
RIVER MURRAY FLOW ADVICE- UPDATE

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Increased Flows to South Australia

Issued 17:00 3 December 2010

This supersedes the previous flow advice issued by the Department for Water (DFW) at 17:00, 26 November 2010. **This is NOT a Flood Warning.** A further update will be provided on Friday 10 December 2010

DECEMBER 2010 to JANUARY 2011 FLOW OUTLOOK

High flow from upstream sources is expected to remain in the range of 50,000 ML/day to 65,000 ML/day for up to the next two weeks, depending on operations and flow conditions upstream.

This flow is due to a number of factors including, operations of structures upstream of South Australia limiting the control over river flow, continued inflow from the Darling and Murrumbidgee Rivers and reduced demand in the Sunraysia area and mid River Murray due to recent rainfall. With further rainfall forecast for the next eight days there is a possibility that flow to South Australia will be sustained at high or elevated levels during December 2010.

The increased flow to South Australia is also partially due to implementing the Lake Victoria Operations Strategy. This strategy aims to minimise the amount of time water in the lake is held at high levels to protect native vegetation and the cultural heritage around the lake. The water level in Lake Victoria remains partially drawn down (currently 569 GL or 84% capacity and this level will reduce further) and will be refilled at a later stage given that high flow conditions are expected to remain for the next two months.

Currently no water is flowing into Lake Victoria through Frenchman's Creek and, as a result, more water will flow down the main channel. There will also be increased flow down the Rufus River due to higher releases from the lake (currently 8,000 ML/day). In order to pass the higher flow, some weir pools may be managed to minimise disturbance to construction works at Lock 4 and 2, along with other infrastructure such as access roads.

Locks 7 and 8 navigable passes have been removed due to the high flow upstream. Lock 7 is currently under water and Lock 8 will also probably be under water within the next few days. The navigable pass at Lock 6 is now also removed.

Flow of around 56,000 ML/day is being measured at the gauging station upstream of South Australia (GS426200).



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WATER IS GOOD

Further small rises could occur over this period due to any changed operations upstream and forecast rainfall.

Weir pool levels within South Australia have been adjusted over the past few weeks to facilitate delivery of this higher flow in order to minimise impacts at a number of construction sites in Chowilla, such as Bank E, which is located upstream of Lock 6 and in between Pipeclay and Slaney's Creeks. The pool level upstream of Lock 6 was lowered to reduce the risk of damage to construction works. The pool level has now increased above the normal level of 19.2m AHD. The water level is currently 19.4m AHD.

Construction works are currently underway at Locks 4 and 2. Flow over recent days at Lock 4 has resulted in elevated downstream water levels and has now passed the safe operating limit for construction works of 13.25m AHD. Normal pool level is 13.20m AHD and the actual level is currently 13.66m AHD, with further rises in water level expected.

A number of other changes to weir pool operations have occurred over the past week to minimise disturbance at construction sites; this is a result of higher flow and rainfall reducing irrigation demand and losses. As a result of this additional water, the flow over Lock 1 has increased above the expected range and water levels have increased. Recent windy conditions have also contributed to the increased water level height below Lock 1 to Murray Bridge.

This peak flow rate is within the normal historical flow range for the River Murray in South Australia. No populated areas will be at risk of flooding from this flow, but some low-lying areas of the floodplain, creeks and flood runners are receiving additional water.

People below Lock 1, particularly in the reach immediately downstream to Mannum, should take any necessary actions to modify irrigation infrastructure, pontoons and moorings to allow for temporary river level rises due to increased flows over Lock 1 and from wind.

COMPARISON WITH PREVIOUS FLOW EVENTS

For comparison, the 1974 flood peak was 180,000 ML/day, well above current and projected levels.

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

FLOOD RISK ABOVE LOCK 1

Pool levels between the border and Lock 1 will change in response to the higher flow conditions. Options for managing weir pools for improved environmental outcomes are currently being considered and any actions to water greater areas of the floodplain will require further manipulation of weir pool levels. The projected risk of harmful inundation under current flow projections is very low, but water levels immediately downstream of all locks will increase to levels observed above normal regulated flow conditions. In some situations there will be very little difference between the upstream and downstream water levels.

Immediately downstream of some locks the water levels are currently 1.5m to 2.5m above the normal regulated level. This is expected as part of normal flow management operations, and is not expected to pose a risk to people or property.



People planning to visit low-lying floodplain areas above Lock 1 in the near future are advised to monitor water levels and road access conditions, and take reasonable precautions.

FLOOD RISK DOWNSTREAM OF LOCK 1

Flow over Lock 1 is currently 41,000 ML/day and further rises will occur - potentially to around 50,000 ML/day.

Water levels immediately downstream of Lock 1 remain high – currently at 2.78 AHD - and this compares to minus 0.57m AHD at the same time last year. Further rises are expected to occur from immediately downstream of Lock 1 to Mannum. The range currently expected is up to 3.1m AHD downstream of Lock 1 to 1.1m AHD at Mannum.

Below Lock 1, the Lower Lakes have reached their normal full supply level of 0.75m AHD and water is being released from the barrages to manage water levels at target height of 0.70m AHD. Some minor changes may occur to these operations to achieve specific environmental outcomes. The releases from the barrages have increased to approximately 55,000 ML/day, due to local rainfall and changed operations upstream.

River Murray levels between Lock 1 and the Lower Lakes have risen in response to recent flow increases and may rise further if flow increases during the next week. Localised increases in water level may also occur as a result of wind effects.

In response to the projected December 2010 flow increase, localised water level increases are expected to occur and indicative levels are shown in the table below.

Reach	Projected level above normal pool (0.75m AHD)	Projected level AHD
Wellington to Murray Bridge	0.1 -0.2m above pool	0.85 – 0.95m AHD
Murray Bridge to Mannum	0.2 – 0.35m above pool	0.95 – 1.1m AHD
Mannum to Purnong	0.35 -0.65m above pool	1.1 – 1.4m AHD
Purnong to Swan Reach	0.65 – 1.65m above pool	1.4 – 2.4m AHD
Swan Reach to Lock 1	1.65 – 2.35m above pool	2.4 – 3.1m AHD

There may be water over low-lying access roads.

People planning to visit low-lying floodplain areas below Lock 1 in the near future are advised to monitor water levels and road access conditions, and take reasonable precautions.

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.

LEVEE BANKS



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.
- Floodplain areas including levee banks may have subsided due to soil drying and consolidation.

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

Projected increased flow in December 2010 may continue to impact 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

The predicted additional flows will raise water levels downstream of Lock 1, including areas known to be at risk of riverbank collapse. There is an increased risk of riverbank collapse occurring at some locations where soils show signs of cracking.

People living, working or playing along the River Murray 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.

FURTHER INFORMATION

Up to date River Murray flow information can be accessed at the DFW and Murray Darling Basin Authority websites:

<http://data.rivermurray.sa.gov.au>

<http://www.mdba.gov.au/water/live-river-data>

Details of river height and rainfall information in the Victorian River Murray 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.

