

RIVER MURRAY FLOW ADVICE- UPDATE

Increased Flows to South Australia

Issued 17:00 21 January 2011

This supersedes the previous flow advice issued by the Department for Water (DFW) at 17:00, 14 January 2011. **This is NOT a Flood Warning.** A further update will be provided on Friday 28 January 2011.

JANUARY 2011 to FEBRUARY 2011 FLOW OUTLOOK

Flow to South Australia over the next week is expected to be within the range of 70,000 ML/day to 80,000 ML/day as the higher flow arrives at the South Australian border. As flow conditions upstream change, further flow updates will be provided.

Flow over Lock 1 at Blanchetown is currently 50,000 ML/day and will continue to slowly increase over the next week.

A flow of around 80,000 ML/day is expected around late January 2011. Recent rainfall and inflow upstream of South Australia may cause further temporary rises in flow and changed river operations upstream of South Australia.

Flow to South Australia is likely to increase above 80,000 ML/day in late January to early February 2011 and may approach 90,000 ML/day at the border of South Australia in early to mid February 2011.

A flow of 90,000 ML/day is not a threat to towns and levee banks; however, some shack sites, roads, campsites and causeways located on floodplains may be inundated. This flow is well within the normal historical flow range for the River Murray in South Australia. No populated areas will be at risk of flooding from the predicted flow but the extent of inundation of low-lying areas of the floodplain, creeks and flood runners will increase.

The Lake Victoria Operations Strategy is currently affecting the flow to South Australia. This strategy aims to protect the Aboriginal cultural heritage at Lake Victoria by manipulating water levels to promote re-vegetation. Healthy vegetation stabilises the lakebed, minimising the chance of additional cultural material being exposed by erosion. The water level in Lake Victoria remains drawn down (currently 445 GL or 66% capacity); however, the lake may be partially refilled in the coming months.



Government of South Australia
Department for Water

WATER IS GOOD

All people travelling along the River Murray are reminded to exercise caution at all times and to be mindful of partially submerged infrastructure such as jetties, floating debris and when trying to navigate through the navigable passes at the lock and weirs. The higher flow may present a hazard to watercraft with low-horsepower engines.

People need to be aware of the predicted levels and the rate of rise, and should take any necessary actions to modify irrigation infrastructure, pontoons and moorings.

The Department of Environment and Natural Resources has recently announced the closure of some campgrounds at parks and reserves in the Riverland due to the current and predicted flows.

COMPARISON WITH PREVIOUS FLOW EVENTS IN SOUTH AUSTRALIA

Recently there has been speculation about the potential for this high flow to develop into a flood event similar to the 1956 flood. The peak flow to South Australia in 1956 was around 350,000 ML/day, which is more than four times higher than the current forecast peak flow of 80,000 ML/day or 90,000 ML/day. Given the forecast weather and river conditions, a repeat of the 1956 flood event is highly unlikely.

There has also been speculation of a repeat of the 1974 flood peak, which was 180,000 ML/day, still well above current and projected levels. This flow is also highly unlikely based on current forecasts.

In 2000-01, flow peaked in mid-December 2000 at 64,000 ML/day and in mid-December 1992 flows peaked at 93,000 ML/day.

RAINFALL AND FLOWS UPSTREAM OF SOUTH AUSTRALIA

Flood flows from the widespread rains across much of northern New South Wales in November and December 2010 are making their way along the Barwon-Darling River system and into Menindee Lakes, with the peak expected to arrive in Menindee Lakes in the coming weeks.

In anticipation of this peak flow, the New South Wales Office of Water released a flow advice for the Lower Darling River on 18 January 2011, which stated that releases from Menindee Lakes (Weir 32) will be increased over the next week up to 35,000 ML/day by 26 January 2011 and the possibility of further increases up to 40,000 ML/day by the end of the January 2011.

Widespread rainfall occurred across the north central catchment area in Victoria on 13 January 2011, including the Goulburn, Campaspe, Loddon, Avoca and Wimmera catchments. Some locations along the River Murray upstream of South Australia received more than 100mm last week.

