



Australian Government



Report summary:

# Conveyance losses in the River Murray System

In March 2019, the Murray-Darling Basin Authority published its first report into water losses in the River Murray system.

The report explains how system losses vary each year, due to a range of variable conditions, and how the MDBA works to minimise losses and operate the river system as efficiently as possible.

## Conveyance water & losses

Conveyance water is the **water needed to carry out the day to day operations of the river**, including the delivery of irrigation water. It includes water that is lost as part of operating the rivers.

Conveyance losses is the **volume of water which is lost to the system due to evaporation or seepage** into the ground as part of normal river operations. Losses vary from year to year, depending on seasonal conditions.

In response to the ongoing dry conditions in 2018-19, New South Wales and Victoria agreed to increase their conveyance losses budgets by 175 GL to 975 GL for conveyance between Hume Dam and the SA border. The extra 175 GL was shared equally between Victoria and NSW, in line with established rules. South Australia sets aside 696 gegalitres a year.

Under the Murray-Darling Basin Agreement (Basin agreement), **NSW and Victoria set water allocations for irrigation or other consumptive use after they have set aside the conveyance water.**

## Key findings

Conveyance losses to the end of January in the current water year were 665 GL. **Losses are projected to be between 850 GL and 1000 GL by the end of May.**

The losses are **best compared to dry years with similar conditions, such as 2015-16**, when losses were 849 GL.

## Causes of water losses

The main causes of conveyance losses in the River Murray system are evaporation and seepage.



**Evaporation rates** are affected by weather. Sustained hot, dry and windy conditions dramatically increase losses from evaporation.



**Seepage rates** are affected by rain, previous flows, high flows and bank and ground conditions. Extremely dry areas generally absorb more water than areas that remain moist from rain or previous flows.

