RIVER MURRAY FLOW ADVICE-UPDATE

Increased Flows to South Australia

Issued 17:00 31 December 2010

This supersedes the previous flow advice issued by the Department for Water (DFW) at 17:00, 24 December 2010. **This is NOT a Flood Warning.** A further update will be provided on Friday 7 January 2011.

DECEMBER 2010 to JANUARY 2011 FLOW OUTLOOK

Flow to South Australia has averaged 61,500 ML/day over the last week and is expected to remain within the range of 55,000 ML/day to 62,000 ML/day over the next week. As flow conditions upstream change, further flow updates will be provided. The flow has reduced slightly due to changed operations at Lake Victoria, increased evaporation and extractions of water. A higher peak flow of 90,000 ML/day is still expected around late January or early February 2011. The timing of the peak flow is sensitive to upstream river operations.

The current flow is due to a number of factors, including operations of structures upstream of South Australia limiting the ability to control river flow upstream of Lock 6 to Lock 11.

The high flow to South Australia is also partially due to implementing the Lake Victoria Operations Strategy. This strategy aims to protect native vegetation and the cultural heritage around the lake by minimising the amount of time water in the lake is held at a high level. The water level in Lake Victoria remains partially drawn down (currently 430 GL or 63% capacity) and this volume will reduce further. Lake Victoria will be partially refilled at a later stage given that high flow conditions are expected to remain for at least the next two months.

A small volume of water is now flowing into Lake Victoria through Frenchman's Creek to maintain the release of water from the Lake Victoria outlet regulator on the Rufus River. This action is necessary because of the high water level downstream of the outlet regulator resulting in a small head differential between the lake water level and the downstream water level.

The current flow will not result in water flowing over the banks 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.

Recent flooding across areas of the Queensland portion of the Murray-Darling Basin, such as the Condamine/Balonne River System, will provide additional inflow into the Barwon-Darling River System. It is too early however to predict any potential inflow into Menindee Lakes and the River Murray System.

Flow conditions to South Australia will remain steady during the coming week. The forecast peak flow of 90,000 ML/day is now likely to occur towards the end of January or early February 2011.

The predicted high flow to South Australia cannot be compared to the recent torrential rainfall events in Queensland, which have caused significant flooding in towns and rural areas. Rather, there will be a steady rise to the peak flow.

A flow of 90,000 ML/day is not a threat to towns and levee banks; however, some roads, campsites and causeways located on floodplains are likely to be inundated. 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.

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, and when trying to navigate through the navigable passes. The higher flow presents a hazard to watercraft with low horsepower engines.

Below Lock 1, particularly between Blanchetown and Mannum, relevant people 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 any localised wind effects.

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

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 and in mid-December 1992 flows peaked at 93,000 ML/day.

WATER LEVEL INFORMATION

SA Water and the Department for Water have developed a River Murray Water Level chart to provide projected water heights at a number of locations from Lock 9 to Murray Bridge. The table below outlines the projected water levels, which are based on previous events, but these may change as river conditions and operations upstream of the South Australian border change.

Water levels for two locations are not provided this week.

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 on 08 8595 2299

Location	River Km	Current Level (m AHD)	Predicted Peak level (m AHD)	Approx. Date of Peak	Further Rise (m)
Lock 10	825.0	31.13	32.34	24 Jan	1.21
Lock 9 Kulnine	764.8	27.78	28.95	27 Jan	1.17
Lock 8 Wangumma	725.7	25.93	26.85	28 Jan	0.92
Lock 7 Rufus River	696.6	24.20	25.05	29 Jan	0.85
Lock 6 Murtho	619.8	19.59	19.94	30 Jan	0.35
Renmark	567.4	16.58	17.40	2 Feb	0.82
Lock 5	562.4	16.39	16.90	2 Feb	0.51
Lyrup	537.8		15.60	3 Feb	
Berri	525.9	14.47	15.20	4 Feb	0.73
Lock 4	516.2	14.13	14.60	5 Feb	0.47
Loxton	489.9	12.64	13.70	6 Feb	1.06
Cobdogla	446.9		11.50	9 Feb	
Lock 3	431.4	9.89	10.90	10 Feb	1.01
O/L Corner	425.9	9.14	10.70	11 Feb	1.56
Waikerie	383.6	7.95	9.30	12 Feb	1.35
Lock 2	362.1	7.15	8.25	13 Feb	1.1
Cadell	332.6	5.70	7.15	14 Feb	1.45
Morgan	321.7	5.11	6.50	15 Feb	1.39
Blanchetown	274.2	3.54	4.50	16 Feb	0.96
Swan reach	245.0	2.17	3.60	17 Feb	1.43
Mannum PS	149.8	1.03	1.60	18 Feb	0.57
Murray Bridge	115.3	0.90	1.30	19 Feb	0.40

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.
- 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.

FLOOD RISK ABOVE LOCK 1
Pool levels between the border and Lock 1 will continue to change in response to the higher flow conditions. Options for managing weir pools for improved environmental outcomes are currently being considered. 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 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 2m to 3m 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 51,000 ML/day and a flow in the range of 48,000 ML/day to 52,000 ML/day is expected during the next week.

Water levels immediately downstream of Lock 1 remain high at 3.54m AHD. This compares to minus 0.48m AHD at the same time last year. The Lower Lakes are currently higher than their normal full supply level of 0.75m AHD. Water is being released from the barrages to manage the higher flow and to lower 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.

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 December 2010 flow increase, localised water level increases are expected to occur and indicative levels are shown in the table below. Note that these may be affected by localised wind conditions.

Reach	Projected level above normal pool (0.75m AHD)	Projected level AHD
Wellington to Murray Bridge	0.2 – 0.3m above pool	0.95 – 1.05m AHD
Murray Bridge to Mannum	0.3 – 0.45m above pool	1.05 – 1.2m AHD
Mannum to Purnong	0.45 – 0.85m above pool	1.2 – 1.6m AHD
Purnong to Swan Reach	0.85 – 2.05m above pool	1.6 – 2.8m AHD
Swan Reach to Lock 1	2.05 – 2.95m above pool	2.8 – 3.7m 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. This Department is monitoring the situation and working with the SES to ensure public safety.

Projected increased flow in December 2010 and January 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

The predicted additional flow 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 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.