



NSW Government

Department of Water & Energy

## Critical water planning for the Murray Valley

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### CURRENT WATER AVAILABILITY

There has been very little rainfall throughout the Murray and Darling River catchments in the past month, except for parts of the Snowy catchments that received greater than average rainfall.

Rainfall over the period has included Thredbo Village receiving 186 millimetres (mm), Albury 55.2 mm, Deniliquin 22.4 mm and Mildura 21.4 mm respectively from April 12 to May 11.

This rainfall, combined with the onset of cooler temperatures, resulted in an improvement in water availability in the Murray Valley of approximately 30 gigalitres (GL).

The improvement in water availability in Snowy Hydro that will contribute to the Murray and Murrumbidgee Valleys will be assessed later in May.

The seasonal outlook for rainfall from now until the end of July is that the chance of median rainfall is slightly below average.

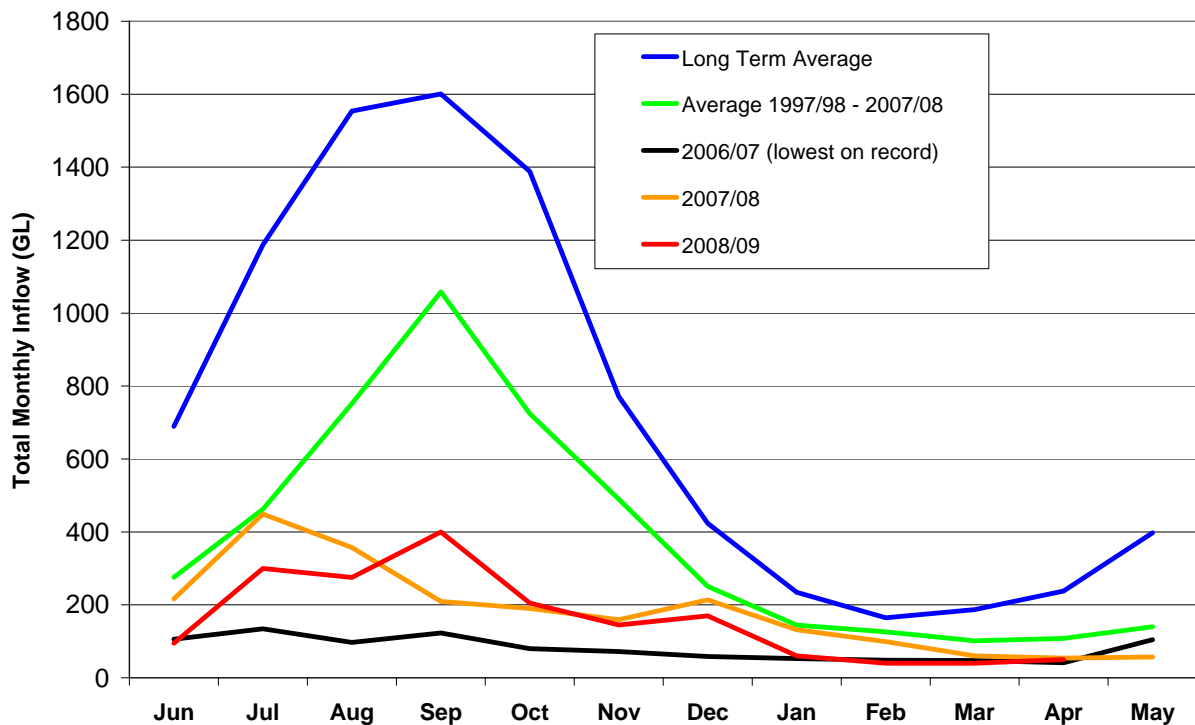
The following table shows Murray Valley storage levels as at May 11, 2009.

<b>Storage @ 11 May 2009</b>	<b>Volume (GL)</b>	<b>Percent of capacity</b>	<b>Change in Volume 12 April to 11 May (GL)</b>	<b>Volume at this time last year</b>
Hume Dam	132	4	+45	303
Dartmouth Dam	815	21	-10	680
Menindee Lakes	228	13	-19	566
Lake Victoria	140	21	-28	268
<b>Total volume</b>	<b>1315</b>			<b>1817</b>

Note: that Hume Dam reached its lowest volume of 64 GL - 2.1 per cent on 21 April 2009 and is now starting to rise.

There is considerably less water in the valley's storages than at this time last year, mainly because the volume stored in the Menindee Lakes system is significantly lower than in May 2008.

## INFLOW GRAPH



Inflows up until the end of April 2009 have been slightly more than the record low levels experienced in 2006/07.

## WHAT THIS MEANS

There is sufficient water reserved to provide for critical human needs and some domestic and stock needs, but not to provide all of the conveyance water required to deliver this throughout 2009/10.

If inflows remain low, the initial shortfall in conveyance water will be sourced from carry-over. This means that there may be insufficient water to guarantee the delivery of 100 per cent the carryover on 1 July 2009. The first inflows in 2009/10 will then be reserved to repay carry-over.

