River Murray
Water Resources Report

South Australia

Government of South Australia

Issue 14: 11 March 2008

Observations at a glance

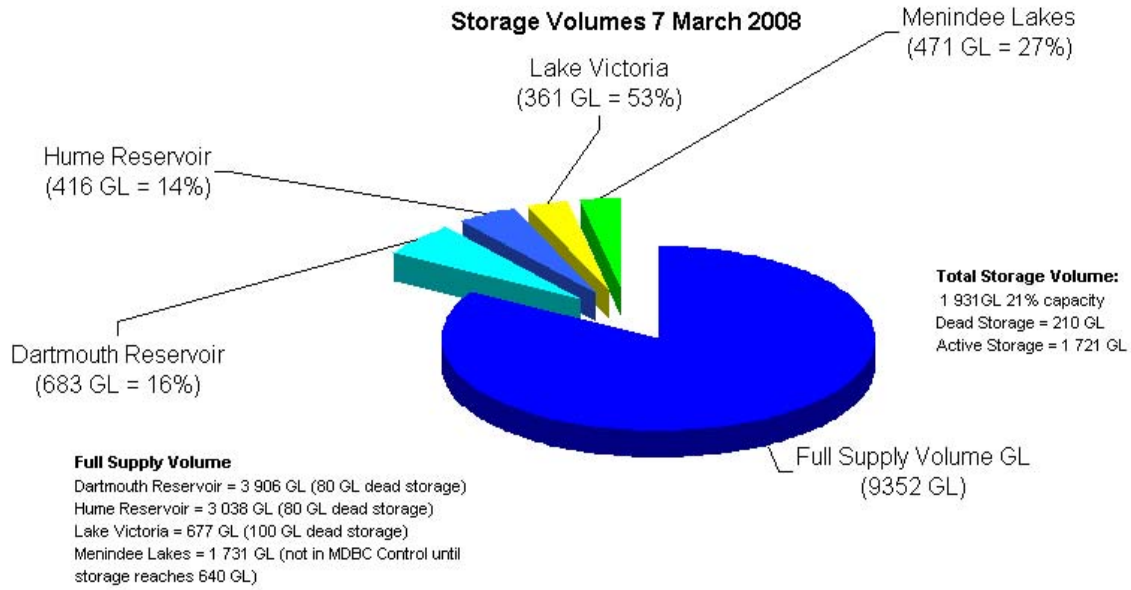
- Rainfall across the Murray-Darling Basin over the past two weeks was generally low and southern parts of the Basin received little or no rainfall.
- River Murray system inflows remain at low levels. About 100 GL flowed into the River Murray during February 2008.
- There is currently 1 931 GL (21% capacity) of water in storage.
- Flows to South Australia have been held at 3 500 ML/day, compared to the normal March entitlement flow of 6 000 ML/day.
- South Australian irrigation allocations will remain at 32% unless there are significant improvements in River Murray water availability over the coming months.

Summary of Murray-Darling Basin storages

Despite receiving near average rainfall across the Hume and Dartmouth catchments over the past few months, the outlook for 2008-09 remains poor and the River Murray system is still suffering from severe drought.

Total Murray-Darling system inflows over the past two years have been a record low. **Figure 1** outlines the current storage volumes in each of the major storages in the Murray-Darling Basin. The long-term average storage volume for the end of February is about 5 560GL, including Menindee Lakes. These storages will take several years of average rainfall and inflow conditions to recover from the current drought period.

