River Murray Water Resources Report

Issue 32: 20 February 2009

Observations at a glance

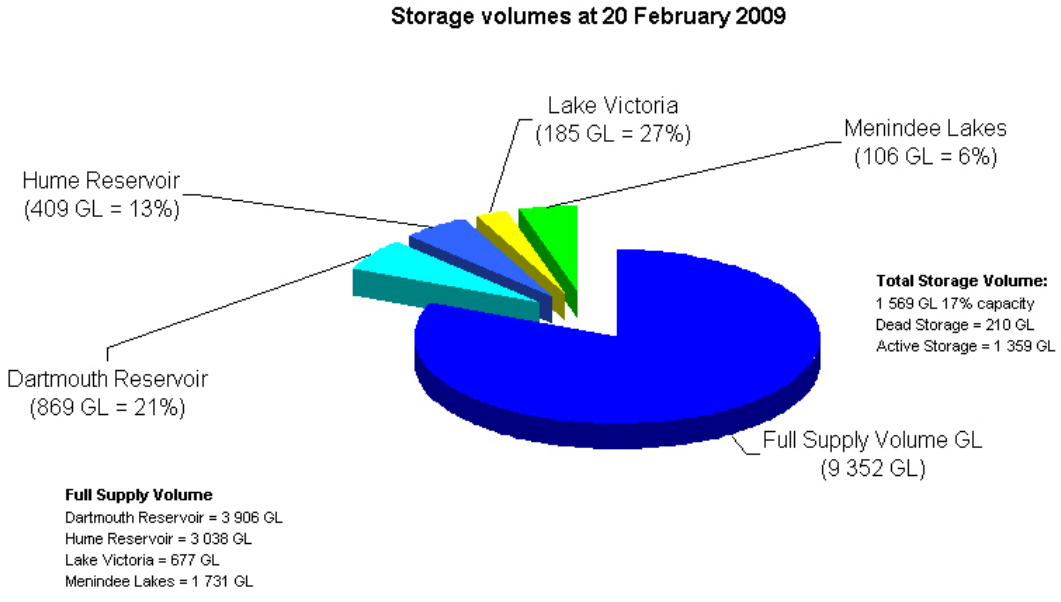
- River Murray irrigation allocations in South Australia remain at 18% as extreme drought conditions continue across the Murray-Darling Basin.
- The volume of water in upstream storages is currently 1 569 GL (17% capacity), compared to about 1 880 GL (20% capacity) at the same time last year.
- River Murray irrigators can again carry-over water for use next financial year, but applications must be received by 27 February 2009.
- Below Lock 1 water levels remain low and salinity levels remain high due to reduced flows into South Australia.

Murray-Darling Basin storages

The volume of water in storage in Hume and Dartmouth Reservoirs, Lake Victoria and Menindee Lakes is currently 1 569 GL (17% capacity), compared to about 1 880 GL (20% capacity) at the same time last year. Current storage levels are shown in **Figure 1**.

Releases from Hume Dam and Yarrawonga weir have been increased due to dry conditions persisting and to transfer water to Lake Victoria in order to meet irrigation requirements and also to provide water to South Australia.

