



South Australia

River Murray Water Resources Report



Issue 7: 28 September 2007

Observations at a glance

- Low rainfall has continued across the Murray-Darling Basin during September 2007, significantly impacting on River Murray inflows.
- River Murray system inflows for September 2007 (excluding Snowy Hydro releases) will be about 195 GL, compared to the long-term median inflow for September of 1 460 GL.
- The inflows received for June to September 2007 were just 33% of the long-term median inflow for this period, further highlighting the severity of the current drought.
- Storage volumes continue to rise slowly but they remain well below the long-term average for this time of the year.
- River Murray salinity levels in South Australia continue to increase despite the daily flow being increased to 2 000 ML per day.
- Warmer weather has increased evaporation rates throughout the systems, resulting in reduced water levels in Lakes Alexandrina and Albert.

Summary of Murray-Darling Basin storages

Storage volumes at the end of September 2007 are expected to be about 2 110 GL (22% capacity) compared to 3 365 GL (36% capacity) at the same time last year. The long-term average storage volume for the end of September is 7 070 GL (75% capacity).

This extremely low storage volume means that the outlook for increased water availability during 2007-08 continues to be severely constrained and is much worse than at the same time last year, and compared to 2002-03 (see Figure 2)

Even with median inflow conditions into the storages for the remainder of 2007-08, the total storage

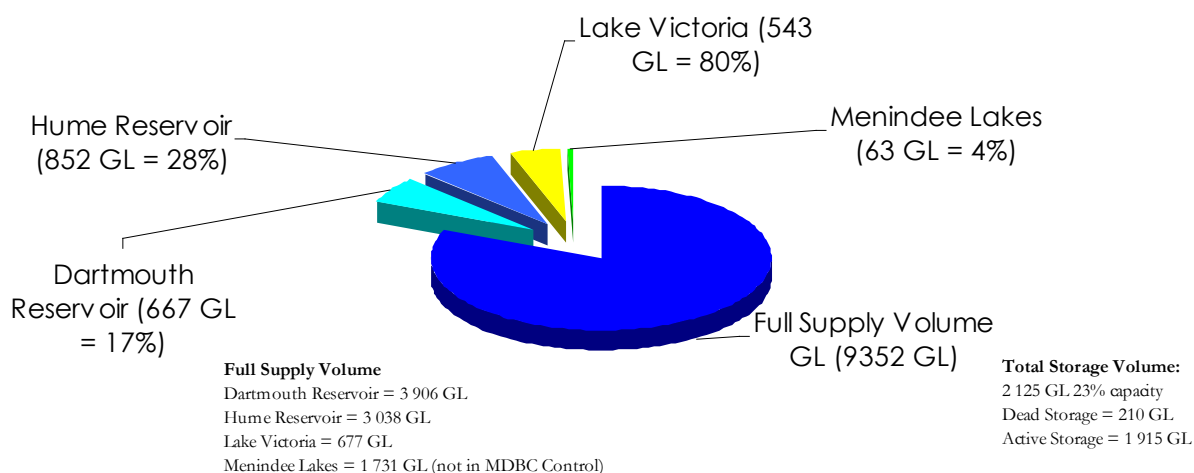
volume at the end of May 2008 is likely to be just 1 050 GL (a similar level to the end of May 2007). This highlights the possibility of no irrigation water being available at the beginning of 2008-09, but this is dependent on inflow conditions during the remainder of this year.

Without improved inflows the combined storage volume in Hume and Dartmouth Dams is likely to fall from now on. This is because the inflows from the Kiewa and Ovens Rivers are now insufficient to meet downstream requirements therefore releases of water from Hume reservoir are necessary.

Lake Victoria storage peaked at 556 GL (82% capacity) last week and is expected to be close to empty by the end of February 2008 without further inflows.

Figure 1: Storage volumes

Storage Volumes 27 September 2007



River Murray inflows

Low rainfall has resulted in extremely low River Murray inflows. Inflows from June to September 2007 were about 33% of the median inflows for that period. The September 2007 inflows have been reducing to near minimum inflows and are now below the levels observed in 2002-03 (but higher than at the same time last year – see Figure 3).

