River Murray
Water Resources Report

South Australia

Government of South Australia

Issue 12: 11 February 2008

Observations at a glance

- River Murray system inflows for December 2007 were 225 GL, and 130 GL was received in January 2008.
- River Murray system inflows so far during 2007-08 have been about 2 000 GL, compared to the 935 GL received for the whole of 2006-07.
- The bleak outlook for River Murray system inflows in coming months has led to changes being made to the water sharing rules.
- South Australian irrigation allocations are likely to stay at 32% based on the new water sharing rules and current inflows into the River Murray and storages.
- South Australia is required to pay back water advanced for irrigation in 2007-08 and accumulate water for critical human needs in 2008-09 before any additional water can be allocated to irrigation allocations.

Summary of Murray-Darling Basin storages

The volume of water in Murray-Darling Basin storages is currently 1 868 GL (20% capacity), slightly more than at the same time last year (1 305 GL, 14% capacity). **Figure 1** outlines the current storage volumes in each of the major storages.

Figure 1: Volume of water in storage 11 February 2008

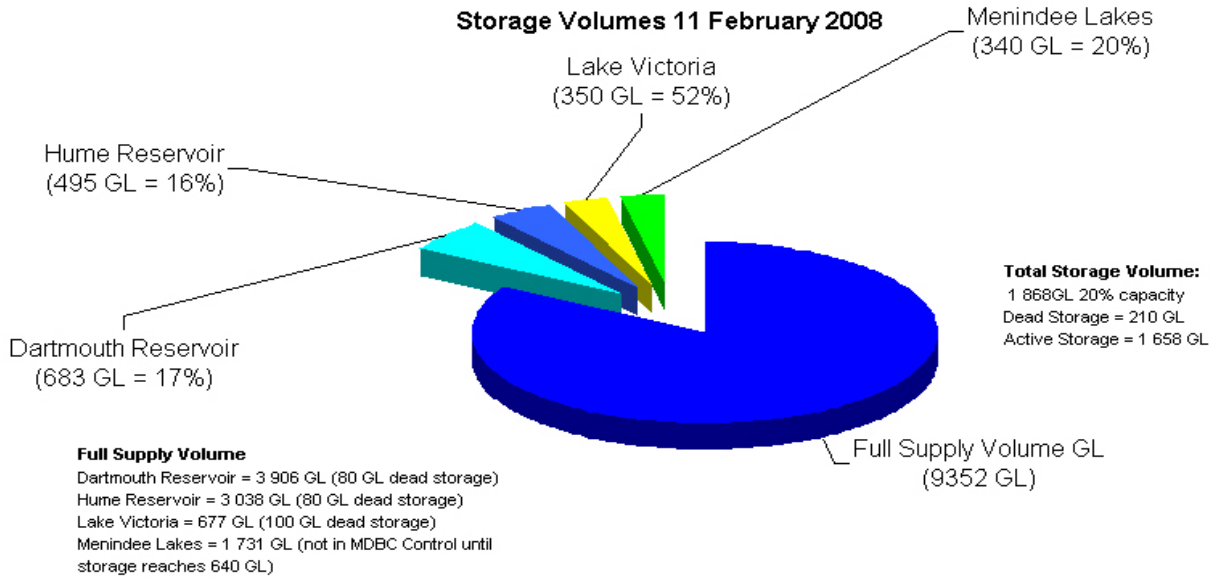


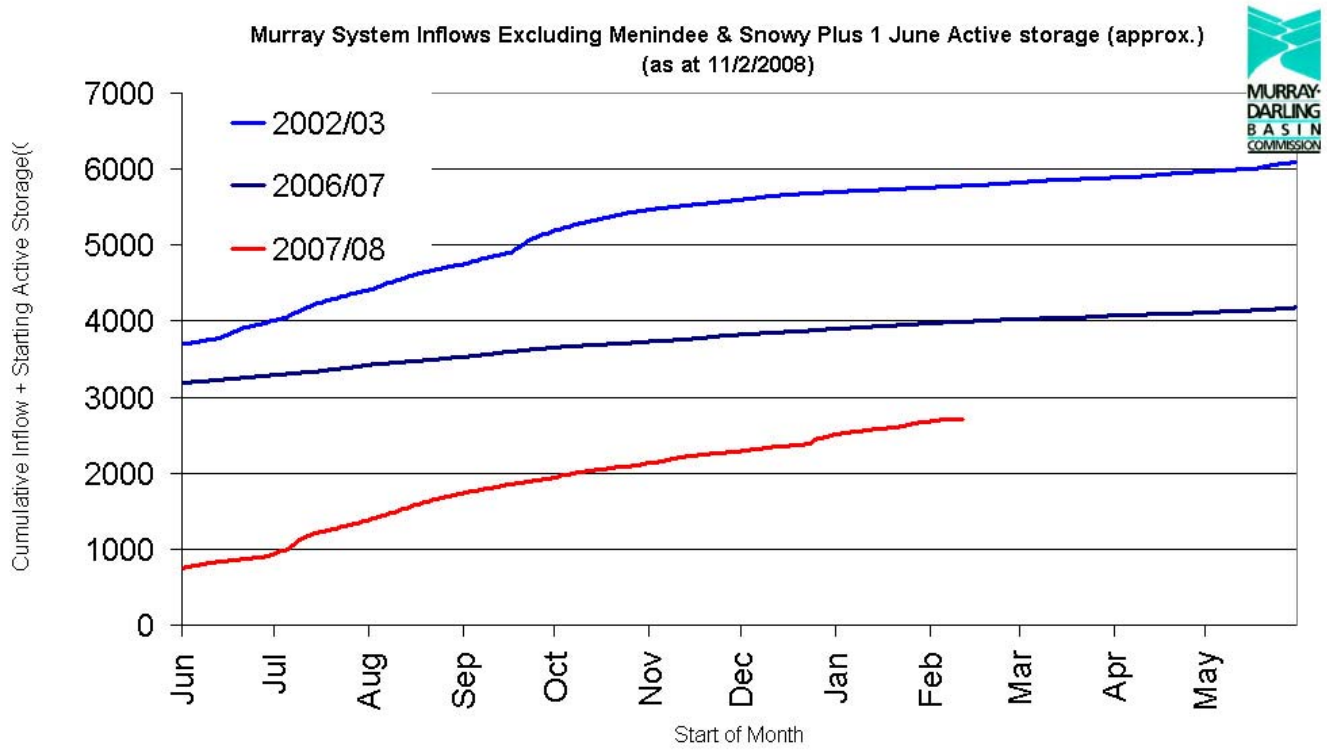
Table 1 outlines storage volumes in early February 2008 compared to same period in February 2007. Several years of above-average inflows will be required to return storages to long-term average storage levels and to help the River Murray system recover from the drought.

Table 1: Storage volumes

Storage	February 2008	February 2007
Dartmouth Reservoir	683 GL (17%)	761 (19%)
Hume Reservoir	495 GL (16%)	75 (2%)
Lake Victoria	350 GL (52%)	316 (47%)
Menindee Lakes	340 GL (20%)	153 (9%)
TOTAL	**1 868GL (20%)**	**1 305 GL (14%)**

Figure 2 shows River Murray inflows combined with the active starting storage volume during 2002-03, 2006-07 and 2007-08. This figure highlights the severity of the current drought.

Figure 2: River Murray system inflows and active storage



Murray Darling Basin Commission February 2007

Inflows and rainfall

