

PORTFOLIO COMMITTEE NO. 5 – INDUSTRY AND TRANSPORT INQUIRY INTO AUGMENTATION OF WATER SUPPLY IN RURAL AND REGIONAL NSW

Supplementary Questions: Mr Mark Taylor, Assistant Secretary, Commonwealth Environmental Water Office

1. How concerned are you about the state of the Darling River?

Earlier this year the Commonwealth Environmental Water Holder (CEWH) provided a submission to the NSW Department of Primary Industry Water (DPI Water) on the Status and Issues paper for the Barwon-Darling Watercourse Water Resource Plan. The submission emphasized the importance of ensuring all new Water Resource Plans (WRPs) are developed using the foundation assumptions on which held environmental water is used and that was built into the Water Act 2007, Basin Plan 2012 and the National Water Initiative.

Of major concern to the CEWH were the changes to the Barwon-Darling WRP in 2012 just before the Basin Plan was agreed. These changes increased flexibility for irrigators to take water with potentially negative environmental impacts, particularly on low flow events through the Barwon-Darling. For example, changes to 'carryover' rules allow irrigators to take the equivalent of three years allocation water in the first year following two dry years and the removal of the restriction to use a 150mm diameter pump when extracting water. These changes were implemented without any corresponding policy to limit the rate of extraction (Daily Extraction Limits were developed but not implemented). The result of these changes is A class licences in the Barwon-Darling became more reliable and water can be taken in greater quantities particularly in times of low flow, which means that there are more occasions when flows are not reaching the Darling River.

Low flows are ecologically important to maintain baseflows along the river which improve water quality, including the suppression of algal bloom outbreaks, and provide passage and habitat for fish and turtles. Low flows also benefit rural and aboriginal communities along the river and particularly downstream of Bourke. An issue raised by Aboriginal communities was that 'water quality is an issue in low-flow times and generates significant weed growth'.

In the Lower Darling River (2017-18), there is a high demand for environmental water to build upon outcomes in this reach from 2016-17, particularly in relation to protecting native fish. Native fish population studies in past years have demonstrated the importance of the Darling River for providing source populations of golden perch and other species, which then disperse throughout other rivers of the southern-connected Basin.

2. Is there over allocation of legal water entitlements in the Murray-Darling Basin?

State authorities and the MDBA set the rules for water management in the Murray-Darling Basin by catchment area including the legal extraction level by water licence holders. WRPs currently under development will set sustainable diversion limits for each catchment and the States are committed under the Basin Plan to ensuring that there is no growth in water allocations above those limits.

3. Are you concerned about the level of illegal floodplain harvesting works in the Murray-Darling Basin?

The CEWH is aware that the NSW State Government is reviewing floodplain harvesting within their State. In lieu of this information being publicly available, the extent of any illegal floodplain harvesting works is not known to the CEWH. The allegations of illegal floodplain harvesting is a concern as to its effect on the achievement of ecological outcomes that are reliant on periodic floodplain inundation.

Any allegations made are principally a matter for NSW authorities and the Murray-Darling Basin Authority (MDBA) to investigate. If the CEWH became aware of any allegations of illegal flood plain harvesting or misappropriation of the Commonwealth's environmental water holdings, these concerns would be raised with the appropriate state authorities.

4. Do you have any idea how much water is diverted by illegal floodplain harvesting?

The CEWH is not aware of the volume of water that may be subject to illegal floodplain harvesting.

The responsibility for compliance sits with the DPI Water and WaterNSW, through regulatory powers to manage water resources under the Water NSW Act 2014. The MDBA is responsible for compliance and assurance against the Basin Plan provisions, including the valley scale sustainable diversion limits.

Failure to appropriately regulate water extraction undermines public confidence in the State's water management, regulation and compliance.

5. What is the impact of illegal flood plain harvesting on environmental outcomes in the Murray- Darling Basin?

Illegal extraction has the potential to impact on achieving the full implementation of the Basin Plan, including the Commonwealth bridging the gap towards the Sustainable Diversion Limits and Basin State WRPs.

Riverine ecology relies on the periodic inundation of floodplain environments. Environmental water managed by environmental agencies and other environmental water holders complements these naturally occurring events. Reducing the occurrence of natural floodplain watering through floodplain harvesting undermines the ecological outcomes achievable with the use of held environmental water and creates an impost on public resources invested by governments to construct works designed to partially restore natural floodplain inundation.

6. How much engagement has the NSW Government had with the Commonwealth Environmental Water Holder regarding the assessment and issuing of floodplain harvesting licences?

This issuing of licences is the responsibility of the NSW Government, consistent with obligations under the Basin Plan, and so the CEWH has not been engaged on this matter. However, as a water licence holder, the CEWH would expect no adverse effect on the reliability of existing entitlements (including entitlements held for the environment) or water currently made available for the environment under the provisions of a Water Sharing Plan (planned environmental water).

7. Are you concerned that written into Water Sharing Plans in NSW is a provision which deliberately excluded the Millennium Drought and climate data collected in the past 13 years when making decisions about how much water to keep in storages for Local water utility access, domestic, stock and native title rights, environmental releases and high security licences?

NSW water management practices and policy must be transparently reflected in WRPs to provide all water holders with the necessary confidence to plan business operations, or in the CEWH's case, to meet statutory obligations under the Water Act 2007 and Basin Plan. In particular, WRPs must be prepared having regard to extreme events including extreme dry periods and describe how the water resources will be managed during these events (refer Basin Plan, s10.51).

8. What impact will the decision to release up to 20% more water to general security license holders based on pre-2004 data have on environmental water availability if we have another serious drought?

