

# RIVER MURRAY FLOW ADVICE AND WATER RESOURCE UPDATE

## Flow to South Australia

Report #3/2012

Issued 10:00 a.m. 20 January 2012

**This supersedes the previous flow advice issued by the Department for Water on 13 January 2012. Further flow advice will be provided on Friday 27 January 2012.**

### WATER RESOURCE UPDATE

The River Murray system inflow during December 2011 was approximately 550 gigalitres (GL). The long-term average inflow for the same period is 420 GL. Inflow to the Upper River Murray and associated tributaries is expected to continue to decline due to reduced rainfall. Rainfall conditions across the southern Murray-Darling Basin over the last three months have ranged from average to above average. The absence of heavy rainfall events in quick succession has seen inflows recede towards average inflow conditions. Flow conditions along the River Murray are now completely regulated. Unregulated flow conditions ceased on 10 January 2012, after commencing in mid November 2011.

Several rainfall events in key catchments across the northern section of the Murray-Darling Basin have produced a moderate flood event along the Barwon-Darling River system. The floodwater peak has arrived at Bourke and the flow is currently 73.5 GL/day and is likely to result in a peak flow at Wilcannia of about 30 GL/day in February 2012. The Barwon-Darling River system experiences significant transmission losses due to vast floodplains and numerous wetlands. Releases from Menindee Lakes continue to occur in order to make additional airspace to capture the peak to minimise potential flooding impacts on the Lower Darling River.

The peak release from Menindee Lakes was 24 GL/day and has now reduced to 18 GL/day. Further reductions are planned over the coming weeks and by late January 2012 the release will be 9 GL/day. The release has provided replenishment flows along the Great Darling Anabranch and the Lower Darling River, which is beneficial to riparian vegetation and for fish passage.

Regulated releases of approximately 9 GL/day may continue for several months to support the delivery of environmental water to South Australia and to meet other demands, such as irrigation requirements. Operations at Menindee Lakes may change in response to any future rainfall events.

The flow to South Australia is now fully regulated and being maintained at 16.5 GL/day to deliver 7 GL/day of Entitlement Flow, 3 GL/day of Additional Dilution Flow (ADF) and 6.5 GL/day of Commonwealth environmental water. The flow has reduced from a peak of 25 GL/day in early January 2012.

Around 310 GL of Commonwealth Environmental Water will be delivered over the coming months to support the management and improvement of aquatic habitat in the Murray River channel, Lower Lakes and Coorong and support continued freshwater releases into the Coorong from Lake Alexandrina. (See <http://www.environment.gov.au/ewater/southern/murray/lower-murray.html>).

This provides an ongoing opportunity to flush salt from the Lower Lakes and to provide fish passage between the lakes and the Coorong. The flows will also help to maintain an open Murray Mouth without dredging. The total flow to South Australia between 1 July 2011 to 19 January 2012 was approximately 4,500 GL compared to 6,230 GL for the same period in 2010-11.



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## Storage Levels

Murray-Darling Basin Authority storage levels at 18 January 2012 and 19 January 2011

Storage	Full Supply Volume GL	18/1/2012 GL	19/1/2011 GL	Long-term Average (end January) GL
Dartmouth	3,856	2,961 (77%)	2,211 (57%)	
Hume	3,003	2,233 (74%)	2,782 (93%)	
Lake Victoria	677	551 (81%)	445 (66%)	
Menindee Lakes (FSL)	1,731	1,604 (93%)	1,829 (106%)	
<b>TOTAL</b>	<b>9,267 (100%)</b>	<b>7,349 (79%)</b>	<b>7,267 (78%)</b>	<b>6,343 (68%)</b>

The current allocation announcements, and the allocation announcements around the same time in 2011, are summarised below.

## State Water Allocation Summary

State Entitlement Type	15/1/2012	15/1/2011
South Australia High Security	100%	67%
NSW Murray High Security	97%	97%
NSW Murray General Security	100%	100%
Murrumbidgee High Security	95%	95%
Murrumbidgee General Security	100%	100%
Lower Darling High Security	100%	100%
Lower Darling General Security	100%	100%
VIC Murray High Reliability Water Share	100%	100%
VIC Goulburn High Reliability Water Share	100%	100%



## FLOW OUTLOOK

The flow to South Australia is approximately 16,000 megalitres per day (ML/day). This is expected to reduce slightly to around 15,000 ML/day after the coming weekend and is expected to remain around this rate for the remainder of January. This includes Entitlement Flow of 7,000 ML/day plus Additional Dilution Flow of 3,000 ML/day and 6,500 ML/day of Commonwealth environmental water, which is being used to manage the recession from high flows during late December/early January to ensure that river levels decrease gradually from the recent peak.

