

Standing Committee on the Environment and Energy

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## SUBMISSION

### Inquiry into the management and use of Commonwealth environmental water

I appreciate the opportunity to participate in this Inquiry into the management and use of Commonwealth environmental water.

#### Key Points:

1. The media associated with this Inquiry (27 March 2018) states that the Commonwealth Environmental Water Holder (CEWH) *'has become the largest single holder of water entitlements in the Murray-Darling Basin.'* This statement obfuscates the scale at which the CWH operates and who owns this water. As part of government, it has over 24 million shareholders and operates across the over 1 million square kilometres. This means the CEWH is not the largest single holder of water entitlement in any of the zones in which it operates. The extractive use of water, mostly used by irrigated agriculture, remains the single largest holder of water entitlements in the Basin. Irrigation companies, such as Coleambally and Murray, are generally by far the largest holders of water in the areas where they operate.

The use of such language is inappropriate and reckless because it strikes fear into riparian land users. For example, I understand the channel capacity downstream of the Hume Weir is about 25GL/day. The idea that MDBA would run 26,000GL down from the Hume or from Yarrowonga is salient risk to these landusers. I have heard their concerns in many meetings. However the CEWH, on average, only uses 30% of its water each year and that is across the entire basin. When this is superimposed with our emerging knowledge about how to use environmental water it creates uncertainty within the community. *In order to improve community engagement and awareness of the way in which environmental water is managed the Government, as a whole, need to communicate more accurately about the CEWH.*

2. Irrigated agriculture is important to local and regional economies and many of the enterprises are doing it tough. However I am concerned, given the both the scientific evidence and what I have seen in Murray, that over extraction of water threatens the health of our river and this is having impact on a range of users and the wildlife. In 2016 we had not only one of the largest algal blooms, but also one of the most intense. It seriously affected a range of stakeholders right across the Murray Valley and beyond. The purpose of the Commonwealth water holdings is to help address the serious decline of river and wetland health in the Basin. *Commonwealth held environmental water has a critical role in helping Australia achieve a healthy working river.*
3. I understand, the total volume of the holdings as at 31 January 2018 was 2672 gigalitres of entitlements -not far away from the 'stated' 2705GL. However believing a quantum of water is directly associated to a good environmental outcome is a distortion of what is needed. We

don't so much need water allocated as 'environmental water' but need a real account of 'water for the environment' How much of this water is actually functional and where? The operating environment means:

- The Commonwealth environmental water holdings consist of around 230 water accounts across 22 catchments- each account has its own restrictions.
- The rules governing the entitlements vary across states, across catchments, and across entitlements. These restrict how it is used, the volumes available in different areas
- The CEWH's ability to prevent rent seeking from landholders as an environmental flow progresses downstream as well as its tendency to attenuate as it goes downstream restricts its ability to be an effective tool across the Basin- particularly the lower lakes
- Much of the CEWH water was secured by improvements to irrigation infrastructure because it was politically sensitive to enter the water market. However such improvements involved reducing return flows from the inefficiencies that were contributing to rivers and groundwater recharge.
- Commonwealth environmental water entitlements are subject to the same fees, allocations, carryover and other rules as equivalent entitlements held by other water users. This reduces agility.
- CEWH operates as a good corporate citizen which means it also considers community views and has extensive involvement, which involves considering social and economic outcome

*Constraints substantially reduce the effective environmental water that is available to a particular location. Given not all environmental water is the same, an account of the 'tools the CEWH have in their toolkit' by location might provide a better picture of opportunities across the regions and help maximise the use of the environmental water asset.*

4. The timing of environmental water release from storages to build on natural inflows into a regulated river system requires adaptive management and flexible decision-making based on triggers and natural cues. It is also important for held environmental water to be available in dry times to boost resilience in key environmental assets and support drought refugia. Core wetland areas, pools and billabongs are important habitats during drought for native animals and fish. The use of environmental water to maintain these areas is critical for the maintenance of species populations. It helps to counteract the unnatural protracted drying that results from high levels of water extraction.

The above means the use of environmental water for the protection and restoration of environmental assets will be maximised if agencies have the agility to piggyback on (social, economic and environmental) opportunities as they arise.

My own experience with the Murray Wetland working group in NSW in 2000's operating and managing volumes of environmental water demonstrated to me that water licencing and access rules are an impediment to achieving not just environmental outcomes, but joint productive/environmental benefits when used in co-operation with landholders.

*Administrative rules constrain agility and are additional cost to achieving a public good. Agility is critical in both maximising outcomes and being innovative.*

5. There is no doubt environmental water can benefit the environment when managed appropriately. The extending of bird breeding events in the Barmah forest, the increase in frog populations on the Murrumbidgee, and the response of wetland in the Wakool system are all examples of where environmental water has benefited the environment.

Idealistically the delivery of Commonwealth held environmental water together with State held environmental water would mimic seasonal variability and respond to natural triggers to maximise environmental outcomes without considering other socio and economic objectives. However the CEWH does not operate with a sole focus on the environment. They consider local communities, constraints, and a range of other social and economic implications of using environmental water. They operate as 'good' corporate citizens. Private water holdings are rarely held up to the same scrutiny or operate under the same rules as those of the CEWH. I personally think they do a great job. *The key point being maximising the use of environmental water for the protection and restoration of environmental assets and community engagement and awareness of the way in which environmental water is managed are to some degree conflicting objectives and this needs to be recognised.*

6. My final point is a mix of statements about innovative approaches to environmental water. Innovation by definition, involves leadership and risk. Thus, innovation is particularly difficult to achieve when it involves taxpayer's money. To my mind, it is almost impossible to do so when it also involves a precious commodity such as water. It therefore underpins the necessity to have i) a rigorous monitoring program; ii) effective community engagement; and iii) adaptive management. *I believe the work done by CEWH with regional universities and the structures in place for community engagement are largely effective in relation to this point.*

My fear is the broader community is increasingly thinking 'the answer' is a simple benchmark or threshold. It might be that \$3billion has been spent and/or once the CEWH reaches 26750GL. However, water volumes are not the only solution, improvements in water quality are also needed.

Research into the use of environmental water shows outcomes are maximised when infrastructure and the community, etc work together. For example using irrigation canal escapes or community members deploying a range of creative, improvised devices that introduce turbulence to the water surface or bubble air into the water column have been shown to increase outcomes. Similarly additional earthworks may be needed in order to direct flows. *An integrated approach to using environmental water is needed in order to maximise the benefits.*

*The CEWH could realise an integrated approach by being able to sell water, under a set clear guidelines, on the open market.* The money obtained could be used to resource the associated other works needed to make environmental water most effective. Moreover, it seems the use of environmental water as a tool can only occur only when certain situations come together- it is thus an asset not realising its potential in some years. Social benefit could be realised when sold for private use at an appropriate time.

Finally the use of environmental water operates in itself a novel and innovative area of environmental management where there are many unknowns. Adaptive management by its nature does not believe that the benefits or disbenefits that occur from a management action are, by nature, right or wrong- they are opportunities for learning. As the saying goes it is only a mistake if you make it twice. *Governments and politicians need to appreciate this and provide the organisation with the scope to operate in this way*

*Kind Regards*

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