



South Australia

# River Murray Water Resources Report



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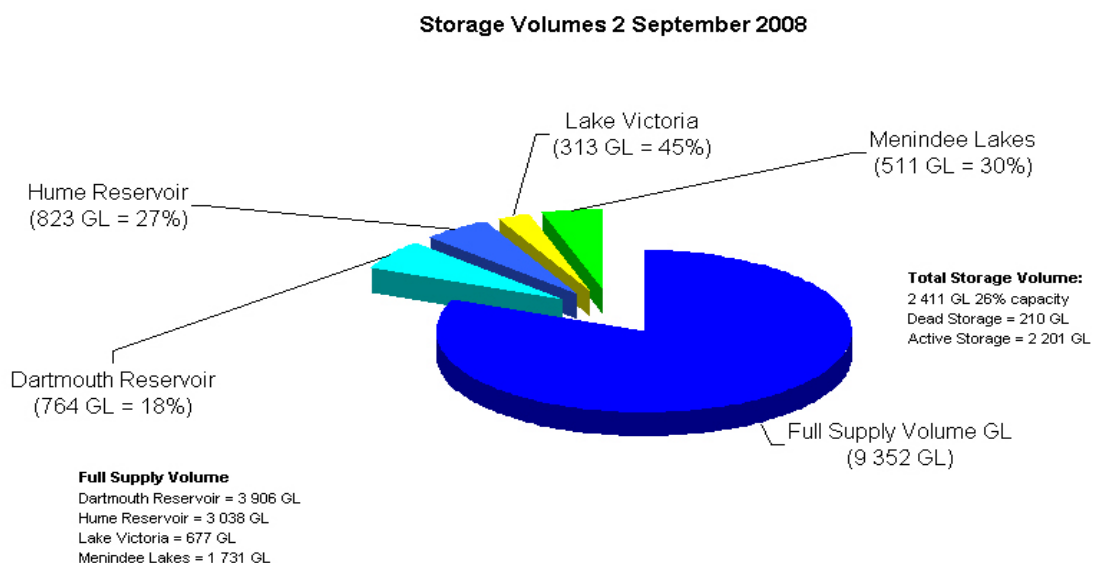
## Observations at a glance

- August rainfall was below average across the upper Murray catchment; however, inflows during the month have led to a small increase in the water available for sharing between the states.
- This small increase and any further improvements due to good rainfall in late August, mean that irrigation allocations are likely to increase by at least 2% from 1 October 2008;
- An announcement on irrigation allocations will be made on 15 September 2008 as is the usual practice;
- Despite these small improvements, River Murray system inflows remain critically low and the outlook for the River Murray system remains serious. Prospects for the coming season are still dependent on rainfall and runoff that are yet to happen.
- Flows to South Australia are currently averaging 2 000 ML/day and still provide for a flow past Wellington of 900 ML/day into Lake Alexandrina.
- Due to recent rainfall and inflows from some Eastern Mount Lofty Ranges tributaries the water level in Lake Alexandrina has improved by over 200mm since June 2008. However, acidification remains a threat to the Lower Lakes.

## Murray-Darling Basin storages

The volume of water in storage in Hume and Dartmouth Reservoirs, Lake Victoria and Menindee Lakes is currently 2 411 GL (25% capacity), compared to about 1 760 GL (19% capacity) at the same time last year. The long-term average storage for this time of year is about 6 730 GL (72% capacity). Storage levels are shown in **Figure 1**.

**Figure 1: Murray-Darling Basin storage volumes**



All water currently in storage and under Murray-Darling Basin Commission (MDBC) control, is fully committed for critical human needs for 2008-09, private carry-over for 2008-09, announced irrigation allocations, and river and storage losses (such as evaporation) that occur during the delivery of this water. Prospects for the coming season are still dependent on rainfall and runoff that are yet to happen.

The capacity of other storages in the Murray-Darling Basin on 1 September 2008 are:

- on the Murrumbidgee River, the Blowering Reservoir has 805 GL (48% capacity) and Burrinjuck Reservoir has 465 GL (45% capacity); and
- on the Goulburn River, Lake Eildon has 706 GL (21% capacity) and Waranga Basin has 135 GL (31% capacity).

## Impact of recent rainfall

During late August 2008 good rainfalls ranging from 30-130mm were observed over the northeast catchment in Victoria. It is too early to know the impact of this recent rainfall on inflows and water that may be available for sharing between the States. The Minister for the River Murray will provide advice on this in her next water resources announcement on 15 September 2008.

