

RIVER MURRAY FLOW ADVICE

Flow to South Australia

Report #9/2012

Issued 10:00am 2 March 2012

This supersedes the previous flow advice issued by the Department for Water on 24 February 2012. Further flow advice will be provided on Friday 9 March 2012.

FLOW OUTLOOK

The flow to South Australia is currently 20,000 ML/day and is expected to increase to around 25,000 ML/day when maintenance work at the Chowilla coffer dam and Lock 4 has been completed. This is a forecast only and remains subject to weather conditions, flow upstream and operational factors at key storages such as Menindee Lakes.

A large proportion of the flood flow generated in the Condamine/Balonne River system has crossed the border into NSW. The peak river level at Bourke (NSW) is expected to be near 13.8m with a peak flow of approximately 242,000 ML/day in early March 2012. This will result in major flooding in that area. The peak flow will be substantially reduced by the time it reaches Wilcannia in late March 2012. Bourke and Wilcannia are upstream of the Menindee Lakes.

The NSW Office of Water is presently releasing approximately 35,000 ML/day to make additional airspace in Menindee Lakes, which currently holds 1,549 GL (89 percent capacity). The release strategy aims to make approximately 500 GL of airspace to mitigate the peak and then the Menindee Lakes will be surcharged to 2,015 GL (116 percent capacity).

The flow along the Barwon-Darling River System does not present a risk of flooding in South Australia based on current estimates and upstream operations. Overbank flows only begin to occur when the flow to South Australia increases to more than 40,000 ML/day. The current outlook is for a flow of under 30,000 ML/day based on the current flows in transit and the operation of Lake Victoria. A flow of 60,000-100,000 ML/day is required to begin flooding shack areas and the floodplains in South Australia. This would result in a high flow warning being issued for the River Murray.

A low-pressure trough is currently moving across NSW and Victoria, which is generating high unseasonable rainfalls at some locations. On 29 February 2012, the Bureau of Meteorology issued the following:

- Minor flood warning for the Tumut River;
- Minor flood warning for the River Murray upstream of Hume Reservoir (Hume storage has around 1,100 GL of airspace);
- Flood watch for North East Victoria (Mitta Mitta, Kiewa, Ovens and King catchments); and
- Flood watch for the Goulburn River tributaries.

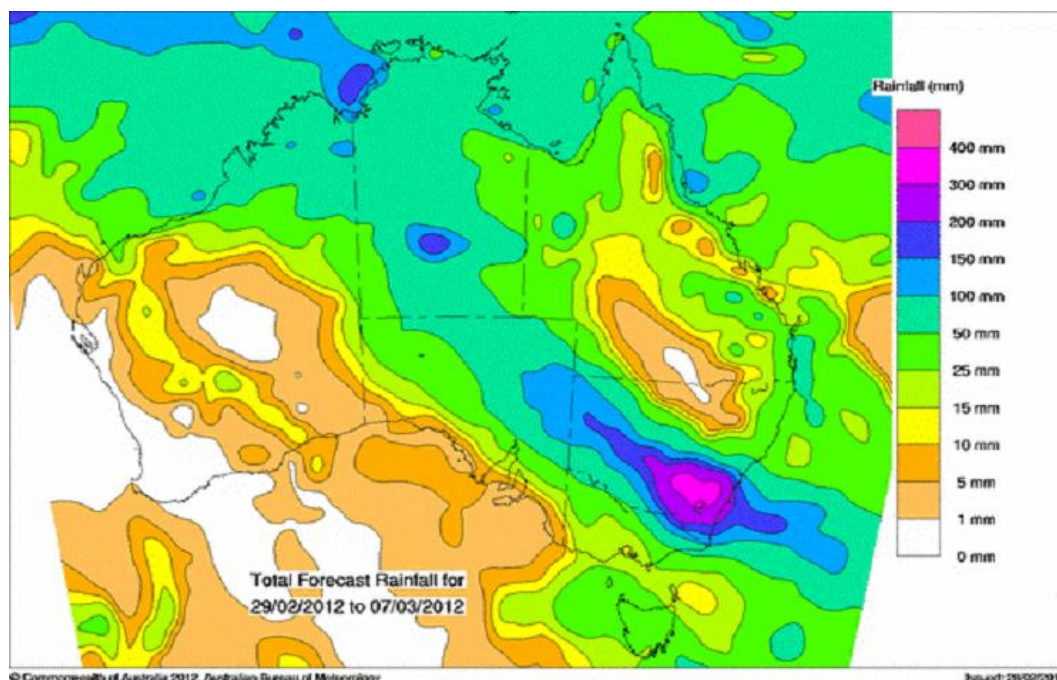


Government of South Australia
Department for Water

WATER IS GOOD

Rainfall totals at some locations have already exceeded 130mm and further rainfall is forecast for the next eight days (Figure 1 - issued on 29 February 2012).

