

Fact Sheet 4: Operational Rule Changes

We will meet our Basin Plan obligations in a way that balances social, economic and environmental outcomes.

Victoria is working with other Murray-Darling Basin states on projects that involve changing the way river systems operate. These are known as Operational Rule Changes.

Five Operational Rule Change projects are part of Victoria's package of 22 projects to achieve the Basin Plan's environmental targets without the need for further Commonwealth water buy-backs. These five projects are joint with NSW.

The following five projects involve changes to river operation rules to improve flexibility and control over delivering environmental water to the Murray River. The projects achieve the environmental outcomes of the Basin Plan using less water, so that they meet the rigorous statutory requirements for offsets under the Sustainable Diversion Limit adjustment mechanism (see Fact Sheet 2).

Barmah-Millewa Forest Environmental Water Allocation:

The Barmah-Millewa Forest is the largest river red gum forest in Australia and is listed under the Ramsar International Convention on Wetlands as a significant breeding site for waterbirds.

This project involves changing the rules associated with the water set aside by Victoria and NSW in an environmental account (the Barmah-Millewa Forest Environmental Watering Allocation or BMFEWA). The BMFEWA was established by Victoria and NSW in the late 1990s. Since then, many more environmental water entitlements have been created. This proposed



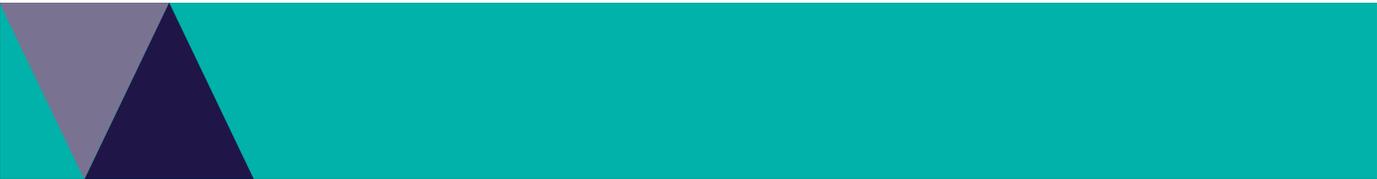
Aerial view of Hume Dam. Picture courtesy of MDBA.

operating rule change will improve the coordination of the BMFEWA with the environmental water recovered under the Basin Plan, leading to better environmental outcomes. It will enable BMFEWA to be used more effectively, and improve the number of successful environmental events that can be delivered, within the same volume of allocated water.

Flexible rates of fall in river levels downstream of Hume Dam:

Hume Dam is the major operating storage on the Murray River system. Hume Dam releases irrigation, domestic and stock, urban and environmental water to Victoria and NSW, and provides about one-third of South Australia's (SA) entitlement. Hume Dam also affects the delivery of water to many important environmental assets.

At present, Hume Dam's operators are not permitted to allow the flow rate below the dam to fall more than 150 mm a day (six inches – 'the 6-inch rule') at Doctor's Point. This rule was made to minimise risk of river bank slumping. It has been by the Murray-Darling Basin Authority. The review found it was too conservative and



could be relaxed, without an unacceptable increase in slumping risk.

The '6 inch rule' uses more water than if the flow rate was allowed to drop more quickly. It also contributes to unseasonal flooding of Barmah-Millewa Forest — an adverse environmental impact — because dam releases cannot be quickly scaled back when rainfall means that irrigators no longer need water they have ordered. This project will save water as well as reducing flooding risks to Barmah-Millewa Forest.

Hume Dam airspace management and pre-release rules: The volume of water held in Hume Dam is managed mainly to protect the storage and reliability of water supply, with some flood mitigation benefit to downstream communities. This is done by calculating a target volume that takes into account the total capacity of Hume, as well as forecast inflows, and irrigator demands — but not environmental demands.

This proposed operating rule change will enable environmental water demands to be considered when calculating requirements for space ('airspace') in the reservoir. This will reduce the need for the dam operators to pre-release water in spring to create additional airspace in the storage in advance of potential inflows. That helps to limit the risk of flooding, resulting in more water being available in Lake Hume for allocation against entitlements to meet irrigation and environmental demands.

Improved Regulation of the River Murray: A key decision in operating the River Murray system is determining how much water to release from storage each day to meet all commitments. Operators do not have perfect knowledge of river conditions and make conservative assumptions, releasing more water than is required. This excess water is the operational loss. Leading up to and following the millennium drought, there has been significant water reform and a shift in operational practice. Operators are now making decisions informed by more accurate and plentiful data on river conditions.

This results in lower operational losses, with more water being available for allocation to environmental and consumptive demands. The business case proposes to recognise the enduring improvement in operational efficiency as a permanent change.

2011 Snowy Water Licence schedule 4 amendments to River Murray increased flow call out provisions: This project involves changes to rules about flows from the Snowy Hydro scheme to the Murray River. In 2002, Victoria, NSW and the Commonwealth agreed to fund water efficiency and water entitlement purchases in the Murrumbidgee and Goulburn river systems and diversions from the Murray River system. The water recovered allows up to an additional 70GL and 212GL each year to be released to the Murray and Snowy rivers respectively for environmental purposes.

Formerly, the release of that water was at the discretion of the electricity generator Snowy Hydro. It was generally at times suited to Snowy Hydro's commercial outcomes, which limited the environmental benefits. In 2011, changes were made to the Snowy Hydro licence and to the release rules for this water (called 'River Murray Increased Flows' or RMIF). As a result, the Victorian and NSW governments now hold that water and order its release for environmental outcomes in the Murray River downstream of Lake Hume. This proposal will provide a means to control the timing of RMIF water releases from the Snowy Scheme, allowing more flexibility to achieve environmental outcomes targeted in the Murray River below Hume Dam.

WHERE TO FIND OUT MORE

To find out more about Victoria's projects and implementation of the Basin Plan visit:

www.water.vic.gov.au

To find out more about the Basin Plan and the MDBA visit: www.mdba.gov.au

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