



Australian Government

Commonwealth Environmental Water Office



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Update

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Feature story

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...to protect and
restore rivers,
wetlands and other
environmental assets
in the Murray-Darling
Basin

Murray-Darling Basin Environmental Water Holders Report

For the first time, environmental water holders have collaborated to produce an 'Environmental Water Holders Report'. This report has been jointly signed by the Commonwealth Environmental Water Holder, the Murray Darling Basin Authority (on behalf of The Living Murray program), the New South Wales Office of Environment and Heritage and the Victorian Environmental Water Holder. It was presented to the Murray-Darling Basin Ministerial Council in June 2012.

The purpose of the report is to highlight the achievements, cooperative arrangements, challenges, and opportunities in the active management of environmental water in the Murray-Darling Basin.

The majority of the environmental water in the Basin is 'rules-based' or 'planned' environmental water, which is committed through the plans

developed by Basin states to manage their water resources. The remaining environmental water can be actively managed to meet environmental objectives in a flexible and responsive way—often in conjunction with planned environmental water—to adapt to changing conditions and to help mitigate emerging risks. This category includes both water held as entitlements and water managed as 'discretionary' planned environmental water, which requires a decision for release.



Key achievements discussed in the report include that environmental water holders have delivered nearly 3,847 gigalitres of held and discretionary environmental water since 2005-06.



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This water has been used to achieve a range of ecological benefits including supporting:

- ▶ better river red-gum health;
- ▶ improved water quality;
- ▶ hydrological connectivity; and
- ▶ the provision of habitat and breeding opportunities for birds, frogs and fish.

The report includes case studies on important environmental watering actions in the



Murrumbidgee, Gwydir and Murray catchments. These case studies demonstrate that the delivery of environmental water is a cooperative effort involving multiple stakeholders, including state and Commonwealth government agencies, catchment management authorities, water users and community groups, indigenous representatives, non-government organisations, landowners and land managers, among others.

The active use of water entitlements to achieve environmental outcomes is a relatively new approach to water management in the Murray-Darling Basin. State and Commonwealth governments are working together to build institutional capacity and connections with the community in order to achieve improved environmental outcomes while avoiding any impacts that may diminish the rights of other users.

A copy of the report is available at :
<http://www.environment.gov.au/ewater/publications/mdb-environmental-water-holders-report-2012.html>

Use and carryover of Commonwealth environmental water

Carryover of water is provided for in regulated parts of the Murray-Darling Basin and allows water users to hold water in storages so that it is available in subsequent years.

Carryover provides water users with greater flexibility to manage their own water availability across years. Rules apply to the carryover of water to manage the impact that water users may have on other users through their carryover decisions. The Commonwealth Environmental Water Office operates under the same rules and pays the fees and charges associated with its water as all other water licence holders.

The Commonwealth used 683 gigalitres of environmental water in 2011-12. It used 53 per cent of its overall available water of 1,292 gigalitres in 2011-12, and used 65 per cent of this water in the southern connected Basin.



On 1st July 2012 the Commonwealth held water equivalent to 2.8 per cent of public storage capacity across the Murray-Darling Basin. The carryover from 2011-12 to 2012-13 (after deductions for evaporative losses in northern Victoria) was 615 gigalitres, of which 60 per cent was in the north of the Murray-Darling Basin, and 40 per cent was in the southern connected Basin. This carryover, with the



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new allocations received so far in 2012-13, provides considerable potential to achieve environmental outcomes early in 2012-13.

The Commonwealth Environmental Water Office has used a higher proportion of the water available to it over its four years of operations than the average of other water users. This means that more airspace has been created for further in-flows and allocations to all users than would have otherwise been the case if Commonwealth use had been the same as average. At 30 June 2012, the Commonwealth held 0.1 gigalitres in accounts for which carryover was unavailable, and this water was re-allocated under State rules.

Over the longer term it is expected that the percentage of Commonwealth environmental water carried over will be similar to other water users – although, like all water users, it will vary from year to year. See the report on carryover of Commonwealth environmental water at <http://www.environment.gov.au/ewater/publications/carryover-report-2012.html>.

Summary of submissions to the discussion paper on trade of Commonwealth environmental water

A discussion paper on trade of Commonwealth environmental water was released for consultation over the period from November 2011 to May 2012. Forty three submissions were received from a range of stakeholders including national and state industry groups, irrigation corporations, state government agencies, water brokers and individuals.

Most submissions indicated that the discussion paper was a positive step in developing a trading framework and welcomed the opportunity to participate in the consultation process.

Approximately eighty five percent of the submissions either explicitly supported or were

generally in agreement with trading by the Commonwealth Environmental Water Office. Three submissions explicitly indicated that they do not support trade of Commonwealth environmental water and it should not be traded, and a further three submissions were generally not in agreement with trade.



Whilst there was broad general support for trade most stakeholders also addressed issues, some of which had been raised in the discussion paper:

- ▶ Nearly three-quarters of respondents noted the size of the Commonwealth Environmental Water Office holdings and the perceived potential market impacts of trade;
- ▶ Approximately two-thirds supported the need for transparency to assist water market participants to understand the operations of the Commonwealth Environmental Water Office;
- ▶ More than half were concerned about potential adverse third party impacts as a result of trade and carryover of water by the Commonwealth Environmental Water Office;



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- ▶ Just under one-third commented on the need for more information about environmental water plans as well as a portfolio management strategy;
- ▶ Approximately fifteen percent raised:
 - the need to address any conflict of interest issues;
 - the need for controls and monitoring of trading arrangements;
- ▶ Approximately ten percent suggested that:
 - the *Water Act* should be amended (section 106) to provide for greater flexibility in trading; and
 - socio-economic issues should be considered as well as environmental outcomes when considering trading.

