South Australia

River Murray
Water Resources Report

Government of South Australia

Issue 4: 17 August 2007

Observations at a Glance

- Over the past few weeks only light rainfall has been recorded in the runoff producing areas in north-eastern Victoria.
- Storage volumes continue to rise very slowly in Hume and Dartmouth Reservoirs due to releases being at low levels for operational requirements.
- Much of the flows in transit along the mid River Murray are from the unregulated tributaries such as the Ovens River.
- Lake Victoria's storage continues to rise as a result of the flows received below the Hume and Dartmouth Reservoirs.
- The outlook for above average rainfall over the next three months remains low – although this is usually the period when the highest inflows into the River Murray occur.
- Without substantial inflows during these months water availability will remain constrained as the November to May period does not typically produce substantial inflows.

Summary of Murray-Darling Basin Storages

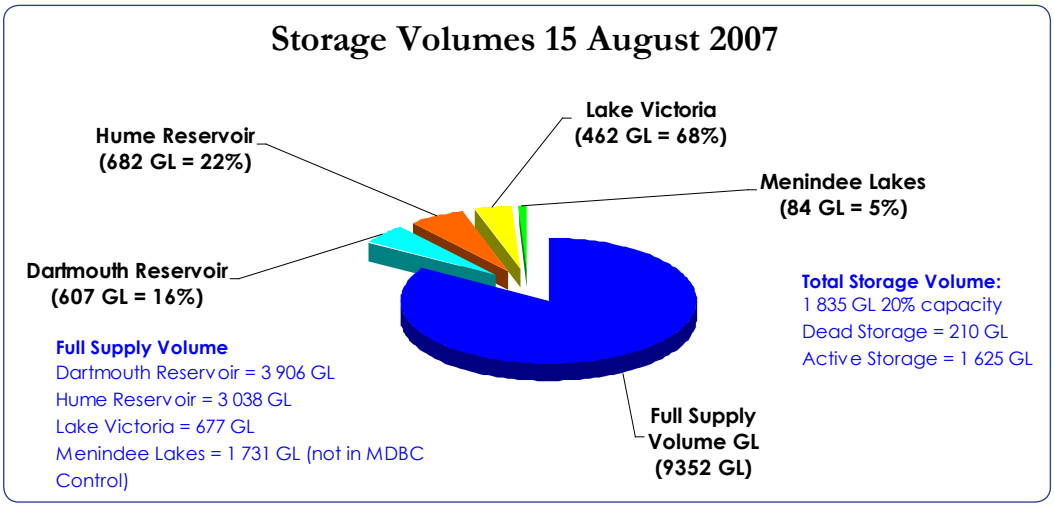
Reduced rainfall over the last few weeks has resulted in a decline in the amount of unregulated inflows into Hume and Dartmouth Reservoirs and into the River Murray.

The total volume of water currently in storage is about 1 835 GL (20% capacity). Of this volume, the active capacity is 1 625 GL and Menindee Lakes remains as a NSW resource. This compares to a storage volume of approximately 3 740 GL or 40% capacity at the same time in August 2006.

This extremely low storage volume means that the outlook for increased water availability during 2007-08 will be extremely constrained. The current total water resource position (taking into account both storage and inflows) is much worse than at the same time last year when the lowest inflows into the River Murray over the last 116 years were received.

There is a high chance (about 75%) that storage levels at the end of 2007-08 will be extremely low again.

Figure 1: Storage Levels



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 via the website below. These levels, which include the additional water pumped during 2006-07 (60GL) for water quality purposes, are updated daily.

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

River Murray Inflows

River Murray inflows still remain at extremely low levels due to the absence of above average rainfall. The inflows so far this year have been very similar to the levels observed in 2002 where the total inflow into the River Murray was only 2 190 GL. A repeat of these low inflows will have implications for water resource availability because of low storage levels in the headwater storages.

Inflows over the next three months are critical for the River Murray system and also for irrigation and river maintenance within South Australia. The situation remains very serious and contingency plans to save water are still in place.

Figure 2: River Murray inflows

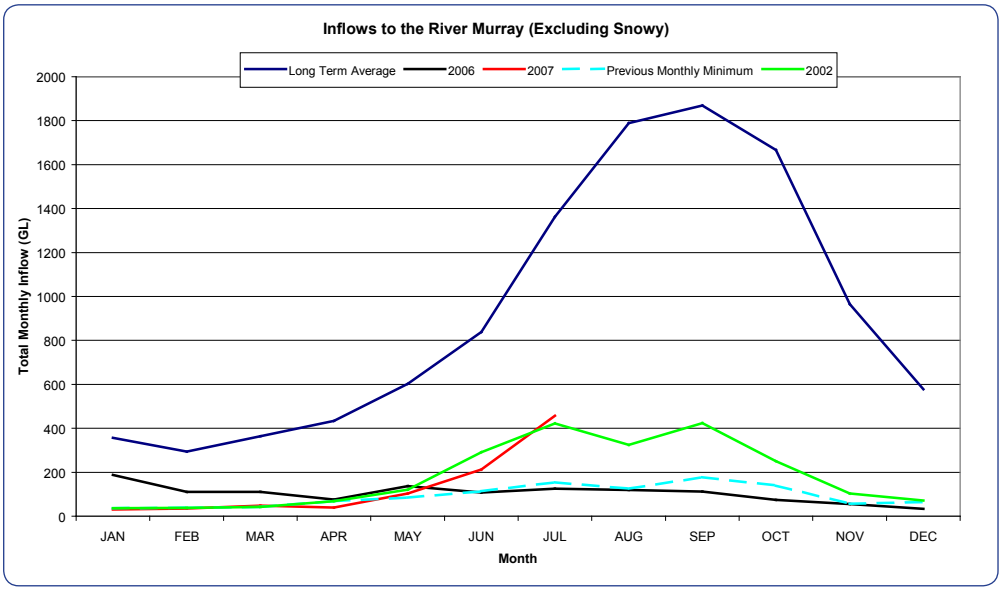


Table 1: Water and salinity levels (at 15 August 2007)

