

RIVER MURRAYFLOW ADVICE AND WATER RESOURCE UPDATE

Flow to South Australia

Issued 10:00 am 16 December 2011

This supersedes the previous flow advice issued by the Department for Water on 9 December 2011. A further flow advice will be provided on Friday 23 December 2011.

WATER RESOURCE UPDATE

The River Murray system inflow during November 2011 was approximately 600 gegalitres (GL). The long-term average inflow for the same period is 780 GL. Inflow to the Upper River Murray and associated tributaries is expected to continue to decline due to reduced rainfall. The River Murray system inflow to 14 December is approximately 300 GL and is expected to be in excess of 400 GL by the end of December 2011.

The total flow to South Australia from 1 July 2011 to 13 December 2011 is approximately 3,850 GL.

South Australia is receiving regulated flow conditions, which includes the delivery of environmental water traded from Victoria and Additional Dilution Flows. This is expected to continue until the end of April 2012. In addition there will be a net trade adjustment upstream of 47 GL between November 2011 and April 2012 as a result of late season trade in 2010-11.

During November and December 2011 environmental water has been released from the Goulburn and Campaspe Rivers and traded to South Australia. This freshwater flow into the Lower Lakes and out of the barrages will benefit the environment.

The possibility of another unregulated flow event to South Australia in early 2012 is likely due to the forecast inflows to Menindee Lakes from recent flooding across southern Queensland and northern New South Wales.

Storage Levels

Murray-Darling Basin Authority storage levels at 14 December 2011 and 15 December 2010

Storage	Full Supply Volume GL	14/12/2011 GL	15/12/2010 GL	Long-term Average (end November) GL
Dartmouth	3,856	2,933 (76%)	2,062 (53%)	
Hume	3,003	2,692 (90%)	2,964 (99%)	
Lake Victoria	677	627 (93%)	410 (61%)	
Menindee Lakes (Full Supply Level)	1,731	1,802 (104%)	1,355 (78%)	
TOTAL	9,267 (100%)	8,054 (87%)	6,791 (73%)	6,870 (74%)



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The current allocation announcements, and the allocation announcements around the same time in 2010, are summarised below.

State Water Allocation Summary

State Entitlement Type	15/12/2011	15/12/2010
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 currently 17,000 megalitres per day (ML/day) and will remain around 15-17,000 ML/day over the next few weeks as a result of the environmental releases from upstream reaching South Australia. This flow rate may change in response to inflows from the Murrumbidgee River and releases from Menindee Lakes. The higher flow will also result in higher water levels downstream of Lock 6 to Lock 1. Delivery of the environmental water will continue through until January 2012. Additional Dilution Flow is now expected to continue into autumn 2012, based on forecast inflows into Menindee Lakes from the recent rainfall upstream. This is a forecast only and the flow continues to be subject to weather conditions and operations upstream.

Releases from Lake Victoria are currently around 6,000 ML/day.

The flow over Lock 1 is currently around 14, 000 ML/day and is likely continue around this rate for the next few weeks.

Over the coming six months, additional environmental water may also be delivered to South Australia from the Commonwealth Environmental Water Holder and *The Living Murray*. 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. Further information will be provided as it becomes available.

Releases from Menindee Lakes have now commenced to supply Entitlement Flow to South Australia over summer. These releases will further increase next week to manage flow in transit through the Barwon-Darling River system.



SALINITY OUTLOOK

As water levels fluctuate around normal pool height, some locations along the River Murray may experience higher salinity. Salinity increases will be particularly noticeable in areas adjacent to the main channel. The continuation of Additional Dilution Flow will help mitigate some of the impact of localised salinity increases. The Department for Water is increasing salinity monitoring and will 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 0.66m AHD and the water level in Lake Albert is slightly lower at approximately 0.55m AHD. Barrage gates are currently being operated to provide a release in the order of 4,000 ML/day and over the next week will increase up to 6,000 ML/day. 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

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.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



River Murray Water Levels as at 14 December 2011

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	27.41
Lock 8 Wangumma	725.7	24.60	24.61
Lock 7 Rufus River	696.6	22.10	22.24
Lock 6 Murtho	619.8	19.25	19.27
Renmark	567.4	-	16.32
Lock 5	562.4	16.30	16.32
Lyrup	537.8	-	13.35
Berri	525.9	-	13.28
Lock 4	516.2	13.20	13.23
Loxton	489.9	-	N/A*
Cobdogla	446.9	-	9.86
Lock 3	431.4	9.80	9.84
Overland Corner	425.9	-	6.60
Waikerie	383.6	-	6.27
Lock 2	362.1	6.10	6.09
Cadell	332.6	-	N/A*
Morgan	321.7	-	3.43
Lock 1 Blanchetown	274.2	3.20	3.24
Swan Reach	245.0	0.75	0.83
Mannum PS	149.8	0.75	0.67
Murray Bridge	115.3	0.75	0.60

*N/A – reading not available.

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

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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