October and November are traditionally the last of the high inflow months and unless rainfall and inflows improve over these months there is a significant chance that storage levels will be extremely low by the end of May 2008. Contingency plans to save water are still in place and this includes blocking off non-regulated wetlands.

Figure 2: Inflows plus starting storage

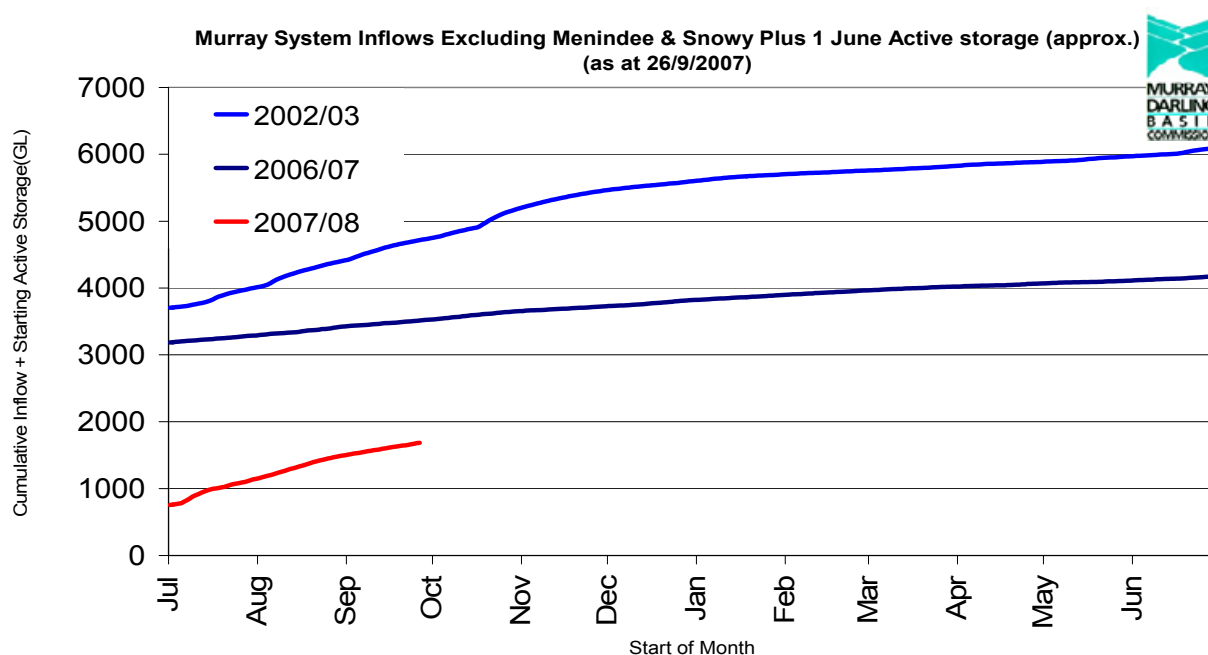
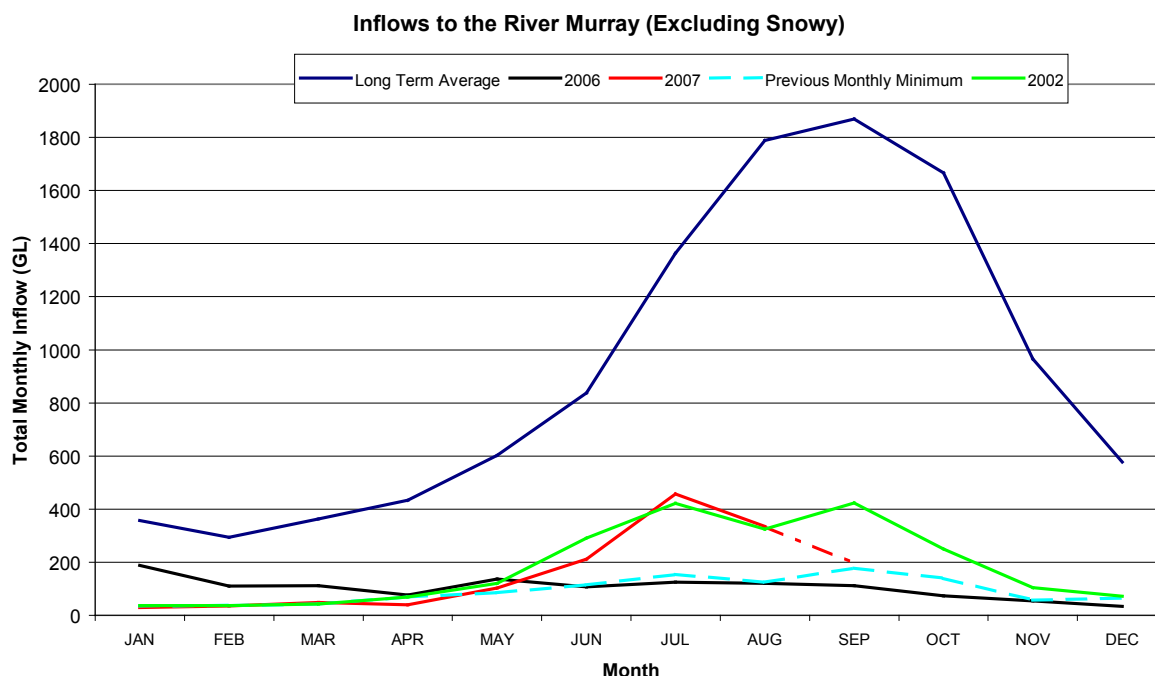