Figure 1: Volume of water in storage at 7 March 2008



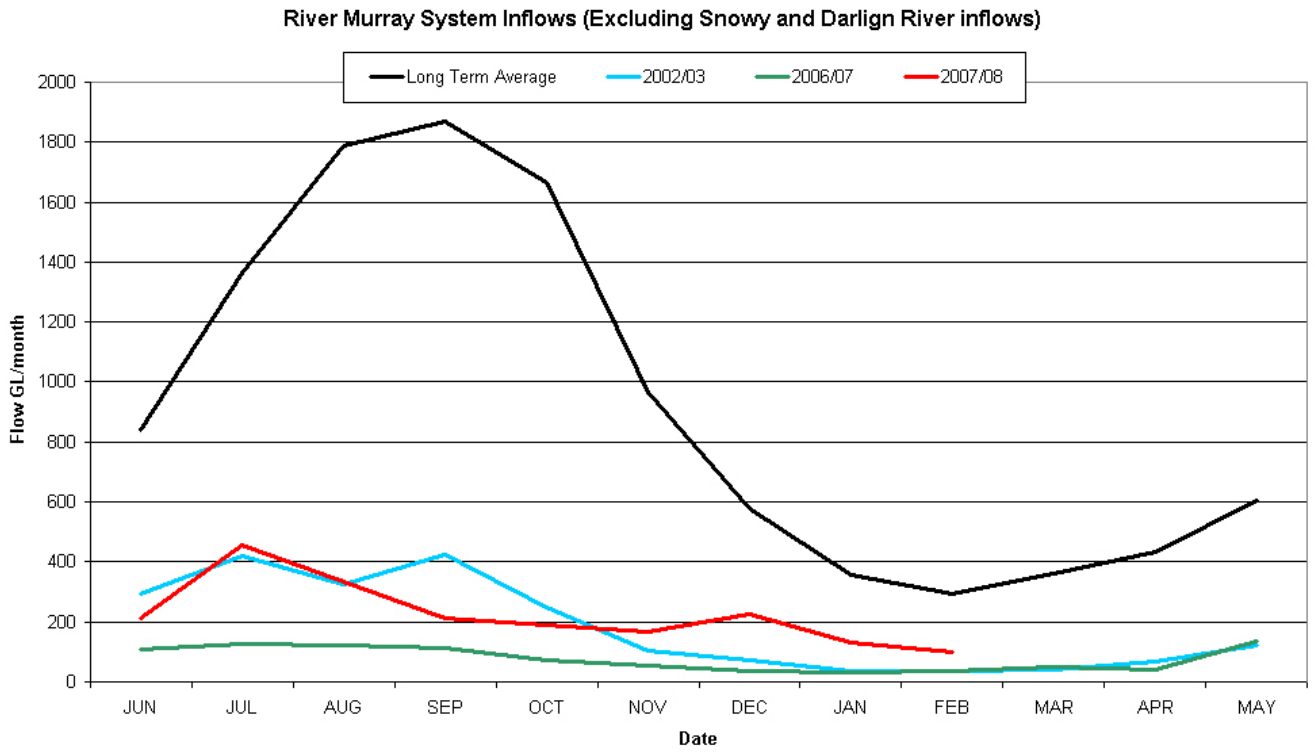
The volume of water in the Murray-Darling Basin storages is currently 1 931 GL (21% capacity) compared to 1 158 GL (12% capacity) at the same time last year. Storage volumes have remained stable over the past two months as a result of improved inflows into Menindee Lakes.

Menindee Lakes have benefited from heavy rain across southern Queensland and northern New South Wales. Moderate inflows into the Darling River from other river systems have improved the volume in the lakes. To date, more than 600 GL have flowed into Menindee Lakes. The volume in storage is currently 471 GL (27% capacity) compared to 140 GL (12% capacity) at the same time last year. Prior to these recent inflows, the lakes only held about 30 GL (2% capacity). Approximately, 110 GL have been released to users along the Lower Darling. Although some of this water has reached Lake Victoria, the water does not increase the volume available to South Australia, as this water remains a NSW asset under the current water sharing rules.

Rainfall and inflows

The recent La Nina weather pattern has resulted in above-average rainfall across much of the Murray-Darling Basin. This has provided good inflows in the northern parts of the Basin. The southern parts of the Basin, however, have recorded much lower rainfall, which is typical for this time of year. The main rainfall season for the southern Basin occurs in winter and spring and inflows do not usually recover until May and June each year (**Figure 2**). Inflows may therefore remain low until this time, even with average rainfall conditions.