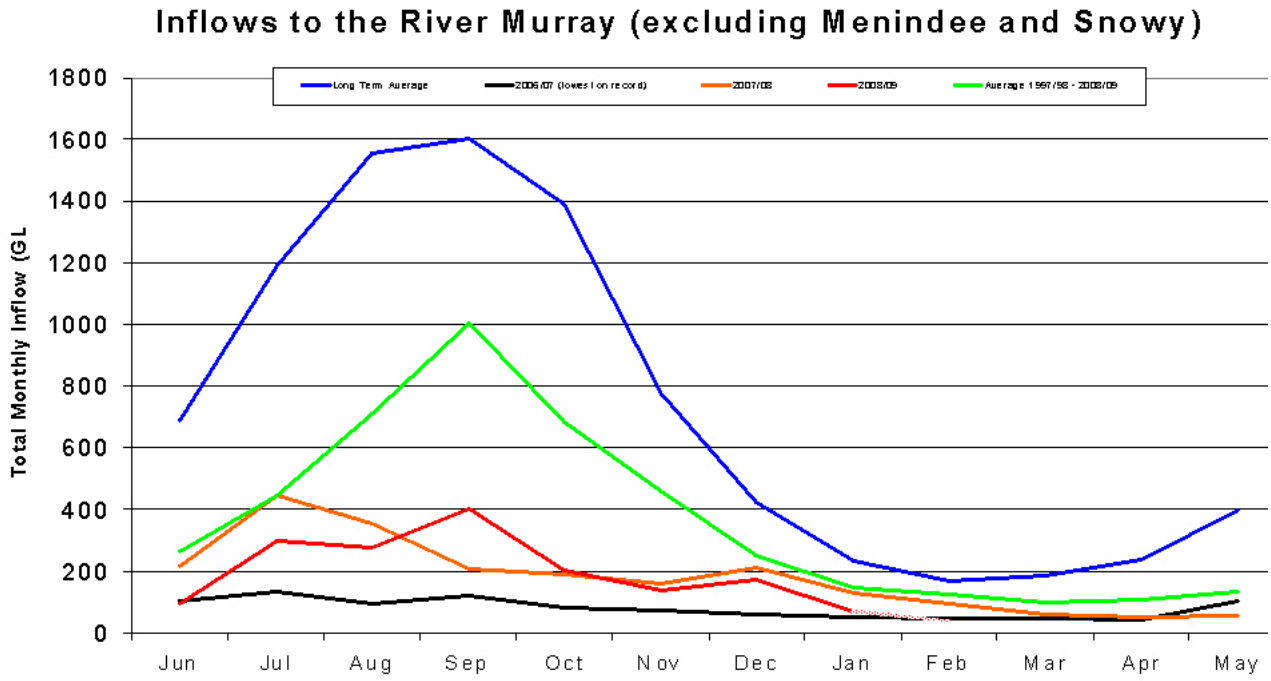
Figure 1: Murray-Darling Basin storages



River Murray inflows

Inflows into the River Murray system remain extremely low. From June 2008 to the end of January 2009 the total inflow was just 1 660 GL, compared to 1 930 GL for the same period last year, and the long-term average of 7 850 GL. However, February 2009 has remained extremely dry and inflows are expected to be in the range of the previous historic minimum of 60 GL, received in February 2007. The final inflow figure will be determined by rainfall and losses during the remainder of the month, but it is likely a new minimum inflow will be recorded based on current estimates. **Figure 2** shows monthly River Murray inflows.

Figure 2: River Murray inflows



The prospect of any significant improvement in River Murray water resources over summer remains low and recent flooding around Bourke is not expected to provide any improvement to South Australia. At this stage a small inflow of 30-50 GL is expected to reach Menindee Lakes depending upon further rainfall and transmission losses. There is currently 106 GL (6% capacity) in Menindee Lakes and the storage volume in Menindee Lakes needs to reach 640 GL before it reverts back to Murray-Darling Basin Authority control. When the volume reduces to 480 GL then NSW resumes control of the Menindee Lakes system.

River operations

Flows to South Australia have been reduced from 5 500 ML/day to 5000 ML/day due to cooler weather and lower losses. The normal entitlement flow for February is 6 929 ML/day. All weir pools are still below their normal full supply levels and this trend is likely to continue during summer due to reduced water availability. The flow over Lock 1 is ranging between 1 500 and 1 700 ML/day, depending upon weir pool operations.

Flows into South Australia will be reduced gradually towards the end of February 2009 to a target of about 4 000 ML/day during March 2009. Flow estimates are regularly revised taking into account both local rainfall and evaporation losses, and water is being conserved where necessary.

Table 1 shows the current levels of weir pools and minimum target levels for February 2009**.**

Table 1: River Murray weir pool levels

Location	Full supply level (m AHD)	Current weir pool level (m AHD)	Minimum target weir pool level (m AHD)
Lock 6	19.25	19.22	19.18
Lock 5	16.30	16.27	16.26
Lock 4	13.20	13.12	13.10
Lock 3	9.80	9.80	9.77
Lock 2	6.10	6.17	6.06
Lock 1	3.20	3.19	3.15

There is not enough water available to maintain all weir pools at the normal full supply level while maintaining flows over Lock 1 to allow for extractions and the annual flow of 350 GL past Wellington.