Although the Bureau of Meteorology has issued flood warnings in some of these catchments there will be relatively minor inflows into the River Murray system and these will not result in a high flood in the River Murray system as some of the inflows, particularly from the Campaspe River will be attenuated through the Koondrook Forest, which is the second largest River Red Gum forest on the River Murray system. Inflows from these rivers are not likely to create a higher peak flow to South Australia but will extend the duration of higher flow along the River Murray.



The flooding occurring now in Queensland will not add to the high flow in the River Murray during January to February 2011 as this water will take a number of months to travel to Menindee Lakes and is likely to arrive during March 2011.

It is too early to predict with any confidence how much water will reach the Barwon-Darling River system and past Wilcannia. Given the long distances and travel times a large proportion of this water will be consumed by the environment, filling numerous floodplains, wetlands and billabongs.

WATER QUALITY

Due to high flows in the Murray-Darling System, substantial areas of forest and floodplain is being inundated for first time in many years, resulting in a lot of organic matter entering the river. Water of very poor quality continues to impact on the main channel of the River Murray downstream of the Barmah-Millewa and Koondrook-Perricoota forests. Water containing low dissolved oxygen, generally less than 1mg/L, is being received from numerous creeks and floodplains leading to fish deaths.

SA Water, along with interstate water authorities, is regularly monitoring water quality and this issue does not pose an immediate threat to South Australia due to the dilution effect of the Lower Darling River providing water with a higher dissolved oxygen concentration.

WATER LEVEL INFORMATION

SA Water and the Department for Water have developed a River Murray Water Level chart to provide projected water levels at a number of locations from Lock 9 to Murray Bridge. The table below outlines the projected water levels for a flow of 90,000 ML/day based on previous flow events.

Regularly updated daily water level information can be found at the following websites. Note that projected water levels do not take into account local wind conditions.

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 SA Water Hotline on 08 8595 2299



Projected Water Levels for a Flow of 90,000 ML/day

Location	River Km	Current Level (m AHD)	Predicted Peak level (m AHD)	Approx. Date of Peak	Further Rise (m)	1974 Flood Level	1993 Flood Level
Lock 10	825	31.98	32.24	24 Jan	0.26	33.81	33.32
Lock 9 Kulnine	764.8	28.47	28.95	27 Jan	0.48	30.03	29.44
Lock 8 Wangumma	725.7	26.48	26.85	28 Jan	0.37		
Lock 7 Rufus River	696.6	24.60	25.05	29 Jan	0.45	25.7	25.24
Lock 6 Murtho	619.8	19.74	19.94	30 Jan	0.20		
Renmark	567.4	16.70	17.34	2 Feb	0.64	18.54	18.04
Lock 5	562.4	16.48	16.9	2 Feb	0.42	18.07	17.5
Lyrup	537.8	14.95	15.60	3 Feb	0.65		
Berri	525.9	14.55	15.20	4 Feb	0.65	15.81	15.74
Lock 4	516.2	14.20	14.60	5 Feb	0.40	15.65	15.08
Loxton	489.9	12.73	13.50	6 Feb	0.77	15.05	14.12
Cobdogla	446.9	10.73	11.50	9 Feb	0.77	13.44	12.38
Lock 3	431.4	9.93	10.90	10 Feb	0.97	13.16	12.02
O/L Corner	425.9	9.20	10.7	11 Feb	1.50	12.73	11.58
Waikerie	383.6	8.00	9.30	12 Feb	1.30	11.26	10.24
Lock 2	362.1	7.20	8.25	13 Feb	1.05	10.28	9.3
Cadell	332.6	5.70	7.15	14 Feb	1.45		
Morgan	321.7	5.13	6.50	15 Feb	1.37	8.85	7.65
Blanchetown	274.2	3.47	4.50	16 Feb	1.03	6.81	5.38
Swan Reach	245.0	2.12	3.60	17 Feb	1.48	6.06	4.51
Mannum PS	149.8	0.78	1.60	18 Feb	0.82		
Murray Bridge	115.3	0.77	1.30	19 Feb	0.53	2.06	1.26