Figure 1: Rainfall outlook (Bureau of Meteorology)



The rainfall and inflows will be closely monitored over the next eight days and further information regarding potential impacts will be provided in the next flow advice. Higher rainfall is expected over the Snowy Mountains and Murrumbidgee River and there are a number of storages where inflows can be regulated. Any flows along the Murrumbidgee River will be attenuated by the floodplains. A revised outlook for the flow to South Australia will be provided after this rainfall has been received; however, there is no immediate risk of flooding to South Australia.

South Australia's Entitlement Flow during March is 6, 000 ML/day and Additional Dilution Flow (ADF) of 3,000 ML/day is still being received. Unregulated flow conditions are currently being experienced and are likely to persist for a number of months as South Australia is now likely to receive flows in the range of 15,000-30,000 ML/day until June 2012 and possibly further depending upon inflows and releases from Menindee Lakes and other inflows into the River Murray from key tributaries.

The flow over Lock 1 is currently 23,000 ML/day and will remain at this rate over the coming week.

The unregulated flow will pass through South Australia to the Lower Lakes and Coorong. This will assist in the maintenance of barrage releases over autumn and winter, to improve and maintain salinity levels in Lakes Alexandrina and Albert and maintain connectivity to 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. Currently, Coombool Swamp, a wetland on the Chowilla floodplain, has received approximately 2 GL of water. A recent waterbird survey identified more than 1,000 birds (24 species) using the wetland. Another two wetlands are to receive environmental water in March.



SALINITY OUTLOOK

Due to the releases from Menindee Lakes, the turbidity levels along the River Murray in South Australia will increase.

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 0.69m AHD and the water level in Lake Albert is approximately 0.66m AHD. An operation to cycle water in and out of Lake Albert will be undertaken during the coming weeks in order to mobilise and export salt. The aim is to raise the water level to above 0.7m AHD then reduce it to around 0.55m AHD and hold it at this level for a few weeks. Lake levels should continue to remain generally in the order of 0.55m to 0.75m AHD over the coming weeks, which is within the normal operating range. Given the large volume of water expected to flow across the border over the next three months there is a possibility of further water level manipulations.

Barrage gates are currently being operated to provide a release in the order of 7,200 ML/day. This rate is expected to be maintained over the coming week. 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 also 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>



Government of South Australia
Department for Water

WATER IS GOOD

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/australia/flood/>

Information provided by the Commonwealth Environmental Water Holder:

<http://www.environment.gov.au/ewater/southern/murray/lower-murray.html>

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 29 February 2012

Location	River Km	Normal Pool Level	Current Level (m AHD)
Lock 10	825.0	30.80	30.80
Lock 9 Kulnine	764.8	27.40	27.41
Lock 8 Wangumma	725.7	24.60	24.64
Lock 7 Rufus River	696.6	22.10	22.11
Lock 6 Murtho	619.8	19.25	19.26
Renmark	567.4	-	-
Lock 5	562.4	16.30	16.27
Lyrup	537.8	-	-
Berri	525.9	-	13.23
Lock 4	516.2	13.20	13.16
Loxton	489.9	-	-
Cobdogla	446.9	-	-
Lock 3	431.4	9.80	9.75
Overland Corner	425.9	-	-
Waikerie	383.6	-	6.48
Lock 2	362.1	6.10	6.20
Cadell	332.6	-	-
Morgan	321.7	-	-
Lock 1 Blanchetown	274.2	3.20	3.26
Swan Reach	245.0	0.75	0.96
Mannum PS	149.8	0.75	0.75
Murray Bridge	115.3	0.75	0.69

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.



Government of South Australia

Department for Water

WATER IS GOOD