Even if inflows do remain low, it is expected that NSW Murray irrigators will have access to a minimum of 50 per cent of carry-over on 1 July 2009. This estimate is **preliminary** and is based on expected minimum inflows and it is proposed that a consistent approach will be adopted by NSW, Victoria and SA. There is still a very high probability that all the carry-over will be deliverable early in the new water year.

## DAM MANAGEMENT

Hume and Dartmouth dams are managed together, as if they were one storage.

Under normal operations, the water stored in Hume Dam is used first. This year the level has dropped very low (2.1 per cent on 21 April), which is a reflection of the very dry summer and autumn experienced in the Murray Valley. With the completion of the irrigation season and the onset of cooler weather demand has reduced and the release from Hume is now at minimum, about 1,200ML/day at Doctors Point.

The water level in Hume Dam is now starting to rise. This will continue as natural inflows are captured, along with inflows from the Snowy and transfers from Dartmouth.

## ALLOCATION PROCESS FOR 2009/10

The calculation of the water available in the valley in 2009/10 includes;

- the water in storage
- the minimum inflows to the storages and tributaries ever recorded (in this case the inflows recorded in 2006/07)
- the minimum volumes expected from Snowy Hydro (equivalent to the minimum recorded (2006/07)
- consideration of the maximum losses (evaporation and transmission) required to deliver all the available extractable water.

For 2009/10, the volume required for critical human needs in each State has already been set aside as has carry-over in NSW, Victoria and South Australia. After setting aside water to meet conveyance losses, additional water is distributed to the States using an agreed sharing process.

Water available to New South Wales required to deliver carry-over will be distributed within the valley to provide;

1. domestic and stock supplies in the mid Murray tributaries (as a pulse in the first instance) and in the Murray Irrigation Limited (MIL) channels.
2. High Security allocation and transmission losses in MIL.
3. General Security allocation.

## CARRYOVER

Carry-over from 2008/09 into 2009/10 is available for both High Security and General Security licence categories and does not include town water supply and stock and domestic.

Carry-over is limited to the 100 per cent of licensed entitlement. This means that if your licensed entitlement is 150 megalitres, this is the maximum that can be carried over. This includes all water traded in.

### **Water will be carried over automatically at the end of the water year.**

The total amount of water that can be credited to accounts in 2009/10 from carryover and announced allocation is 100 per cent of entitlement. That is, if water availability improves any volume that would otherwise exceed 100 percent of entitlement is forfeited.

Additional water is only available if purchased in 2009/10.

## MID-MURRAY TRIBUTARIES

Stock and Domestic supply and the environmental needs of the tributaries of the Murray is a high priority. However; while water availability remains critically low, the needs of all environmental, industry and community must be considered and balanced. Until there is a substantial improvement in water availability, regulated releases into the tributaries will continue to be made available by way of replenishment flows (pulses) until some General Security allocation is available.

Following the fish kills that occurred during 2009, the Department of Water and Energy will not release pulses into the tributary systems between the 1 December and 31 March. All replenishments will be made in consideration of the potential for environmental impacts.

## IN THE 2008/09 WATER YEAR

State Water have advised that Wakool River System supply points will be closed from 15 May 2009 as the replenishment of stock and domestic water has been delivered.

In total, 60GL has been delivered into this system during 2008/09 in two 30GL replenishment flows.

As the dry conditions continue, landholders are advised to ensure that they have made alternate plans for stock and domestic water supply. Strategies such as carting water may be required. Information on subsidies can be obtained from your nearest NSW Department of Primary Industries (DPI) office.

Landholders are reminded of the *Section 323 Order* issued by the Department of Water and Energy (DWE) under the *Water Management Act 2000*, restricting basic Landholder Rights, Domestic, and Stock use within the Wakool System. This restriction **remains in place** (50mm pump size limit - 5 megalitre volume limit - no irrigation).

Compliance breaches should be reported to DWE Compliance branch at [watercompliance@dwe.nsw.gov.au](mailto:watercompliance@dwe.nsw.gov.au) or 1800 633 362.

## FOR THE 2009/10 WATER YEAR

Until there is a significant improvement in water availability it is expected that these systems will be provided with a basic domestic and stock replenishment flow again.

## MANAGEMENT OF THE MENINDEE LAKES

The rainfall in northern NSW, mainly around Bourke in mid February 2009 resulted in inflows to the Menindee Lakes, sufficient to fill Lake Wetherell and pass a small volume through to the Lower Darling. The water remaining in Lake Wetherell is required to assure water supply to Broken Hill, as well as deliver High Security allocations and carry-over in 2009/10.

Unless there are significant inflows in the coming months there will be no further transfer, including trade of water from the Menindee Lakes system to the Murray River.

## TOWN WATER SUPPLY

Councils and town water supply authorities are asked to continue to be conservative with all water use. Councils and town water supply authorities should be prepared to reintroduce Level 4 restrictions on 1 July 2009.