HIGH FLOWS AND RECREATION

To ensure you stay safe and enjoy the river please practice the following advice from the SES:

- Don't drive, ride or walk through floodwaters, flood-affected causeways or roads.
- Be aware that significant debris is being carried downstream and may pose a hazard to water-based activities.
- When operating a boat on the floodplain or near inundated river banks, be aware of submerged obstacles such as trees and fence lines.
- Landholders, especially those with shacks or other structures in low-lying areas, should consider securing their property from likely rising water levels.
- The hazards associated with riverbank collapse still exist in many areas so be aware of the signs - such as cracked riverbanks and leaning trees - and keep away from fenced or sign-posted affected areas.
- Regularly monitor river levels in your local area, and take care not to become isolated by rising water.
- Always wear a personal floatation device when on the river.
- Do not jump or dive into the river when you do not know what is below the surface.
- Camp on higher ground away from the river bank.
- Supervise children at all times and do not allow them to play in or near floodwater or fast-flowing river water.
- If in doubt, stay out.
- Listen and take action on any instructions from the emergency services - the SES, SA Police and the CFS.

IMPACT OF ELEVATED WATER LEVELS

Water levels in the River Murray between the Border and Wellington will continue to rise in response to the higher flow conditions predicted. The risk of harmful inundation under current flow projections is very low; however, some low-lying shacks and other infrastructure may be affected. Water levels will rise along all sections of the river, with the most noticeable increases immediately downstream of the locks and weirs. At most locks and weirs there will be very little difference between the upstream and downstream water levels.

People planning to visit low-lying floodplain areas are advised to monitor water levels and road access conditions and take reasonable precautions.

The Lower Lakes are currently just above their normal full supply level of 0.75m AHD; however, water is being released from the barrages to pass the higher flows and to lower the water level in the Lower Lakes for improved salinity outcomes, particularly in Lake Albert.

People are advised to monitor the latest weather and flow forecasts and obey any signage along the River Murray or instructions from the emergency services.

For flood-related assistance, call the State Emergency Service on 132 500.

For life-threatening emergencies, call 000.

LEEVE BANKS BELOW LOCK 1

Areas along the River Murray between Lock 1 and Lower Lakes that are protected by levee banks are advised that due to prolonged drought conditions and low river levels:



- levee banks may have deteriorated and could be at risk of failure; and
- floodplain areas including levee banks may have subsided due to soil drying and consolidation.

There have been isolated cases of levee bank leakage. This Department is monitoring the situation and working with the SES to ensure public safety.

Projected flow in January and February 2011 may continue to affect levee banks downstream of Lock 1. People in the vicinity of levee banks are advised to regularly monitor levee bank condition.

If significant structural cracking or leakage of levee banks is evident, people are advised to avoid the area, relocate to higher ground and call the Riverbank Collapse Hotline (**1800 751 970**) to report any observations.

RIVERBANK COLLAPSE

There is an increased risk of riverbank collapse as flows and water levels increase, particularly in those areas below Lock 1 that are known to be at risk.

People living, working or playing along the River Murray, particularly below Lock 1, are advised to continue to look out for the signs of potential riverbank collapse. These include cracking in the river bank, leaning trees or bubbles in the river.

Further information is available at the Riverbank Collapse section of <http://www.sa.gov.au>.

To report the signs of riverbank collapse or to obtain further information call the free 24 hour Riverbank Collapse Hotline (**1800 751 970**). For life-threatening emergencies, call 000.

MURRAY MOUTH

People are urged to take extra caution as good rains upstream of South Australia have raised water levels and increased flow in the River Murray, creating potentially dangerous conditions at the Murray Mouth. For more information see the following media release from the Department of Environment and Natural Resources <http://www.environment.sa.gov.au/data/press/110114-boat-safety.pdf>

FURTHER INFORMATION

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>

UPDATES

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

