

Critical water planning for the Murray Valley and Lower Darling

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Current water availability

During the past month there has been some good rainfall in the alpine regions, however, rainfall for the last month in the Murray Valley has been below average. Consequently, inflows into Hume and Dartmouth dams have been relatively small.

Similar circumstances have been experienced in the Snowy Mountains and there has only been a very minor improvement to the water availability from the Snowy scheme for the Murray Valley.

The most important news is the high flows in the Darling River from flooding in much of the north and central west of NSW around Christmas that is now starting to flow into the Menindee Lakes. These inflows will increase the water available to NSW users in the Lower Darling and, to a lesser extent, in the NSW Murray Valley.

Inflows to the Menindee Lakes system are expected to be sufficient to fill the two upper lakes of Wetherell and Pamamaroo and also allow a significant volume to be released to the Murray River.

As a result of the inflows into the Menindee Lakes, the general security allocation for licensed water users in the Lower Darling River valley has been increased from 25 per cent to 100 per cent of entitlement, and Broken Hill's town water supply is secured for at least 2 years.

The water released from the Menindee Lakes system that reaches the Murray River will increase water availability to NSW under the Murray-Darling Basin Agreement and has enabled the general security allocation in the Murray Valley to be increased by 3 per cent to 13 per cent of entitlement.

While water availability in the Murray Valley remains low, the volumes stored in the Menindee Lakes System may also contribute to the volumes required to deliver critical human needs and carryover in the Murray Valley in 2010/11.

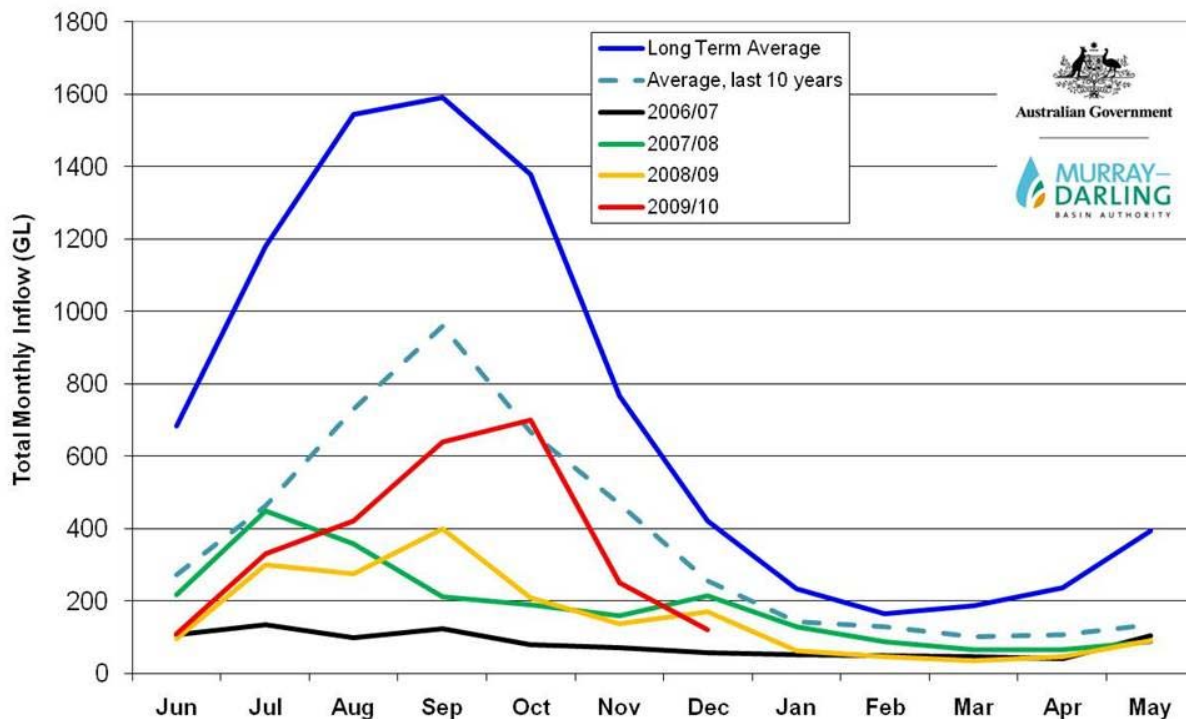
Rainfall summary

Location	From 11- 31 December (mm)	From 1-13 January (mm)	Total (mm)	January average (mm)	% of December average
Thredbo Village	95.8	67.2	163	104.7	156
Albury	13.8	18	31.8	49.8	64
Deniliquin	4.6	18.6	23.2	28.1	83
Mildura (airport)	4.0	8.8	12.8	20.7	62

