RIVER MURRAY WEEKLY FLOW REPORT

Flow to South Australia

Report #11/2012
Issued 10:00am 16 March 2012

This supersedes the previous flow advice issued by the Department for Water on 9 March 2012. Further flow advice will be provided on Friday 23 March 2012.

Please note that the weekly "Flow Advice" is now called the River Murray Weekly Flow Report to avoid confusion about the role of this and other River Murray advisory documents.

RECENT RAINFALL UPSTREAM OF SOUTH AUSTRALIA

The implications for South Australia of recent rainfall across New South Wales and Victoria are still being assessed, and inflow estimations are complicated due to large potential losses expected as a result of water flowing across expansive floodplains and through major irrigation areas. Moderate to major flooding is occurring across a number of areas, and in particular along the Murrumbidgee River. Large flow peaks have been observed at upstream locations such as Wagga Wagga and Gundagai; however, the flow peak will be reduced significantly by the time it reaches Balranald in mid-April 2012. These higher flows from the Murrumbidgee River are likely to arrive after the higher flows along the River Murray have passed downstream.

Water is still being released from Menindee Lakes to accommodate future flood flows now in transit. The Menindee Lakes will be surcharged when the peak arrives in early April. These rainfall events have wet all major catchments and nearly filled the major storages. It will also wet the floodplain before winter and spring. These conditions increase the chances of higher inflow events during the remainder of 2012 and possibly into 2013.

The Murray-Darling Basin Authority is still assessing the potential inflows to the River Murray and increasingly reliable inflow estimates will become available over the coming weeks. South Australia will experience higher flows for around two months as a result of these inflows, which will provide benefits for wetlands and some floodplains, and will enable continued discharge from the Lower Lakes and improved conditions in Lake Albert and the Coorong.

FLOW OUTLOOK

The flow to South Australia is currently 25,500 ML/day and will increase in the next week to between approximately 35,000 and 37,000 ML/day.

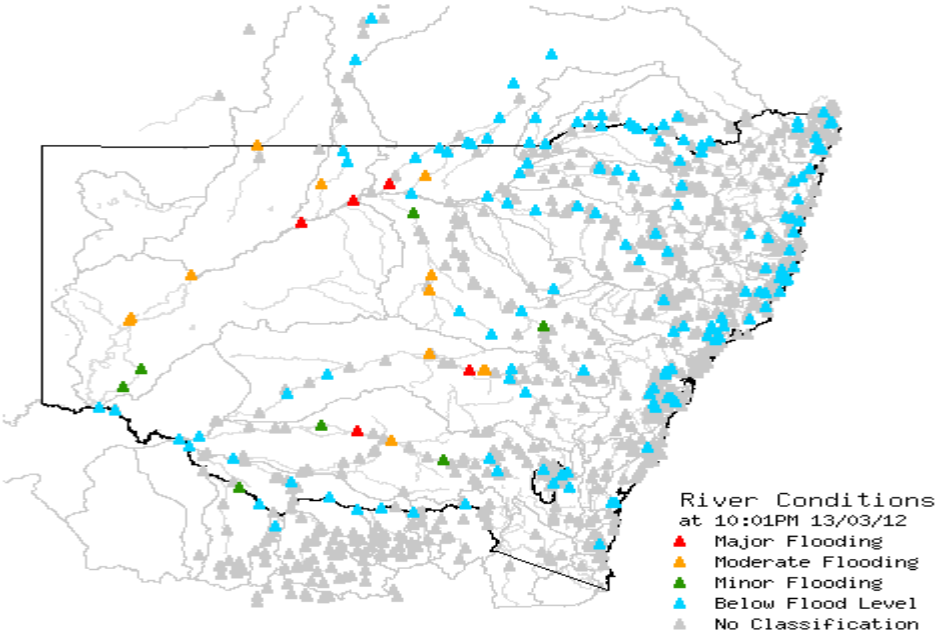
Flow to South Australia is likely to increase progressively towards 40,000 ML/day towards the end of March, rising to around 60,000 ML/day by mid-April. Further rises may occur above 60,000 ML/day due to a revised inflow forecast at upstream locations, notably at Balranald on the Murrumbidgee River. This is a preliminary forecast which will be updated and provided on a weekly basis.