	Actual Water Levels		Full Supply Level	Variation from Pool Level	EC Level
	U/S mAHD	D/S m AHD	U/S of Weir m AHD	U/S of Weir m AHD	
Lock 6	19.18	16.28	19.25	-0.07	337
Lock 5	16.32	13.22	16.30	0.02	352
Lock 4	13.21	9.91	13.20	0.01	447
Lock 3	9.80	6.25	9.80	0.00	624
Lock 2	6.18	3.28	6.10	0.08	668
Lock 1	3.28	0.17	3.20	0.08	547
Lake Alexandrina	0.21				1820
Lake Albert (Meningie)	0.22				2505
Goolwa					15068
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					

South Australian River Murray Irrigation Allocations

South Australian River Murray irrigation allocations remain at 13% for the 2007-08 water year. Licensed water users must not exceed the authorised level of use at any time. Any additional water required above licensed allocations and approved carry - over must be obtained by trading water. The Department of Water, Land and Biodiversity Conservation will be regularly reading water meters to ensure people use water in accordance with their licensed allocation. Penalties exist for non-compliance. For further information contact the Drought Link hotline on 180 20 20

Bureau of Meteorology Outlook August – October 2007

The chance of exceeding the median rainfall for the August to October period across north-eastern Victoria (where significant inflows would normally enter the River Murray) is between 45-50%.
As this area of the Murray-Darling Basin suffered significant rainfall deficiencies during 2006-07, reduced inflows are expected even if average rainfall is received.

The chances for above-normal maximum temperatures are between 60% and 70% for much of the southern Murray-Darling Basin. This is a worrying prediction because if temperatures are high evaporation rates and crop water requirements will increase.

SA River Murray Operations

During 2007-08 it is important that plans for receiving below Entitlement Flows (1 850 GL/year) are in place. The River Murray has not previously been operated under extremely low flows for a significant period of time. In low flow years South Australia's dependence on the River Murray increases. Therefore it has been necessary to review the requirements on a month-by-month basis to ensure that flows match demands.

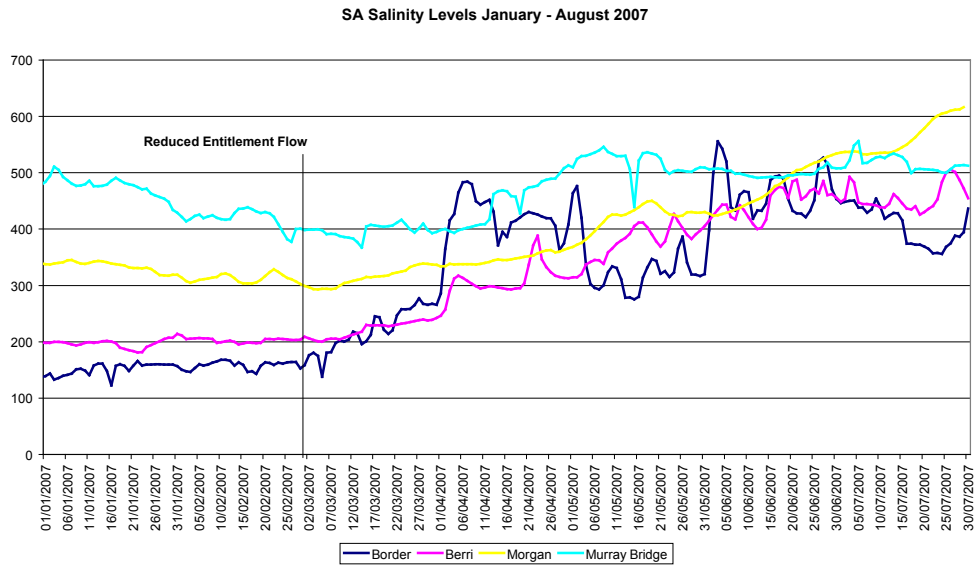
These demands include water for metropolitan Adelaide, country towns, irrigation, river maintenance requirements, and stock and domestic water allocations. During August 2007 the flow to South Australia will be maintained at about 1 120 ML/day, compared to the normal August Entitlement Flow of 4 000 ML/day. The current operating strategy aims to keep weir pool levels immediately upstream of the Locks at the normal pool level.

Since significant reductions to the daily Entitlement Flow occurred back in March 2007, there has been a gradual flattening of the weir pools, which means that there is very little gradient.

Because of the reductions to daily flows, salinity levels have been steadily increasing since March 2007. Figure 3 shows that salinity levels have been steadily increasing at Morgan, from 300 EC in March 2007 to 620 EC in mid August 2007. The long-term average since January 1982 is 560 EC.

It is expected that salinity levels will continue to increase should low flow conditions persist. Salinity levels in SA will also be sensitive to how the River Murray is operated, and salinity levels in the river at the border.

Figure 3: SA salinity levels January - August 2007



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/%7Eheinz/ex-flow-frame.htm**
Bureau of Meteorology **www.bom.gov.au**
Queensland Department of Primary Industry **www.longpaddock.qld.gov.au**