Water used for domestic purposes in rural areas will be restricted to the same level as the relevant Local Government restrictions. This will apply to surface water and groundwater taken as basic landholder right or for stock and domestic purposes.

## TRADE

All water in accounts is tradeable under the same rules that applied in 2007/08. All trades (including interstate trades) **must** be lodged with State Water by 31 May 2009.

The rules applying to trades from upstream of the Barmah Choke to downstream and from out of the lower Darling River will cease on 31 May 2009, and will be reviewed for the 2009/10 water year.

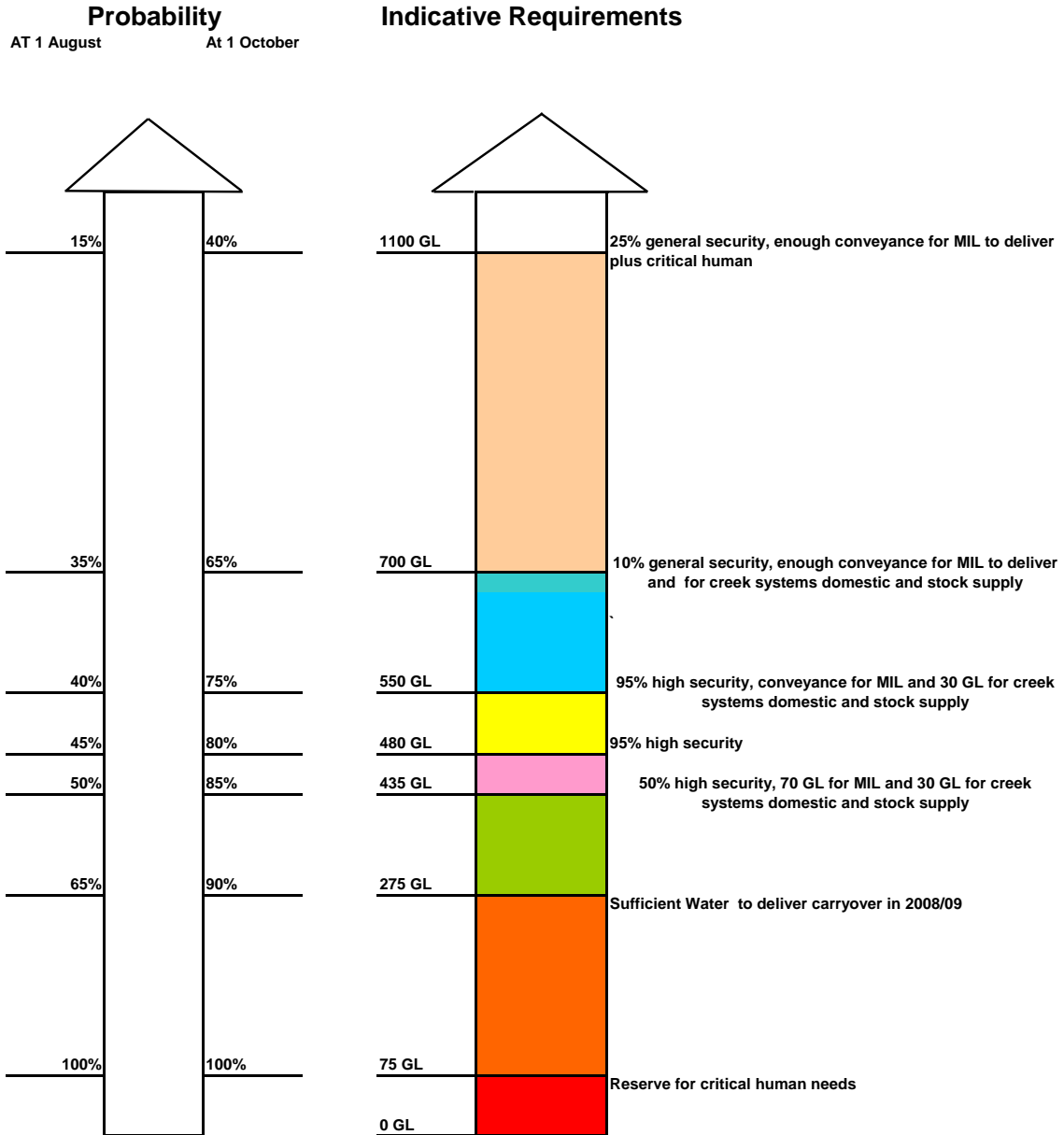
## COMPLIANCE

The Department of Water and Energy'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 Department's Compliance Unit on 1800 633 362 or by email to [watercompliance@dwe.nsw.gov.au](mailto:watercompliance@dwe.nsw.gov.au). All reports are confidential.

## WATER AVAILABILITY OUTLOOK

The figures that have been used to calculate this diagram are based on dry tercile and are very conservative. The volumes on the "rocket" are indicative only and subject to change.

## NSW Murray Valley Outlook



NOTE: The volumes above are indicative only, they may change depending on when improvements occur and if they are accompanied by heavy local rain. Management of improved allocations will be discussed with the Critical Water Advisory Committee.

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