RIVER MURRAY FLOW ADVICE-UPDATE

Increased Flows to South Australia

Issued 17:00 10 December 2010

This supersedes the previous flow advice issued by the Department for Water (DFW) at 17:00, 3 December 2010. **This is NOT a Flood Warning.** A further update will be provided on Friday 17 December 2010

DECEMBER 2010 to JANUARY 2011 FLOW OUTLOOK

Flows to South Australia have increased over the past week up to 65,000 ML/day in response to heavy rainfall upstream of the South Australian border, high River Murray flows and also inflows from the Darling and Murrumbidgee Rivers.

Flow over the next week is expected to be in the range of 60,000 ML/day to 68,000 ML/day, depending on river operations and flow conditions upstream.

This flow is due to a number of factors, including operations of structures upstream of South Australia limiting the ability to control river flows upstream of Lock 6 to Lock 11, and reduced water demand in the Sunraysia area and mid-River Murray due to recent heavy unseasonal rainfall.

With further rainfall forecast upstream of the South Australian border for the next eight days there is a possibility that flow to South Australia will be sustained at around the current level during December 2010. Over the next few weeks more information will become available about the potential increased inflows from the recent flooding in the Murrumbidgee River and heavy rainfall experienced over the Upper Murray, Ovens, Kiewa, Goulburn and Broken Rivers on 8 to 9 December 2010.

The increased flow to South Australia is also partially due to implementation of 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 542 GL or 80% 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. No water is currently flowing into Lake Victoria through Frenchman's Creek and this will result in more water flowing down the main channel. There will also be increased flow down the Rufus River due to higher releases from the lake (currently 3,500 ML/day).

The current flow will not result in overbank flows of the main channel of the River Murray, but will result in low-lying areas of the Chowilla floodplain receiving water from creeks and flood runners. The recent rainfall throughout the Riverland may also cause access issues to low lying areas and the floodplain, given that some locations received rainfall in excess of 100mm on 7 to 8 December 2010.

Locks 7, 8 and 9 navigable passes have been removed due to the high flow upstream. Lock 7 is currently under water and Lock 8 will also be under water within the next few days. The navigable pass at Lock 6 is now also removed and Locks 5 and 1 will probably be removed within the next week.

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 13.95m AHD, with further rises in water level expected. Water levels in many weir pools in South Australia significantly increased in response to the heavy rainfall on 7-8 December 2010 as falls of around 80-100mm were recorded from the Lower Lakes to the South Australian border.

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 between Blanchetown 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 South Australian Border and Lock 1 (Blanchetown) 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.

The water levels immediately downstream of some locks 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 48,000 ML/day and further rises will occur - potentially to around 50,000 ML/day to 55,000 ML/day.

Water levels immediately downstream of Lock 1 remain high – currently at 3.07 AHD. This compares to minus 0.51m 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 3.3m 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 the higher flows and to draw down the water level in the Lower Lakes for improved salinity outcomes, particularly in Lake Albert. Some minor changes may occur to these operations to achieve specific environmental outcomes. The releases from the barrages have increased to approximately 50,000 ML/day, due to local rainfall and changed operations upstream.

River Murray water levels between Lock 1 and the Lower Lakes continue to rise 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 -0.75m above pool	1.1 – 1.5m AHD
Purnong to Swan Reach	0.75 – 1.75m above pool	1.5 – 2.5m AHD
Swan Reach to Lock 1	1.75 – 2.55m above pool	2.5 – 3.3m 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; and
- 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.