Figure 3: River Murray inflow comparison



South Australian River Murray water allocations

Minister for the River Murray Karlene Maywald announced that the capacity to take South Australian Murray annual irrigation allocations will be lifted to 16 percent for 2007-08 from 1 October 2007. This increase means that the full 120 GL available to South Australia for diversion under the revised water sharing rules has been fully allocated. The small increase does not indicate a significant improvement in the outlook for the River Murray. A copy of the media release is available at: www.dwlbc.sa.gov.au/assets/files/RM_MR_Irrigators11Sep07.pdf

The next time that more water may become available to increase diversions is when the total water available for allocation between the states exceeds 1 500 GL (excluding 333 GL losses from the SA Border to Wellington, 715 GL upstream of the SA Border and storage losses). The current resource position is that an additional 200 GL is required to bring the total water available to 1 500 GL.

Probabilities of improvement have been calculated based on the predicted flow to South Australia under different system inflow probabilities. These figures are dependent on various assumptions, including securing a reserve for 2008-09. The predicted flows outlined below in Table 1 have been modelled on the revised water sharing rules currently in place.

Table 1: Predicated flow scenarios to South Australia

		Predicted Monthly Improvement		
Scenario	Predicted End June 2008 Flow to SA	October 2007 (%)	December 2007 (%)	February 2008 (%)
Worst case (extremely dry)	815 GL	16	16	16
Dry Conditions	1 250 GL	16	18	20
Average Conditions	1 370 GL	30	32	41
These figures will be updated next month.				

SA River Murray operations

Flows to South Australia have been increased to an average of 2 000 ML per day compared to the normal September entitlement flow of 4 500 ML per day. The increase includes the delivery of a dilution flow of 700 ML per day to lessen the impact of rising salinity levels. Table 2 outlines the current water and salinity levels at selected locations.

This increased flow to South Australia will allow the Chowilla anabranch flows to be reinstated and the Lock 6 and Lock 7 fishways to be re-opened.