Figure 2: River Murray system inflows



River operations

The Murray-Darling Basin Commission is conserving as much water as possible in the major storages to maximise water availability to NSW, Victoria and South Australia in 2008-09. This is being done through lowering weir pools and disconnecting wetlands from the main channel, which is helping to reduce evaporation.

South Australia's daily flow is 3 500 ML/day to match estimated demands and losses above Wellington for March 2008. The normal minimum March entitlement flow is 6 000 ML/day.

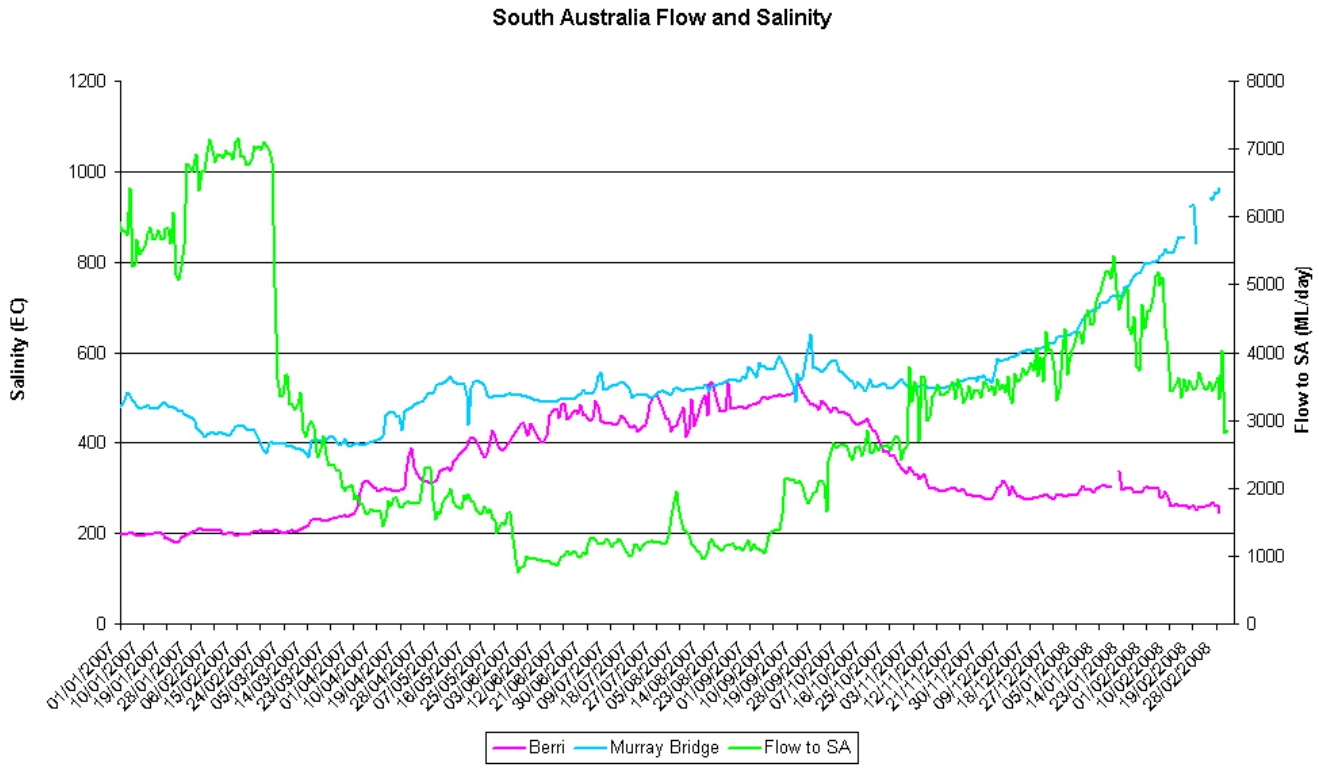
Above Lock 1, weir pools in South Australia remain at their normal full supply level and salinity levels remain low. However, below Lock 1 water levels continue to decline and salinity levels remain elevated as there is not enough water available to South Australia for dilution and river maintenance flows for below Lock 1. The salinity at Murray Bridge is currently 960 EC compared to 400 EC at the same time last year. In Lake Alexandrina, the salinity is currently 3 910 EC and the water level is currently –0.39m AHD (39cm below mean sea level). The water level in Lake Albert is currently –0.5m AHD.