The following table shows Murray Valley storage levels as at 10 December 2009.

Storage @ 13 January 2009	Volume (GL)	Percent of capacity	Change (GL) in Volume since 12 December	Approximate volume at this time last year
Hume Dam	949	25	-89	657
Dartmouth Dam	1195	31	-13	880
Menindee Lakes	145	8	- 12	132
Lake Victoria	347	51	-4	350
Total volume	2636			2019

Inflow graph



Inflows this year are similar to the low drought inflows of the last three years. This excludes the volumes in Menindee Lakes system

Management of the menindee lakes

The current forecast inflows to the Menindee Lakes are between 600 and 800 gegalitres. Unless there are significantly more inflows, this water will all be stored in the upper lakes of Wetherell and Pamamaroo and released into the lower Darling.

Unless there is further flooding upstream and inflows are expected to be at least 400 gegalitres higher than currently forecast, there will be no water diverted into Lake Menindee or Lake Cawndilla.

These lakes have been dry for about 5 years now and the seepage losses over such a large area, about 250 square kilometres, will be enormous. Further, there is significant dead

storage in both lakes and with high evaporation it will need about 500 gigalitres, equal to the volume of Sydney Harbour, to be diverted into the lakes to make this worthwhile.

Currently, the NSW Office of Water is proposing that when the current flow event finishes in mid to late February, the volume retained in Lake Wetherell and Pamamaroo will be about 480 gigalitres, which is the collective full supply volume.

The lakes may be surcharged, up to about 610 gigalitres. While the total volume stored in these lakes may temporarily exceed 480 gigalitres in the next month or so, it is only proposed to surcharge the upper lakes for a longer period if the releases to the Murray River will result in Lake Victoria filling.

Lower darling flows

Flows from the Menindee Lakes to the Lower Darling are being progressively increased over the coming week to about 9,000 megalitres per day. These will be maintained for up to two weeks depending on how long the inflows remain high, before being reduced slowly to base flow of about 250 megalitres per day. The slow reduction in releases reduces the potential for bank erosion and slumping.

Just as the management of the Menindee Lakes may change if there is additional inflows, so may the management of flows in the Lower Darling River. The NSW Office of Water will provide regular updates regarding these issues.

Trade

All other trades within the Murray Valley may occur under the same rules as for 2008/09 with trades continuing to be permitted from upstream to downstream of the Barmah Choke.

The NSW Office of Water has recommended is currently considering permitting trades out of the Lower Darling, subject to the appropriate protocols being approved by the Murray-Darling Basin Authority.

Carryover

The water sharing plan for the Murray-Lower Darling River valley remains suspended and will be introduced at the commencement of a water year only when the water availability is sufficient to ensure critical human needs, including town water supply for that year and a subsequent year.

Until then, carryover rules in the Murray and Lower Darling River valleys will remain as they have for the past two years.

That is, for 2010-11 licensed high and general security and conveyance entitlement holders will be allowed to carryover up any unused water from 2009-10, up to 100 per cent of their entitlement. Water use in 2010-11, which includes allocation plus carryover and any water traded out, will be limited to 100 percent of entitlement unless additional water is purchased in during that year.

Compliance

Despite the good flows in the Darling River, water availability in the NSW Murray Valley remains extremely low.

The NSW Office of Water's Drought Contingency Planning Program will only work if everyone adheres to the restrictions and is careful with **all** water use. To ensure that the system is run fairly, the community should report any suspected breaches to the Office's Compliance Unit on 1800 633 362 or by email to watercompliance@dwe.nsw.gov.au. All reports are confidential.

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