



South Australia

River Murray Water Resources Report



Issue 11: 21 December 2007

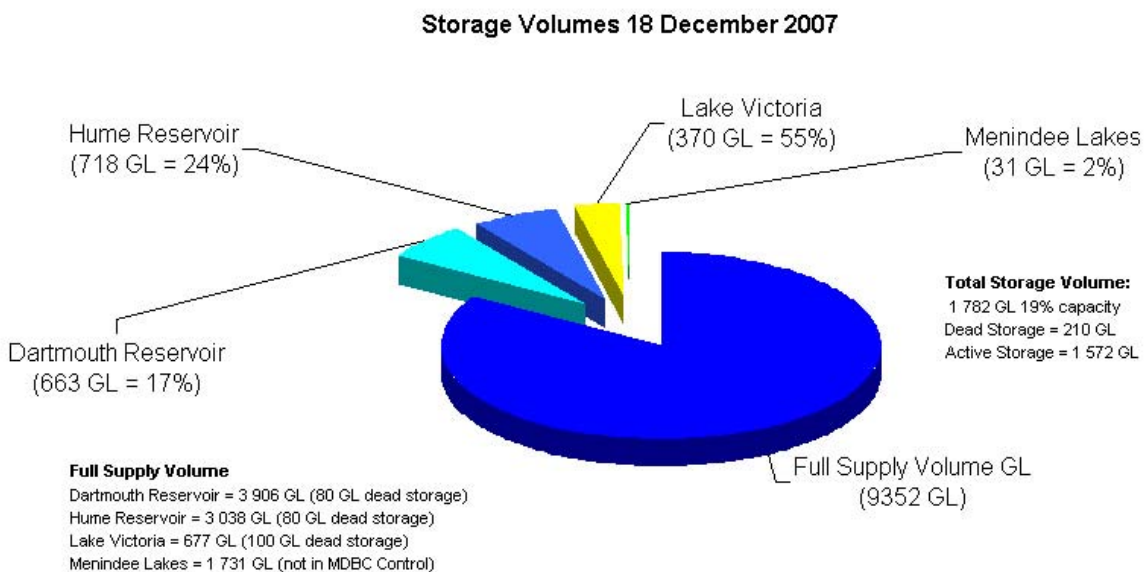
Observations at a glance

- While River Murray inflows have been better than 2006-07 levels, they remain well below the long-term median inflow.
- River Murray inflows during December 2007 are expected to be more than 130 GL, compared to the long-term median inflow for December of about 360 GL.
- The volume of water in storage continues to decline and is currently 1 782 GL.
- River operations are focused on minimising evaporative losses through the disconnection of wetlands and the lowering of some weir pools upstream of the South Australian border.
- Flow to South Australia has been increased to 3 800 ML/day from mid-December 2007.
- Water levels continue to drop below Lock 1 and salinity levels continue to increase both in the river and Lower Lakes due to the limited water available for dilution flows.

Summary of Murray-Darling Basin storages

The volume of water in the key Murray-darling Basin storages continues to fall because of the lack of rain and demand exceeding inflows. Significant inflows are needed for the storages to recover to more normal, or average operating levels. Several years of above-average inflows are needed to return to long-term average storage levels. The total storage volume at 18 December 2007 was 1 782 GL (19% capacity), significantly below the long-term average storage volume for the end of December of 6 610GL (70% capacity). **Figure 1** shows the current storage volumes in each of the major storages.