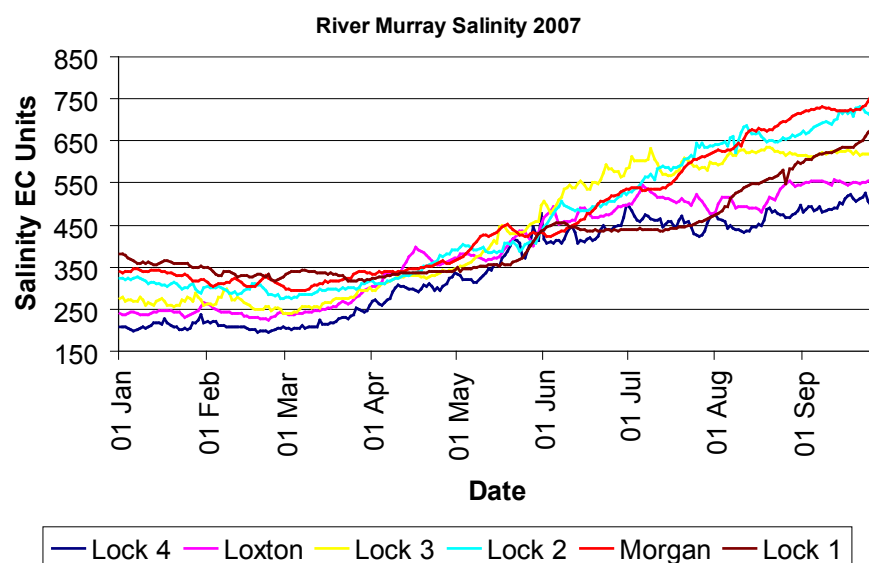
Salinity

Salinity at Morgan has increased from 300 EC in early March to 770 EC in late September. Salinity levels at many locations along the River Murray continue to increase, particularly within Lakes Alexandrina and Albert. Figure 4 outlines River Murray salinity levels at selected locations since January 2007, when significant reductions to the flows across the border were made.

Table 2: Water and salinity levels (at 27 September 2007)

	Actual Water Levels		Full Supply Level	Variation from Pool Level	EC Level
	U/S m AHD	D/S m AHD	U/S of Weir m AHD	U/S of Weir m AHD	
Lock 6	19.25	16.31	19.25	0.00	303
Lock 5	16.35	13.23	16.30	0.05	368
Lock 4	13.21	10.00	13.20	0.01	485
Lock 3	9.80	6.23	9.80	0.00	619
Lock 2	6.16	6.25	6.10	0.06	700
Lock 1	3.24	0.05	3.20	0.04	688
Lake Alexandrina	0.23				2329
Lake Albert (Meningie)	0.21				2630
Goolwa					12584
Lake Alexandrina and Albert water and salinity Levels based on 5 day average					
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					

Figure 4: River Murray salinity levels



Bureau of Meteorology outlook October to December 2007

In the runoff producing areas of the catchment in north-eastern Victoria, the chances of exceeding the median rainfall for the October to December period is 50%.

Across much of the southern section of the Basin the chance of above-normal maximum temperatures is 75-80%. This is a worrying prediction because higher temperatures will result in increased evaporation rates and crop water requirements.

Mount Lofty Ranges reservoir levels

Information on the volume of water held within the SA Water operated storages in the Mount Lofty Ranges can be accessed on the following website. These levels are updated daily and include the additional water pumped during 2006-07 (60 GL) for water quality purposes.

www.sawater.com.au/SAWater/WhatsNew/WaterDataUpdate/Reservoir+Levels.htm

Transfer fees for 'top up' water to be waived

The State Government will waive nearly \$400,000 in fees to transfer River Murray allocations to 'top up' annual water licences in 2007-08. Minister for the River Murray, Karlene Maywald, said waiving the fees would help to relieve the financial burden on irrigators for costs they would not normally incur because of water restrictions. If a fee has already been paid in 2007-08 for an annual allocation transfer, that fee will be refunded by the Department of Water, Land and Biodiversity Conservation. For further information view the full media release at www.dwlbc.sa.gov.au/media.html

Temporary disconnection of wetlands

On 25 September, Minister for the River Murray Karlene Maywald announced that work was continuing on the temporary disconnection of selected wetlands. These disconnections will reduce losses due to evaporation and prevent nutrient rich water from draining back into the River Murray. A copy of the media release is available at: www.dwlbc.sa.gov.au/media.html

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.rivermurray.sa.gov.au/AWMN/awsview.php
Murray-Darling Basin Commission www.mdbc.gov.au
SA Water Daily Reports www.riverland.net.au/%7Eheinze/ex-flow-frame.htm
Bureau of Meteorology www.bom.gov.au
Queensland Department of Primary Industry www.longpaddock.qld.gov.au

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