Additional Dilution Flow is expected to continue into autumn 2012, based on forecast inflows into Menindee Lakes from recent floodwater flowing into the Barwon-Darling River system. This is a forecast only and the flow continues to be subject to weather conditions and operations upstream.

The flow over Lock 1 is currently 16,000 ML/day and will remain around this volume for the coming week.

The majority of the current, and any future, environmental water received will flow through South Australia to the Lower Lakes and Coorong. This will assist in the maintenance of barrage releases over summer, improve and maintain salinity levels in the Lower Lakes and Coorong and maintain connectivity between Lake Alexandrina and the Coorong. In addition, environmental water from The Living Murray is being delivered to wetlands on the Chowilla Floodplain to enhance floodplain vegetation and wildlife habitat, building on the benefits from the 2011 high flow events. The delivery of environmental water will continue over the next few months.

## SALINITY OUTLOOK

The continuation of Additional Dilution Flow will help mitigate some of the impact of localised salinity increases. The Department for Water continues to undertake detailed modelling of the salt loads.

Irrigators are reminded to check the salinity levels regularly at their pump sites and also to access the Department for Water's River Murray Water Data website to obtain real-time salinity data from locations where monitoring sites are established. The data may be accessed via the following link:

<http://data.rivermurray.sa.gov.au/Telemetry/Default.aspx?App=RMW>

## BARRAGE OPERATIONS AND WATER LEVELS IN THE LOWER LAKES

The water level in Lake Alexandrina is approximately 0.67m AHD and the water level in Lake Albert is slightly lower at approximately 0.63m AHD. Barrage gates are currently being operated to provide a release in the order of 5,000 to 6,000 ML/day. This rate is expected to be maintained over the coming week. Lake levels should continue to remain in the order of 0.55m to 0.75m AHD over the coming weeks. Water levels and barrage operations are continually monitored by the Department for Water, SA Water and the Department of Environment and Natural Resources.

It is important to note that water levels in the Lower Lakes may vary considerably with wind speed and direction. This, when combined with the high water level or high tides, could result in seawater backflow events and/or some inundation of low-lying areas around the edges of Lake Alexandrina, Lake Albert or the Goolwa Channel. Barrage operations are being monitored by SA Water to minimise the impacts of any forecast backflow events.

The Department for Water is responsible for monitoring salinity in the Lower Lakes and maintains a network of salinity recording devices at a number of locations. Data collected from this monitoring network assists the Murray-Darling Basin Authority and the Government of South Australia in determining barrage operations, conducting scientific analysis and formulating policy positions.



## 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)



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## River Murray Water Levels as at 18 January 2012

Location	River Km	Normal Pool Level	Current Level (m AHD)
Lock 10	825.0	30.80	30.84
Lock 9 Kulnine	764.8	27.40	27.43
Lock 8 Wangumma	725.7	24.60	24.86
Lock 7 Rufus River	696.6	22.10	22.29
Lock 6 Murtho	619.8	19.25	19.29
Renmark	567.4	-	16.29
Lock 5	562.4	16.30	16.29
Lyrup	537.8	-	13.30
Berri	525.9	-	13.25
Lock 4	516.2	13.20	13.20
Loxton	489.9	-	10.37
Cobdogla	446.9	-	9.74
Lock 3	431.4	9.80	9.72
Overland Corner	425.9	-	6.67
Waikerie	383.6	-	6.31
Lock 2	362.1	6.10	6.12
Cadell	332.6	-	-
Morgan	321.7	-	3.39
Lock 1 Blanchetown	274.2	3.20	3.20
Swan Reach	245.0	0.75	0.85
Mannum PS	149.8	0.75	0.76
Murray Bridge	115.3	0.75	0.68

Note that water levels do not take into account 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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