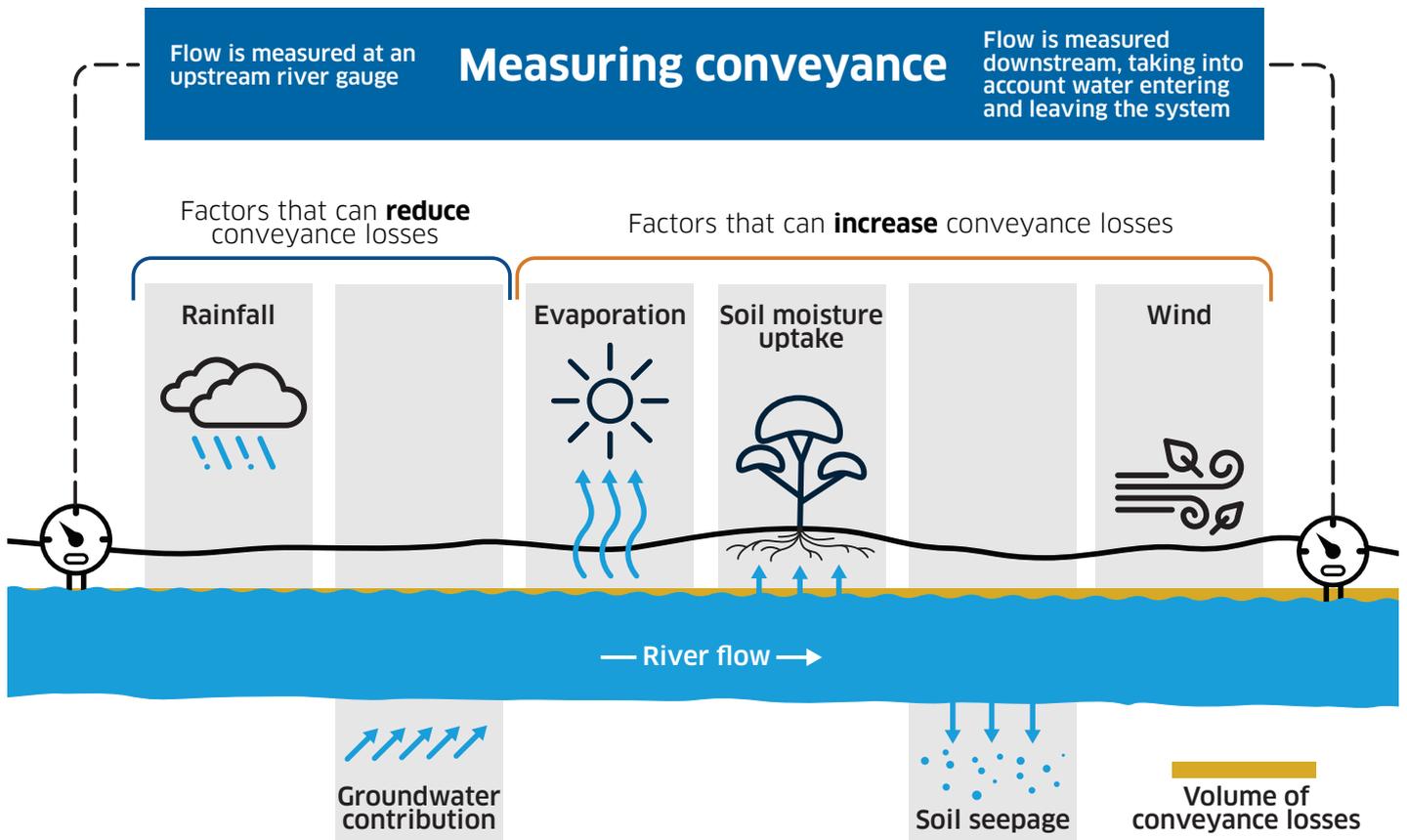


**Low rain and hot weather** are also factors in conveyance losses. 2018 was the hottest year on record for the Murray-Darling Basin, and the extremely low rainfall of the past two years has only happened twice since 1900.

2018 was the Basin's eight driest year and the driest the Basin has been since 2006.

## Minimising losses

**MDBA runs the rivers as efficiently as possible** to minimise losses, making decisions on when to move water based on how to best avoid evaporation and spills.



## Impact of low inflows

Inflows from main rivers in NSW and Victoria have been amongst the lowest on record and too low to increase the storage in Lake Victoria. This meant more water needed to be transferred from Hume and Dartmouth dams to Lake Victoria, to meet SA and lower Murray Summer demand.

Higher transfers included moving water through the Barmah-Millewa Forest to bypass the Barmah Choke. These transfers were timed to minimise losses from evaporation and potential spill from Lake Victoria if there was late Spring rain and inflows.

In Victoria, there was no large inflow contribution over Winter-Spring from the Ovens River to wet the Barmah-Millewa Forest and reduce losses when higher transfers commenced.

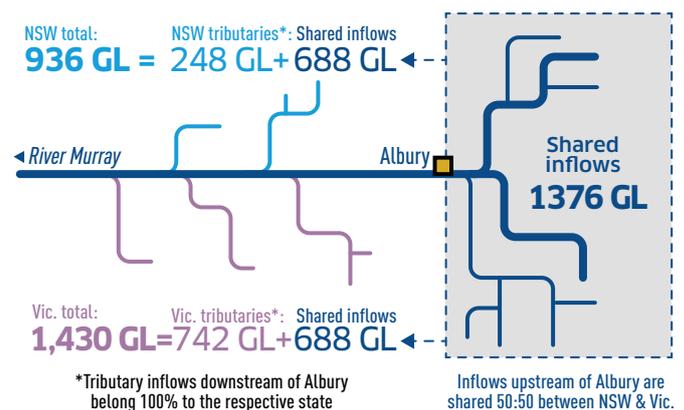
The MDBA was unable to draw on water from Menindee Lakes as control reverts to New South Wales when Menindee Lakes total storage falls below 480 GL.

## State shares

In line with the Basin agreement, conveyance losses between Hume Dam and the SA border are shared equally by NSW and Victoria.

For 2018-19 Victoria's share of total inflows are 60 per cent, compared to 40 per cent for NSW. The higher inflows for Victoria this year mean the state has more water available for entitlement holders.

### River Murray System inflows June 2018 to January 2019



### The Murray-Darling Basin



### For more information visit

[mdba.gov.au/conveyance-losses](http://mdba.gov.au/conveyance-losses)

### Office locations

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