Table 1 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 1: Water and salinity levels

	Actual Water Levels at 7/03/08		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	19.26	16.25	19.25	0.01	181
Lock 5	16.28	13.27	16.30	-0.02	207
Lock 4	13.21	9.98	13.20	0.01	237
Lock 3	9.79	6.22	9.80	-0.01	339
Lock 2	6.13	3.26	6.10	0.03	418
Lock 1	3.24	-0.33	3.20	0.04	479
Lake Alexandrina (Milang)	-0.39				3910
Lake Albert (Meningie)	-0.50				N/A
Goolwa					24282
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



Lake Albert reconnection project

The Murray-Darling Basin Ministerial Council has supported a $6 million emergency measure to pump water into Lake Albert from Lake Alexandrina to prevent soil acidification and reduce the risk of environmental damage. The project will involve 400 ML of water per day being pumped from Lake Alexandrina into Lake Albert. For further information about the project, including a frequently asked questions document, visit
http://www.dwlbc.sa.gov.au/murray/drought/index.html

Further information on acid sulfate soils along the Lower Murray is available from the CSIRO website:
www.clw.csiro.au/acidsulfatesoils/murray.html

Ministerial Council to meet in Adelaide

The next meeting of the Murray-Darling Basin Ministerial Council will be held in Adelaide on 23 May 2008. The Ministerial Council has recognised that the extreme drought has exacerbated the effect of continued low flows to the Lower Lakes, Coorong and Murray Mouth, resulting in some very serious environmental concerns and significant hardship for communities. The Ministerial Council has asked the Murray-Darling Basin Commission to provide a progress report on the condition of the Lower Lakes at its May 2008 meeting. The Commission has also been

asked to develop a range of risk management strategies and future management options – medium and long-term – for the Coorong and Lower Lakes that capture the best available science and strike a balance between the environmental, economic and social values of these sites.

Current water availability and irrigation allocations

Inflows during January and early February 2008 led to only a slight increase in available resources to be shared between South Australia, NSW and Victoria. Because of limited improvement in the shared resource volume, River Murray water allocations in South Australia will remain unchanged at 32%.

Carry-over and water trade

South Australian irrigators will be able to carry-over all of their allocations not used in 2007-08 into the 2008-09 water year. Water carried over will be tradeable in South Australia and interstate. Every effort will be made to ensure that carry-over water can be made available to irrigators from 1 July 2008; however, neither the date of availability nor the total volume available can be guaranteed.

River Murray water users who plan to buy or lease water during April, May and June this year will also be able to include this water in their applications for carry-over, as long as certain criteria are met.

Carry-over water applications must be lodged with the Department of Water, Land and Biodiversity Conservation before 31 March. Late applications will not be accepted. Further information about carry-over arrangements, including a second Frequently Asked Questions and Answer document, is now available at: http://www.dwlbc.sa.gov.au/murray/drought/index.html#Carryoverwater

Weather outlook

The Bureau of Meteorology has provided new weather forecasts for the period March 2008 to May 2008. These forecasts show there is a 45-55% chance of exceeding median rainfall, and a 40-45% chance of exceeding the median maximum temperature across the southern Murray-Darling Basin during this period.

Further information about the rainfall outlook is available at www.bom.gov.au

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**