During late December 2007 and January 2008 more than 200mm of rain in some areas of the Murray-Darling Basin, particularly in its northern catchments. Along the Darling River system flows have increased due to local rainfall and water flowing in from a number of river systems including the Warrego, Barwon, Bogan and Culgoa River systems. There has also been flooding in the Warrego, Condamine, Balonne and Border Rivers. Some of this water has started to flow into Menindee Lakes, which is currently at 340 GL (20% capacity). Menindee Lakes remains under NSW control until the volume of water stored exceeds 640 GL. Further rainfall and subsequent inflows from the northern rivers in the Darling River catchment and South West Queensland may increase the volume of water in Menindee Lakes to the extent that the lakes revert to Murray-Darling Basin Commission control. However, it is too early to predict this.

The NSW Department of Water and Energy is releasing 110 GL into the lower reaches of the Darling River. The first flush of this water is moderately saline and therefore it has been directed into Lake Victoria where it can be mixed with better quality water.

Only 130 GL flowed into the River Murray system during January 2008, compared to the long-term average of 235 GL. The southern parts of the Murray-Darling Basin still remains in serious drought and storage volumes remain at historically low levels for this time of the year.

River operations

If hot weather and low inflows continue over the coming months, there is a significant chance that storage volumes may fall to unprecedented low levels by the end of May 2008. New South Wales, Victoria and South Australia continue to review how water should be conserved in 2007-08 and methods for delivering water in 2008-09.

The daily flow into SA over January 2008 was increased to about 4 900 ML/day and this has helped to bring weir pool levels above Lock 1 back to their normal full supply level. Daily flow has since been reduced to 3 500 ML/day in early February 2008 to match estimated demands and losses. The salinity mitigation flow of 700 ML/day continues to be delivered. Salinity levels at Morgan have improved and have averaged 440 EC over the last week compared to an average salinity of 730 EC during September 2007.

Due to limited water available to South Australia, the water level below Lock 1 continues to decline and salinity levels continue to increase.