A flow to South Australia of 60,000 ML/day is experienced in 30 per cent of years, but it is highly unusual to have flows of 60,000 ML/day during April; note, however, that the flow to South Australia on 15 April 2011 was 61,000 ML/day.

Based on the currently available information, the flow to South Australia is not expected to reach the 93,800 ML/day observed in mid-February 2011.

In South Australia, significant overbank flows begin to occur when the flow to South Australia increases to more than 40,000 ML/day. A flow of between 60,000 and 100,000 ML/day is required to begin flooding shack areas downstream of Cadell and the floodplains in South Australia.

On 13 March 2012, the Bureau of Meteorology issued flood warnings for the following rivers in **New South Wales** (which may affect flow to South Australia): Murrumbidgee, Barwon-Darling and Lachlan. http://www.bom.gov.au/nsw/flood/index.shtml



There is no immediate risk of flooding to South Australia.

South Australia's Entitlement Flow during March is 6000 ML/day and Additional Dilution Flow (ADF) of 3000 ML/day is still being received. Unregulated flow conditions are currently being experienced and are likely to continue for a number of months. There is a high risk of spill from the Upper River Murray storages over the next six to eight months.

The flow over Lock 1 is currently 19,500 ML/day and will remain under 27,000 ML/day for at least the next week.

Much of 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 with the Coorong. In addition, environmental water from *The Living Murray* initiative is being delivered to Coombool Swamp on the Chowilla Floodplain to enhance the vegetation and wildlife habitat of this high elevation wetland. Other planned environmental watering of lower level wetlands at Chowilla has been suspended because the sites are likely to receive water naturally as a result of the high flows. Coombool Swamp has received approximately 2.5 GL of water and a waterbird survey has identified more than 1500 birds (24 species) using the wetland.

SALINITY OUTLOOK

Continuation of Additional Dilution Flow in conjunction with substantial unregulated flow will continue to mitigate some of the impact of localised salinity increases. The Department for Water continues to undertake detailed modelling of 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 0.56m AHD and the water level in Lake Albert is approximately 0.6m AHD. An operation to cycle water in and out of Lake Albert by manipulating water levels is being undertaken in order to mobilise and export salt. 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 20,000 ML/day and will progressively increase as the flow to South Australia increases. Water levels and barrage operations are continually monitored by the various agencies of the South Australian Government, Murray-Darling Basin Authority and the Commonwealth Environmental Water Holder.

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 closely 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/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 14 March 2012

Location	River Km	Normal Pool Level	Current Level (m AHD)
Lock 10	825.0	30.80	30.89
Lock 9 Kulnine	764.8	27.40	27.71
Lock 8 Wangumma	725.7	24.60	24.88
Lock 7 Rufus River	696.6	22.10	22.41
Lock 6 Murtho	619.8	19.25	19.25
Renmark	567.4	-	16.24
Lock 5	562.4	16.30	16.20
Lyrup	537.8	-	13.36
Berri	525.9	-	13.27
Lock 4	516.2	13.20	13.20
Loxton	489.9	-	10.64
Cobdogla	446.9	-	-
Lock 3	431.4	9.80	9.77
Overland Corner	425.9	-	6.93
Waikerie	383.6	-	6.41
Lock 2	362.1	6.10	6.16
Cadell	332.6	-	-
Morgan	321.7	-	3.57
Lock 1 Blanchetown	274.2	3.20	3.23
Swan Reach	245.0	0.75	0.72
Mannum PS	149.8	0.75	0.55
Murray Bridge	115.3	0.75	0.48

Note that water levels do not take local wind conditions into account.
Regularly updated 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.