Figure 1: Volume of water in storage at 18 December



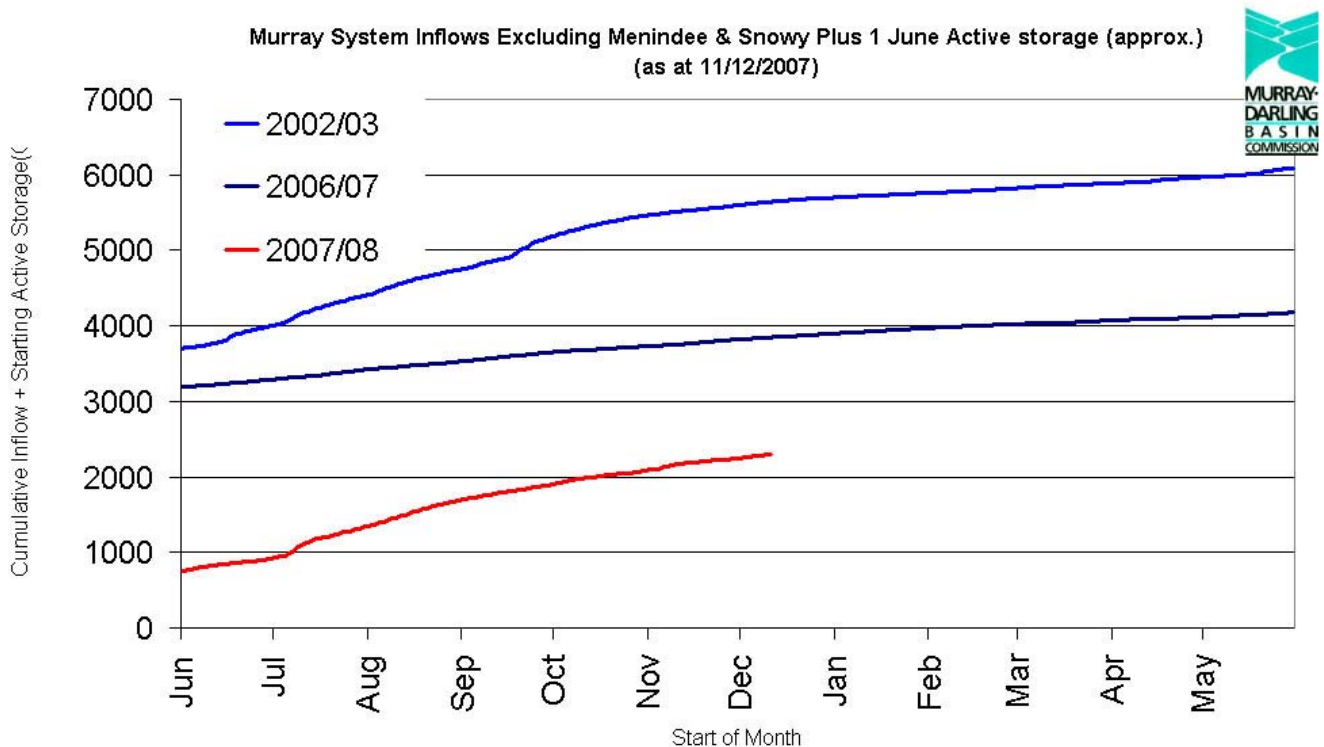
River Murray inflows

To date, inflows during 2007-08 have been better than at the same time last year, however they remain well below the long-term median inflows. The last two years has been the lowest two-year inflow period for the River Murray since records began 116 years ago.

Inflows for December 2007 are predicted to be more than 130 GL. This is well below the long-term median inflow for December of 360 GL, however higher than the inflow during December 2006 of only 35 GL.

Figure 2 shows the River Murray inflows plus the starting active storage for the 2002-03, 2006-07 and 2007-08 water years.

Figure 2: River Murray system inflows and active storage



Murray Darling Basin Commission December 2007

If hot weather and low inflows occur over the next few months, there is a significant chance that storage volumes may fall to unprecedented low levels by the end of May 2008. Currently there is a 75% chance that the water available for consumption at the start of the 2008-09 water year will be less than the volume available at the start of the current year. Contingency plans are being developed to secure water for critical supplies if inflows remain at low levels.

River Murray operations

The MDBC is conserving as much water as possible by using weir pools upstream of South Australia to supply downstream requirements. Lowering weir pools also reduces evaporative losses from the River Murray.

With the onset of summer, flow rates will be increased across the system to meet demand. The Murray-darling Basin Commission (MDBC) will continue to draw on downstream storages and retain water upstream. In addition to minimising evaporation, this will maximise the ability to capture potential inflows next autumn/winter, and also ensure there is as much water as possible in Dartmouth Reservoir by the end of the irrigation season.

A copy of the latest MDBC drought update can be obtained from www.mdbc.gov.au

In South Australia, the daily flow is being increased from 3 500 ML/day to 3 800 ML to provide for a target flow over Lock 1 of 1 200 ML/day. This is compared to the normal minimum entitlement flow of 7 000 ML/day. During December 2006 the average was 5 780 ML/day. The delivery of 3 800 ML/day includes the in-river salinity mitigation flow of 700 ML/day, which has been delivered since mid-September 2007.