As indicated in the discussion paper: <http://www.environment.gov.au/ewater/publications/water-trade-discussion-paper.html>, the next step in the process will be the public release of a position paper responding to the issues raised in the submissions. This will inform development of operating rules which will establish the general framework within which trade will occur.

Commonwealth environmental water helps to maintain river health in the Murray river

Background

Flooding in the summer of 2011-12 exceeded the floods recorded in 2010-11 in a number of areas of the southern Murray Darling Basin. This was particularly the case with the Murrumbidgee River which experienced massive flooding after March 2012 rainfall with areas of the floodplains inundated for the first time in over a decade.

The accumulation of organic matter that was washed into wetlands and waterways as a result of the floods decayed and darkened the water, turning it black. As the organic matter decays, oxygen in the water is consumed, sometimes at

faster rates than it can be replenished.

Significant levels of blackwater started to occur in the Murrumbidgee and flow into the Murray in April with the potential to impact adversely on fish and other aquatic species.

The low levels of dissolved oxygen can cause stress and sometimes death to fish and other aquatic species.

Benefits of environmental watering

As the lower Murrumbidgee River was already in a state of natural flooding, environmental water could not be used at that time to help dilute the areas of blackwater occurring in the Murrumbidgee River.



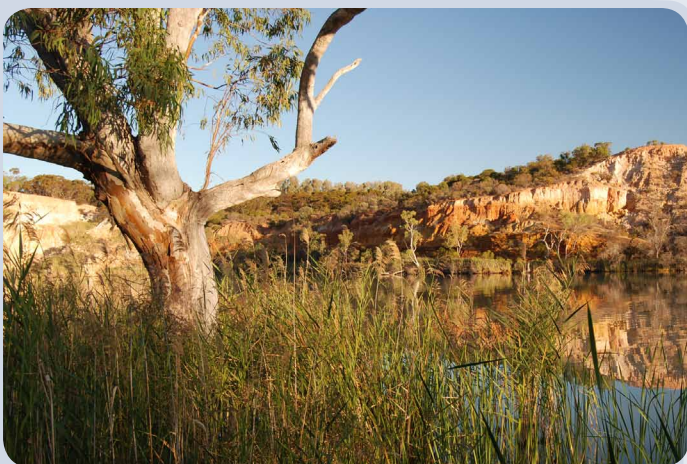
Commonwealth environmental water was provided to maintain flows in the Murray at levels that were able to suitably dilute water coming out of the Murrumbidgee River. From 16 April to 17 May 2012, 92 gegalitres of Commonwealth environmental water were released from Hume Dam, adding to flows already in the Murray River. A further approximately 45 gegalitres was delivered to the Edward-Wakool River system to provide important fish refuge habitat from blackwater in this region. The flows



from the Edward-Wakool system flowed through to the Murray River, contributing to maintaining higher Murray River flows at the Murrumbidgee River junction.

The additional flows of environmental water were not able to fully counteract the negative impacts of blackwater. However they did maintain river flows at levels that assisted in maintaining or improving aquatic habitat and providing important refuges for fish and other aquatic species.

Follow the link to see a snapshot of monitoring results on 8 May 2012 & Map : <http://www.environment.gov.au/ewater/publications/ewater-helps-murray-factsheet.html>



Environmental water shepherding

Water shepherding relates to the use of Commonwealth environmental water in unregulated catchments. In unregulated catchments, the Commonwealth may 'take' water against its water entitlements by leaving flows instream.

These flows may then cause downstream access thresholds to be exceeded, potentially leading to the extraction of Commonwealth environmental water by other users. A key focus of water shepherding is to ensure that third-party interests are neither increased nor diminished. This includes

irrigators within a particular catchment and downstream.

New South Wales water shepherding

From 14 May 2012 to 2 July 2012, the New South Wales Office of Water released for public comment a report that presents an analysis of options for water shepherding in unregulated streams in New South Wales. Proposed Water Shepherding arrangements in New South Wales are being investigated to improve the use of water entitlements purchased by the Commonwealth for the environment in unregulated streams, and to provide the capacity to deliver water to high priority environmental assets downstream, without impacting on the reliability of supply to existing water users. A key principle guiding the development of the water shepherding approach is that third-party impacts (including impacts on the rights of other water users) must be avoided, while protecting the passage of environmental water. The comments received through this process are being considered as part of the development of the next stage of the project when shepherding arrangements will be implemented.

For further information about the NSW Water Shepherding project see: <http://www.water.nsw.gov.au/Water-management/Water-recovery/Water-shepherding/default.aspx>

Queensland water shepherding

Work to progress the memorandum of understanding for environmental water shepherding in Queensland unregulated streams will accelerate in 2012–13, following on from the development of New South Wales arrangements (referred to above). Although water management approaches differ in Queensland, the project will benefit from and build upon the understanding developed in the New South Wales water shepherding project.



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Right: Yanga National Park after environmental watering (November 2010) - Photo by Tanya Doody, CSIRO Land and Water - used with permission.

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