## River Murray inflows

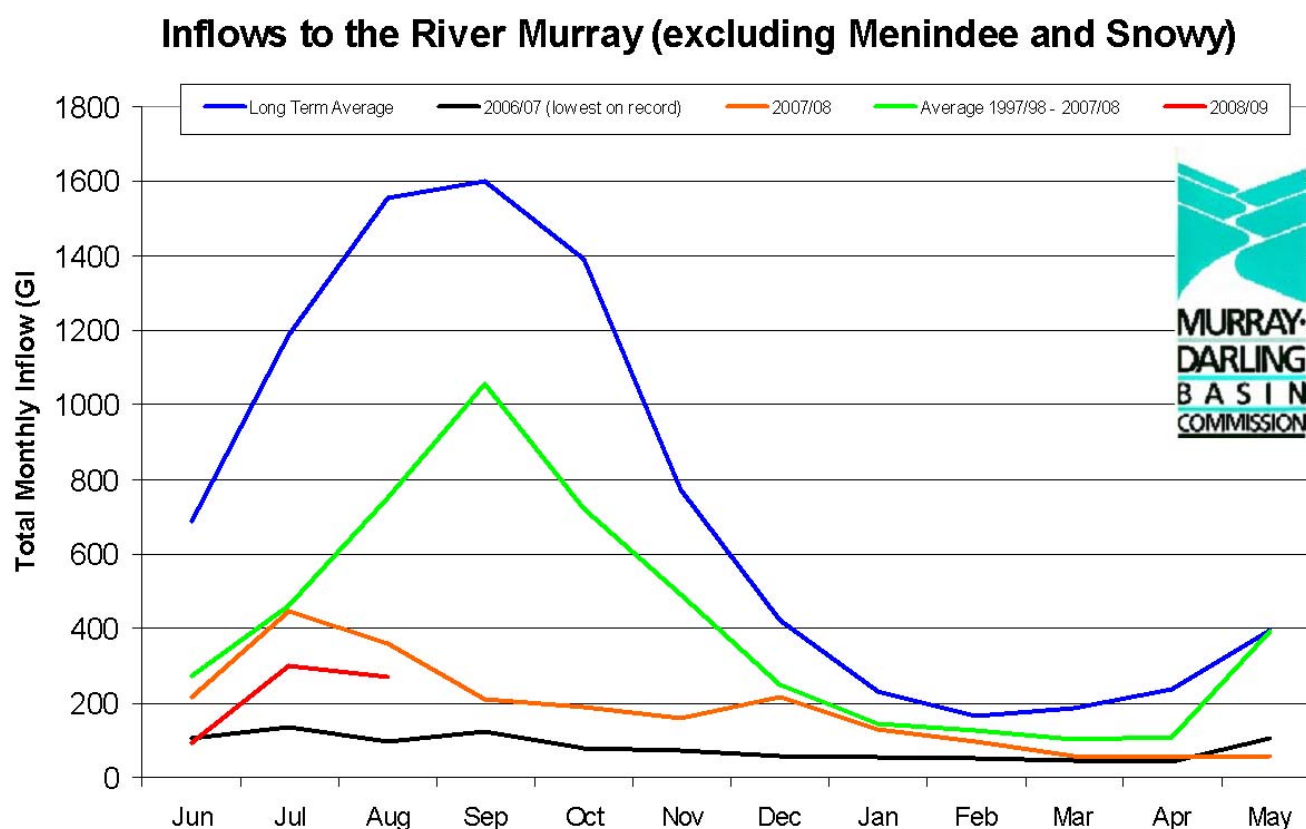
The River Murray system remains in severe drought. Inflows to the River Murray system during August 2008 are expected to be about 270 GL (excluding Snowy Hydro and Menindee Lakes) compared to the long-term average of 1 550 GL for the month. From June to the end of August 2008, inflows are expected to be only 665 GL, compared to the long-term average for that period of 3 430 GL. The inflow for the same period last year was 1 025 GL. **Table 1** below outlines inflows for August in 2008 and selected years.

**Table 1: August River Murray system inflows**

	August 2008	August 2007	August 2006	August 2005	August 2004	August 2003	Long-term average
Inflow (GL)	270	357	97	1 128	716	1 290	1 550

**Figure 2** shows the Murray system monthly inflows (excluding Darling inflows and Snowy releases).

**Figure 2: Murray system monthly inflows**



## State water allocation announcements

Irrigation allocations throughout the southern Murray-Darling Basin remain at historically low levels. The only area to have 100% for High Security allocations is the Lower Darling, and the total volume of these allocations is small. **Table 2** below outlines the current High Security/ High Reliability water shares.

**Table 2: Current High Security/High Reliability water shares**

High Security/ High Reliability Allocations	% as at 1 September 2008
South Australia	6%
NSW Murray High Security	25%
NSW Murrumbidgee High Security	60%
NSW Lower Darling High Security	100%
Vic Murray High Reliability Water Share	0%
Vic Goulburn High Reliability Water Share	0%

Irrigation allocations remain at 0% for all High Reliability Water Shares in Victoria. Goulburn Murray Water has indicated there is still a shortfall to irrigation allocations of 31 GL on the Murray and 29 GL on the Goulburn.

