

# RIVER MURRAY FLOW REPORT AND WATER RESOURCE UPDATE

## Flow to South Australia

Report #13/2012

Issued 10:00 am 30 March 2012

**This supersedes the previous flow report issued by the Department for Water on 23 March 2012. A further flow report will be provided on Thursday 4 April 2012.**

In this report, for ease of representation, large volumes of water are expressed in Gigalitres (GL), while smaller volumes are expressed in Megalitres (ML). One GL is equal to 1,000 ML.

### WATER RESOURCES UPDATE

The River Murray system inflow during February 2012 was approximately 380 GL, which is higher than the February average of 190 GL, but well below the record February inflow of 2,090 GL in 2011. Inflow conditions substantially improved during March 2012 due to a rainfall system that provided falls over a few days in excess of 300mm at some locations. The March 2012 inflow is expected to be a new record of around 1,800 GL, which greatly exceeds the long-term average of 220 GL, and is well above the 1,000 GL received in March 2011. This inflow will add to the volume of unregulated flow received by South Australia during April and May 2012.

These recent inflows have improved the storage volumes across the southern Murray-Darling Basin and with increased releases from Lake Eildon (Goulburn River), will contribute to the peak flow projected to arrive at the South Australian border during mid to late April 2012. Increased releases from Hume Reservoir are also occurring. This action is creating additional airspace to manage inflows during 2012-13, as the risk of spill is high. Pre-releases are designed to minimise the potential impacts on downstream communities and infrastructure.

Similar practices have occurred at Menindee Lakes over the last few months in response to recent rainfall events across Queensland and New South Wales. The flow events have generated high flows along the Barwon-Darling system. For example, more than 7,400 GL has flowed past Bourke and 2,800 GL past Wilcannia since 1 December 2011. Releases from Menindee Lakes continue to be managed at 35,000 ML/day in order to maintain airspace prior to the peak arriving at Wilcannia in early April 2012.

Most catchments remain wet with relatively full storages. The recent improvements in storage volumes means there will be a large volume of water available to each state at the start of the 2012-13 water year. This includes providing South Australia with its full 1,850 GL Entitlement Flow. In addition, water is already being reserved for South Australia's Entitlement Flow for 2013-14.

South Australia has received more than 6,200 GL since 1 July 2012, including a large volume of unregulated flow and also environmental water from the Commonwealth Environmental Water Holder. The extended duration of higher flow will allow for continued discharge through the barrages and some inundation of the floodplain.



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## STORAGE VOLUMES

Murray-Darling Basin Authority storage volumes at 28 March 2012 and 28 March 2011

Storage	Full Supply Volume (GL)	28/3/2012 (GL)	28/3/2011 (GL)	Long-term average (end March)
Dartmouth	3,856	3,166 (82%)	2,401 (62%)	
Hume	3,003	2,710 (90%)	2,816 (93%)	
Lake Victoria	677	507 (75%)	455 (67%)	
Menindee Lakes	1,731*	1,489 (86%)	1,877 (108%)	
<b>TOTAL</b>	<b>9,267 (100%)</b>	<b>7,872 (85%)</b>	<b>7,549 (81%)</b>	<b>5,504 (59%)</b>

\*Menindee Lakes can be surcharged to 2,015 GL

## RAINFALL OUTLOOK

The latest Bureau of Meteorology (BoM) rainfall outlook for April to June 2012 indicates that large parts of eastern Australia are likely to experience above average rainfall. This outlook is due predominantly to warmer than normal waters in the Indian Ocean. The 2011-12 La Niña event has now ended, with key indicators returning to neutral levels. Climate models surveyed by BoM suggest that neutral conditions will persist until at least early winter.

## ALLOCATION OUTLOOK FOR 2012-13

On 28 March 2012, the Minister for Water and the River Murray, Paul Caica, announced that South Australian irrigators would begin the 2012-13 water year with 100 percent allocation, for the second successive year.

Minister Caica stated that “given the current conditions, South Australia is prevented from deferring and storing entitlement flow for carryover under the Murray-Darling Basin Agreement, therefore there will be no ability to carryover water into the 2012-13 water year”. The Minister also stated that “given irrigators will have 100 percent of their allocation, they should have enough water to meet their normal production without the need to use carryover”.

## FLOW OUTLOOK

During the past week, the flow increased to above the 50,000 ML/day predicted in last week’s flow report. This was due to a combination of high flow from recent rainfall and changed operations at Lake Victoria.

It is important to note that flow forecasts in this advice are based on preliminary predictions and are subject to more accurate gauging information becoming available, further rainfall events, and changing operations upstream. The flow forecasts are reliant on predictions made by the Bureau of Meteorology, Murray-Darling Basin Authority and other water management agencies. As new information becomes available, forecasts are revised accordingly.