Water for a contingency flow for algae management during 2007-08 has been set aside from South Australia's current dilution allocation. Flows to the state may be adjusted if this water is needed to break up any algae outbreaks.

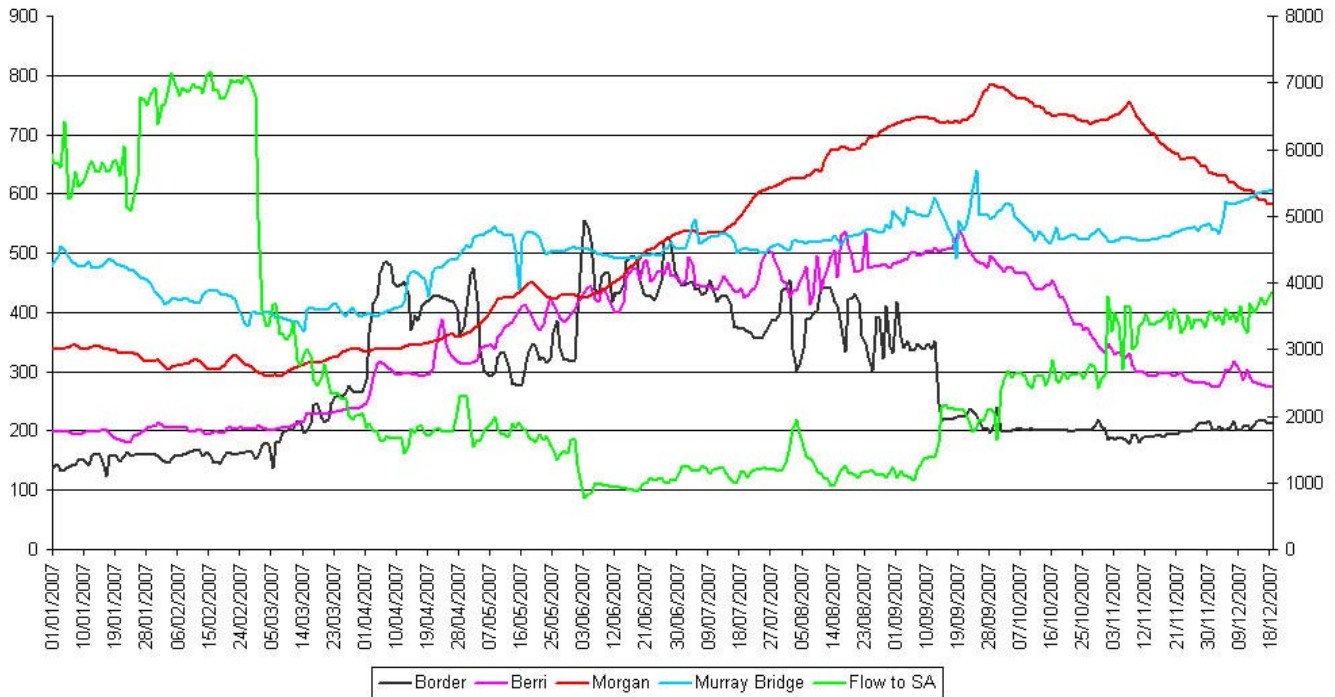
Weir pools are being maintained at or very close to full supply level immediately upstream of the weirs. **Table 1** outlines the water level and salinity data at the weir pools, Lake Alexandrina and Albert. **Figure 3** shows the flows to South Australia and the changes in River Murray salinity levels since January 2007.

Table 1: Water and salinity levels

	Actual Water Levels at 18/12/07		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	19.27	16.31	19.25	0.02	203
Lock 5	16.30	13.30	16.30	0.00	214
Lock 4	13.22	10.17	13.20	0.02	272
Lock 3	9.84	6.23	9.80	0.04	388
Lock 2	6.10	3.25	6.10	0.00	500
Lock 1	3.21	0.00	3.20	0.01	708
Lake Alexandrina (Milang)	-0.05				2964
Lake Albert (Meningie)	0.03				2993
Goolwa					21078
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 to South Australia and salinity levels

SA Salinity and Flow to SA



Weather outlook

The Bureau of Meteorology has provided new weather forecasts for the January 2008 to March 2008 period. These forecasts show there is a 40% to 55% chance of exceeding median rainfall, and a 65% to 75% chance of exceeding the median maximum temperature across the southern Murray-Darling Basin.

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

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