Water allocations in South Australia and interstate

River Murray irrigation allocations in South Australia remain at 18% as extreme drought conditions continue across the Murray-Darling Basin. View the Minister's latest allocations announcement at www.dwlbc.sa.gov.au/assets/files/MR_allocations16feb09.pdf

The latest information about allocations in New South Wales is available at www.naturalresources.nsw.gov.au/mediarelnr/mr_toc_currnr.html

The latest information about allocations in Victoria is available at www.g-mwater.com.au/news/media-releases/media-releases-2008/

Salinity and water levels

Salinity levels above Lock 1 remain fairly low. However, downstream of Lock 1 salinity levels remain high due to low water levels. Salinity in Lake Alexandrina (at Milang) is currently 5 808 EC compared to about 3 735 EC at the same time last year. Salinity in Lake Albert (at Meningie) is currently 9 590 EC compared to about 4 460 EC at the same time last year.

The water level in Lake Alexandrina (at Milang) is currently –0.91m AHD, compared to about –0.31m AHD at the same time last year. The water level in Lake Albert (at Meningie) is currently –0.50m AHD, compared to about –0.51m AHD at the same time last year.

Table 2 shows the current water levels and salinity at selected locations.

Table 2: Water and salinity levels

	Actual Water Levels at 20/02/09		Full Supply Level Level	Variation from Pool Level	Current EC Level
	U/S mAHD	D/S m AHD	U/S of Weir m AHD	U/S of Weir m AHD	
Lock 6	19.22	16.31	19.25	-0.03	293
Lock 5	16.27	13.24	16.30	-0.03	301
Lock 4	13.12	10.18	13.20	-0.08	358
Lock 3	9.80	6.29	9.80	0.00	379
Lock 2	6.17	3.30	6.10	0.07	427
Lock 1	3.19	-0.56	3.20	-0.01	494
Lake Alexandrina (Milang)	-0.91				5808
Lake Albert (Meningie)	-0.50				9590
Goolwa	-1.02				32 749
Water levels below Lock 1 are affected by wind and will vary throughout the day					
EC Readings below Lock 1 are daily averages and will vary throughout the day					

Carry-over option again available to irrigators

South Australian irrigators will be able to carry over all of their allocations not used in 2008-09 into the 2009-10 water year. This includes water previously carried forward from 2007-08 that remains unused at 30 June 2009.

Carry-over application forms must be lodged with the Department of Water, Land and Biodiversity Conservation (DWLBC) **on or before 27 February 2009**. Late forms will not be accepted.

The carry-over policy, application forms and further information is available at www.dwlbc.sa.gov.au/murray/drought/index.html#Carryoverwater

Rainfall summary

Good rainfall has been recorded in the northern Murray-Darling Basin over the past week. For example, so far this month Bourke has received 231mm. This compares to other towns within the Darling catchment that have received 32mm (Wilcannia) and 65mm (Brewarrina). Despite this rainfall only small inflows will occur due to high transmission losses and also local topography.

In southern areas rainfall has been significantly less with Lake Victoria recording no rain, Yarrawonga 4.8mm, Hume 1.4mm, Renmark 0.6mm and Meningie 1.2mm.

Information on rainfall summaries can be accessed from the Bureau of Meteorology website www.bom.gov.au

Weather outlook

The Bureau of Meteorology's outlook for February to April 2009 shows there is a 50-60% chance of exceeding median rainfall over the Murray-Darling Basin. It also shows there is a 60% chance of exceeding median maximum temperatures.

Further information on River Murray conditions and rainfall forecasts can be obtained from the following websites:

Department of Water, Land and Biodiversity Conservation **www.dwlbc.sa.gov.au**
SA Murray-Darling Basin NRM Board **www.samdbnrm.sa.gov.au**
Murray-Darling Basin Commission **www.mdbc.gov.au**
SA Water Daily Reports **www.riverland.net.au/%7Eheinz/ex-flow-frame.htm**
Bureau of Meteorology **www.bom.gov.au**
Queensland Department of Primary Industry **www.longpaddock.qld.gov.au**