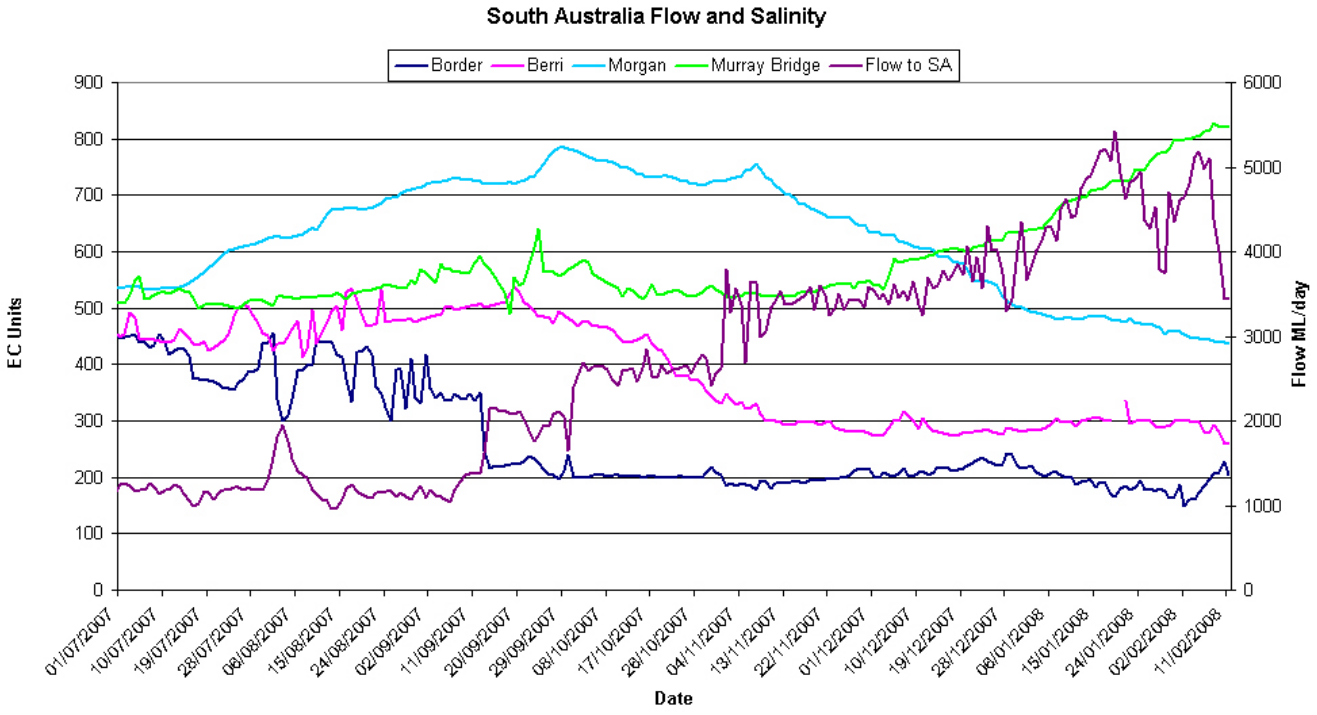
In Lake Alexandrina the water level is currently –0.30m AHD (30cm below mean sea level), the lowest level recorded since the barrages were constructed in the 1930s. Currently, the level of salinity in Lake Alexandrina (Milang) is 3 620 EC and in Lake Albert (Meningie) it is 4 460 EC.

Table 2 outlines the water level and salinity data at the weir pools and Lakes Alexandrina and Albert. **Figure 3** shows flows and salinity levels in South Australia.

Table 2: Flows and salinity levels in South Australia

	Actual Water Levels at 11/02/08		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	19.25	16.33	19.25	0.00	170
Lock 5	16.34	13.35	16.30	0.04	189
Lock 4	13.29	10.19	13.20	0.09	281
Lock 3	9.88	6.28	9.80	0.08	381
Lock 2	6.16	3.40	6.10	0.06	407
Lock 1	3.32	-0.11	3.20	0.12	535
Lake Alexandrina (Milang)	-0.31				3619
Lake Albert (Meningie)	-0.51				4460
Goolwa					24078
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 3: Flows and salinity levels in South Australia



Irrigation allocations/Revised water sharing arrangements

Minister for the River Murray, Karlene Maywald has announced that irrigation allocations will stay at 32% until imbalances in the way water has been shared between Murray–Darling Basin states are settled.

On 5 February, the Prime Minister and Premiers of South Australia, New South Wales and Victoria agreed to new sharing arrangements for River Murray water. Information about these arrangements, including a full copy of the Minister's media release and a Frequently Asked Questions document, is available at: http://www.dwlbc.sa.gov.au/murray/drought/index.html#RiverMurraywatersharingarrangements

Carry-over water

Minister for the River Murray Karlene Maywald says South Australian irrigators will be able to carry-over all of their allocations not used in 2007-08 into the 2008-09 water year. Carry-over water application forms must be lodged with the Department of Water, Land and Biodiversity Conservation between March 1 and 31, inclusive. Late applications will not be accepted. Further information, including application forms, can be found at www.dwlbc.sa.gov.au/murray/drought/index.html

Weather outlook

The Bureau of Meteorology has provided new weather forecasts for the period February 2008 to April 2008. These forecasts show there is a 50% chance of exceeding median rainfall and a 50% chance of exceeding the median maximum temperature across the southern Murray-Darling Basin during this period.

For further information visit: www.bom.gov.au/climate/drought/drought.shtml

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**