There will be a progressive increase to the flow during next week. Based on current forecasts flow is likely to increase to approximately 60,000 ML/day over the coming weeks.

Currently, the peak flow is forecast to remain under 65,000 ML/day and is projected to arrive during mid to late April 2012. The Department for Water, in conjunction with the Murray-Darling Basin Authority and SA Water, will closely monitor flows and where possible, peak flows will be managed to minimise downstream adverse impacts.

In February 2011 flows peaked of 93,800 ML/day. The flow in April 2012 is expected to be similar to the flow observed in April 2011.

## **BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES**

The water level in Lake Alexandrina and Lake Albert is approximately 0.72m AHD. Barrage releases will continue and high tides over the coming months will limit the ability to discharge water at certain times. Where possible, releases will continue mainly through hydraulically operated barrage gates, which allow for releases to cease quickly, minimising the risk and impacts of reverse flows. Operations at Goolwa barrage (manually operated) will be adapted where possible to mitigate the effects of high tides. The releases at Boundary Creek will continue during periods of reverse flows in order to maintain a salinity gradient and estuarine conditions.

Residents and landholders in the Goolwa, Hindmarsh Island and Mundoo areas may experience increased salinity in the area's waterways due to 'reverse head' conditions. With large volumes of River Murray water flowing into the area, any salinity spikes are likely to be short-term.

Water levels and barrage operations are closely monitored by the various agencies of the South Australian Government, Murray-Darling Basin Authority and the Commonwealth Environmental Water Holder.

## **RIVER MURRAY WATER LEVELS**

SA Water and the Department for Water have developed a River Murray Water Level chart (attached) to provide water levels at a number of locations from Lock 10 (near Wentworth) to Murray Bridge.

## **FURTHER INFORMATION**

The Department for Water has published a series of inundation maps for the River Murray. They are available at:

[www.waterconnect.sa.gov.au](http://www.waterconnect.sa.gov.au)

Up-to-date River Murray flow and water level information can be accessed at the Department for Water, SA Water and Murray-Darling Basin Authority websites: -

<http://data.rivermurray.sa.gov.au>

[www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm](http://www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm)

<http://www.mdba.gov.au/water/live-river-data>

Details of river height and rainfall information in the River Murray within Victoria and New South Wales are available at the Bureau of Meteorology website:

<http://www.bom.gov.au/vic/flood>

Information on the discharge of acid drainage water into the Lower River Murray can be accessed online at [www.waterforgood.sa.gov.au](http://www.waterforgood.sa.gov.au)



## River Murray Water Levels as at 28 March 2012

Location	River Km	Normal Pool Level	Current Level (m AHD)	1974 Flood Level (m AHD)	1993 Flood Level (m AHD)
Lock 10	825.0	30.80	30.74	33.81	33.32
Lock 9 Kulnine	764.8	27.40	27.29	30.03	29.44
Lock 8 Wangumma	725.7	24.60	25.44	27.6	27.19
Lock 7 Rufus River	696.6	22.10	24.08	25.70	25.24
Lock 6 Murtho	619.8	19.25	19.22	21.03	20.50
Renmark	567.4	-	16.43	18.54	18.04
Lock 5	562.4	16.30	16.31	18.07	17.50
Lyrup	537.8	-	14.05	16.85	16.26
Berri	525.9	-	13.75	15.81	15.74
Lock 4	516.2	13.20	13.44	15.65	15.08
Loxton	489.9	-	11.84	15.05	14.12
Cobdogla	446.9	-	10.04	13.44	12.38
Lock 3	431.4	9.80	9.79	13.16	12.02
Overland Corner	425.9	-	7.97	12.73	11.58
Waikerie	383.6	-	6.80	11.26	10.24
Lock 2	362.1	6.10	6.13	10.28	9.30
Cadell	332.6	-	N/A*	9.17	8.08
Morgan	321.7	-	4.10	8.85	7.65
Lock 1 Blanchetown	274.2	3.20	3.16	6.81	5.38
Swan Reach	245.0	0.75	1.30	6.06	4.51
Mannum PS	149.8	0.75	0.82	3.15	1.90
Murray Bridge	115.3	0.75	0.71	2.06	1.26

\*N/A – reading not available.

Note that the above water may be affected by local wind conditions.

Regularly updated daily water level information can be found at the following websites:

### SA Water

[www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm](http://www.sawater.com.au/SAWater/Environment/TheRiverMurray/River+Murray+Levels.htm)

### Department for Water

<http://www.waterconnect.sa.gov.au/RMWD/Pages/default.aspx>

Information is also available from the SA Water Hotline on **08 8595 2299**

**UPDATES-** This advice remains current until the Department for Water notifies otherwise.



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