The CEWH holds general security entitlements that are subject to the same conditions as other water entitlement holders with relation to fees and charges, carry over, trade and access to water allocations. Whilst each drought is different, any growth in use of the water resources should be based on rigorous information to avoid exacerbating risks to the environment or other water users. The CEWH expects the NSW Department of Industry Crown Lands and Water division to provide their assessment of risks relating to this proposal through their stakeholder advisory panels, for full transparency and so all entitlement holders can assess the impacts of changes.

9. Is the level of monitoring and metering currently undertaken by WaterNSW satisfactory for the purposes of accounting for Commonwealth environmental water?

Environmental watering is relatively new and current operational practices have been established on the extraction of water for consumptive use rather than retaining water in stream. Accounting for environmental water poses challenges but is nevertheless important to ensure the effective and effective management of the Commonwealth's water portfolio, which is a large public asset. It should be noted that the key finding from Mr Matthew's *Independent Investigation into NSW Water Management and Compliance* Interim Report is that water-related compliance and enforcement arrangements in NSW have been ineffectual and require specific and urgent improvement.

a. If not, what are the key issues and what is required to ensure it is satisfactory?

There is a clear need to establish new methods for accounting for environmental water. These methods must be creditable, reliable and practical. The CEWH is open to working with State Governments to develop such methods.

b. How does it compare to the level of monitoring and metering in other Basin states?

The level of monitoring and metering in the Southern Connected system is comparable to the systems in other Basin states.

10. Is the level of information provided by WaterNSW about water releases satisfactory?

Yes, WaterNSW provides good information about water releases.

a. If not, what are the key issues and what is required to ensure it is satisfactory?

Not applicable.

b. How does it compare to the level of information provided by other Basin states?

Similar.

11. Are there any issues for the Commonwealth Environmental Water Holder in getting approval in NSW to put in place temporary stream gauges for the purpose of monitoring environmental water releases?

No. The CEWH recently contracted hydrographers through contractual arrangements with NSW Office of Environment and Heritage to put in temporary stream gauges for the purpose of monitoring environmental water in the Macquarie River.

12. In your evidence regarding the impact of irrigators pumping environmental water releases you said: "I think we need to see a future where there is both a regulatory response, which provides us a sound footing to work forward with". What regulatory response are you suggesting is required?

It is important to understand that the governance arrangements for the delivery of environmental water across multiple state jurisdictions is highly complex and requiring multiple levels of jurisdictional approval. The state government agencies, including environmental water holders in NSW, have a primary focus of delivering a broad range of water resource management (including environmental) outcomes in their jurisdiction. The CEWH is mandated to deliver upon Basin-wide environmental outcomes. This creates the potential for a misalignment of watering priorities between the multiple scales of management and objectives.

The Basin annual priorities developed by the MDBA is intended to guide the alignment of environmental priorities however this process is undergoing continued development. Commonwealth environmental water is physically delivered by river operators within current operating frameworks that applies 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. Further reform is required for these delivery services to meet the statutory obligations of the CEWH and support Basin-scale operation across multiple state jurisdictions.

Of primary importance is the implementation of mechanisms to ensure the protection and use of environmental water, as per the obligations under the Basin Plan. These measures should be also embedded in WRPs. This issue is discussed further in response to question 13 below.

13. How important is it for environmental water to be protected by rules in the water resource plans for unregulated flows?

All State Governments agreed to introduce measures to improve the effectiveness of environmental watering as part of the agreement in the Basin Plan to reduce to level of water recovery from the proposed 4000 gegalitres which scientists indicated was necessary to restore the environmental health of the Basin down to 2750 gegalitres. These measures included commitments to protect environmental water through river systems, which are to be codified through WRPs. To date, these measures have not been implemented, although there are plans to introduce measures by mid-2019. The extent to which these measures are effective if they are introduced, will directly affect the capacity of the CEWH to meet environmental objectives set out in the Basin Plan.

The achievement of environmental outcomes under the Basin Plan and water recovery targets were developed on the premise of environmental water (planned and held) being protected from extraction, and that environmental water can be used to augment unregulated flows events. Water Resource Plan rules that do not provide protection for environmental water, or reduce the volume of unregulated flows, compromise the effective and efficient use of water resources managed for environmental outcomes.

The MDBA has the statutory function under the Basin Plan to accredit the WRPs and the underpinning hydrological models.

14. The Northern Basin Review report suggests that there is over recovery of environmental water in the Macquarie and Gwydir and that held environmental water needs to be returned to irrigation industry.

- a. Are you aware of the information used to come to those conclusions? If so, what was it?
- b. Has the Commonwealth Environmental Water Holder been consulted regarding cap factors in either of those systems?
- c. Do you think the Basin Plan would meet the agreements under the RAMSAR Convention if held environmental water is reduced either of those systems?

The Northern Basin Review report proposes to reduce the overall recovery in the Northern Basin by 70 gegalitres from 390 gegalitres to 320 gegalitres, and in the context of the introduction of a range of

measures designed to improve the efficiency of environmental water use. It is only under this proposed scenario that there is a level of over-recovery in the Macquarie and Gwydir catchments. The amendment required to implement the reduced level of recovery in the Northern Basin has not yet been introduced into Parliament.

14.a The Northern Basin Review report was developed by the MDBA, and both it and the underpinning modelling on the achievement of environmental outcomes with a lower water recovery target, are available from the MDBA website.

14 b. No

14 c. The obligations under the Ramsar Convention are to maintain the ecological character of Ramsar listed Basin wetlands. Maintaining ecological character requires appropriate and adaptive management action. Environmental water is a critical element but not the only element of adaptive management. Any reduction in environmental water in these river systems therefore has the potential to impact Ramsar sites but the extent and nature of the impacts is difficult to ascertain without a more complete understanding of all management actions taken to support sites.