return flows) to help to satisfy environmental demands in the Lower River Murray. This would result in less environmental water being required for the same environmental outcomes;
- return flows arrangements would improve river operators' ability to manage water for consumptive purposes. For example, it would lessen pressure on the inter-valley transfer

account by reducing transfers of environmental water out of the Murrumbidgee system, with the flow-on benefit of reducing pressure on the Barmah Choke; and

- environmental return flows would be subject to realistic loss rates for water consumed by the environment, whereas inter-valley transfers are not subject to any loss allowance.

Constraints Management

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. For example, flows may be limited where there is infrastructure like bridges or roads near a river. Constraints can be reduced in a variety of ways, for example through raising roads to enable continued access to property during watering events.

Even with the removal of constraints the CEWH needs to retain flexibility to allow some 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.

Planned Environmental Water under Water Resource Plans

The majority of environmental water in the Basin is not held entitlements such as the Commonwealth environmental water holdings, but rather planned environmental water under Water Resource Plans for each valley. Both sources of environmental water are important, with planned environmental water being a critical component for the Basin Plan benchmark modelling – as such, should planned environmental water be reduced there would be a need for increased volumes of held environmental water. Commonwealth environmental water deliveries are coordinated with other water in the system, including planned environmental water, to achieve the best environmental outcomes.

Planned environmental water is particularly important for river operations, allowing for the management of storage airspace and flood mitigation, and delivering critical in-stream flows that are necessary for riverine ecosystems which have been greatly affected by river regulation. It also provides more natural flow variability, which is important for stimulating primary production and providing chemical cues crucial for biota, but has generally been lessened as a result of river regulation.

The operation of processes and rules in Water Resource Plans determines the volumes and timing of planned environmental water and the environmental outcomes that can be achieved. It is important that any new Water Resource Plans maintain the same volumes of planned environmental water, and do not change the timing of planned environmental water in ways that would reduce the environmental outcomes achievable. Water resource plan requirements under the Basin Plan (s10.26) stipulate that water resource plans must be consistent with the environmental watering plan and the Basin-wide environmental watering strategy

Water market and reporting – investment framework

The CEWH trades in a transparent manner consistent with its public Trading Framework,¹ and information on trades and the use of trade proceeds are reported in the CEWH annual report. Recent amendments to the Water Act increase the CEWH's flexibility to use revenue from selling environmental water allocations to support environmental activities that will improve the environmental outcomes from environmental watering. The CEWH will consult with communities on the development of frameworks to identify, prioritise and fund environmental activities.

Efficiency of Commonwealth environmental water management

Commonwealth and State government agencies' planning, prioritisation and reporting processes are undertaken in collaboration to minimise duplication, support coordinated management, and ultimately achieve efficient and effective use of environmental water.

¹ The Commonwealth environmental water Trading Framework is available at:
<http://www.environment.gov.au/water/cewo/trade>