As a result of small improvements during August 2008 to the water available for sharing between the states, irrigation allocations in South Australia are likely to increase by at least 2% from 1 October 2008. An announcement on irrigation allocations will be made by the Minister for the River Murray on 15 September 2008, as is the usual practice.

## SA Water availability and allocation outlook

The Department of Water, Land and Biodiversity Conservation (DWLBC) produces a series of projections that show possible monthly increases to River Murray water allocations under various inflow scenarios during 2008-09. The latest projections are based on the end of July 2008 MDBC water resources assessment and can be viewed in full at:

[www.dwlbc.sa.gov.au/murray/drought/index.html#Waterallocationprojectionsfor200809](http://www.dwlbc.sa.gov.au/murray/drought/index.html#Waterallocationprojectionsfor200809)

As summarised in **Table 3**, the latest projections show there is a 75% chance of allocations increasing to 34% by the end of May 2009.

**Table 3: Possible Irrigation Allocations Under Different Inflow Scenarios**

Scenario	End September 2008	End November 2008	End January 2009	End March 2009	End May 2009
<b>100% chance (minimum inflows)</b>	6%	6%	6%	6%	6%
<b>95% chance</b>	7%	7%	7%	7%	7%
<b>90% chance</b>	8%	8%	8%	8%	8%
<b>85% chance</b>	10%	10%	10%	10%	10%
<b>75% chance</b>	14%	19%	28%	34%	34%
<b>50% chance</b>	27%	52%	58%	60%	60%

DWLBC updates these projections each month, based on the end of month water resources assessment undertaken by the MDBC. Planning decisions should take into account current inflow conditions and meteorological predictions.

## Flows to South Australia

Flows to South Australia are being maintained at 2 000 ML/day, compared to the normal September entitlement flow of 4 500 ML/day. Daily flows, water levels and salinities are available online at <http://data.rivermurray.sa.gov.au/>

## Salinity and water levels above Lock 1

Salinity remains fairly low between Lock 6 and Lock 1. Salinity at Morgan is currently 510 EC compared to 720 EC at the same time last year. Water levels in the weir pools are being maintained at, or very close to, full supply levels. **Table 4** shows the current water levels and salinity at selected locations.

## Salinity and water levels below Lock 1

Downstream of Lock 1 salinity levels remain high due to low water levels. Salinity in Lake Alexandrina (at Milang) is currently 3 933 EC compared to about 1 820 EC at the same time last year. Salinities are much higher upstream of the Goolwa Barrage around to Point Sturt.

Water levels have increased slightly in recent weeks due to localised rainfall, increased flows over Lock 1 (currently 1 840 ML/ day), and inflows from some of the Eastern Mount Lofty Ranges tributaries, mainly the Finniss River. The water level in Lake Alexandrina (at Milang) is currently -0.26m AHD, compared to about 0.21m AHD at the same time last year.

July and August rainfall across the lakes was above average for some locations. For example, the long-term average August rainfall for Meningie is 56mm and nearly 90mm was recorded this year.

**Table 4** shows the current water levels and salinity at selected locations.

**Table 4: Water and salinity levels**

	Actual Water Levels at 2/09/08		Full Supply Level Level	Variation from Pool Level	Current EC Level
	U/S m AHD	D/S m AHD	U/S of Weir m AHD	U/S of Weir m AHD	
<b>Lock 6</b>	19.24	16.27	19.25	-0.01	239
<b>Lock 5</b>	16.32	13.28	16.30	0.02	345
<b>Lock 4</b>	13.23	10.02	13.20	0.03	490
<b>Lock 3</b>	9.79	6.27	9.80	-0.01	522
<b>Lock 2</b>	6.17	3.37	6.10	0.07	530
<b>Lock 1</b>	3.26	-0.15	3.20	0.06	496
<b>Lake Alexandrina (Milang)</b>	-0.26				3933
<b>Lake Albert (Meningie)</b>	N/A				N/A
<b>Goolwa</b>	-0.23				16 016
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					

## Weather outlook

The Bureau of Meteorology predicts the chance of exceeding median rainfall for the southern section of the Murray-Darling Basin in the period September to November is 35-50%. There is a 55-60% chance of exceeding median maximum temperatures over the same period.

Further information on the weather outlook is available from [www.bom.gov.au](http://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](http://www.dwlbc.sa.gov.au)  
SA Murray-Darling Basin NRM Board [www.samdbnrm.sa.gov.au](http://www.samdbnrm.sa.gov.au)  
Murray-Darling Basin Commission [www.mdbc.gov.au](http://www.mdbc.gov.au)  
SA Water Daily Reports [www.riverland.net.au/~heinz/mdbcrep.htm](http://www.riverland.net.au/~heinz/mdbcrep.htm)  
Bureau of Meteorology [www.bom.gov.au](http://www.bom.gov.au)  
Queensland Department of Primary Industry [www.longpaddock.qld.gov.au](http://www.longpaddock.qld.gov.au)

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