RIVER MURRAY FLOW ADVICE AND WATER RESOURCE UPDATE

Flow to South Australia

Issued 10:00 am 18 November 2011

This supersedes the previous flow advice update issued by the Department for Water on 11 November 2011. A further flow advice will be provided on Friday 25 November 2011.

WATER RESOURCE UPDATE

The River Murray system inflow during October 2011 was approximately 800 gigalitres (GL). The long-term average inflow for the same period is 1,400 GL.

Inflow to the Upper River Murray and associated tributaries is expected to continue to decline. River Murray system inflow during November 2011 is expected to be at least 300 GL, which is below half the average inflow for November of 780 GL. However this volume may increase if further rainfall is received across the River Murray catchment during November 2011.

The total flow to South Australia from 1 July 2011 to 16 November 2011 is around 3,920 GL.

Unregulated flow to South Australia has now ceased. South Australia is receiving regulated flow conditions, which includes approximately 6 GL/day of Entitlement Flow and 3 GL/day of Additional Dilution Flow. In addition there will be a net trade adjustment upstream of 47 GL between November 2011 and April 2012 as a result of late season trade in 2010-11. Further extensions to the period of Additional Dilution Flow may occur if the storage volume triggers are maintained in Menindee Lakes, Hume and Dartmouth Reservoirs. The storage triggers are 2,000 GL in Hume and Dartmouth Reservoirs and 1,300 GL in Menindee Lakes until the end of May.

Throughout November and December 2011 environmental water will be released from the Goulburn system and make its way to South Australia in December 2011 and January 2012. This water will not create a pulse or high flow rates at the South Australian border. The freshwater flow into the Lower Lakes and out of the barrages will benefit migratory fish such as congolli, galaxias and lampreys, which need to return to saltwater to breed.

The possibility of further unregulated flow will depend on future rainfall events upstream and potential environmental watering events.

Storage Levels

Murray-Darling Basin Authority storage levels at 16 November 2011 and around the same time last year

Storage	Full Supply Volume GL	16/11/2011 GL	17/11/2010 GL	Long-term Average (end November) GL
Dartmouth	3,856	2,876 (75%)	2,001 (52%)	
Hume	3,003	2,802 (93%)	2,999 (100%)	
Lake Victoria	677	668 (99%)	649 (96%)	
Menindee Lakes (FSL)	1,731	1,903 (110%)	1,835 (106%)	
TOTAL	**9,267 (100%)**	**8,249 (89%)**	**7,484 (81%)**	**7,310 (78%)**

The current allocation announcements, and the allocation announcements around the same time in 2010, are summarised below.

State Water Allocation Summary

State Entitlement Type	15/11/2011*	15/11/2010
South Australia High Security	100%	67%
NSW Murray High Security	97%	97%
NSW Murray General Security	100%	64%
Murrumbidgee High Security	95%	95%
Murrumbidgee General Security	72%	56%
Lower Darling High Security	100%	100%
Lower Darling General Security	100%	100%
VIC Murray High Reliability Water Share	100%	100%
VIC Goulburn High Reliability Water Share	100%	100%

*Carryover may exist in addition to the current announced percentages in some systems

FLOW OUTLOOK

The flow to South Australia is currently in the region of 9,000 megalitres per day (ML/day). Flow over the coming week will be in the range of approximately 8,500 – 9,500 ML/day.

Flow at Lake Victoria inlet regulator is 890 ML/day and flow at the outlet regulator is 1,200 ML/day. The current storage volume in Lake Victoria is 668 gigalitres (99% capacity).

The flow over Lock 1 is currently around 9,000 ML/day and will gradually reduce.

Throughout November and December 2011 environmental water will be released from the Goulburn system and make its way to South Australia in December 2011 and January 2012. Approximately 60,000 ML of The Living Murray water and up to 96,900 ML of Commonwealth environmental water will be delivered to South Australia, with the majority being delivered to the Lower Lakes and Coorong. Delivery of this water will help to maintain barrage releases over summer, improve and maintain salinity levels in the Lower Lakes and Coorong and maintain connectivity and fish movement between Lake Alexandrina and the Coorong.

As release rates in the Goulburn will not exceed 5,600 ML/day, the planned release of environmental water will not create a pulse or high flow rates at the South Australian border. South Australia may also receive additional environmental water over summer from the Commonwealth Environmental Water Holder (CEWH). Further information will be provided following advice from the CEWH.

This year is likely to be the first time since 2001-02 where the majority of South Australia's Entitlement Flow over summer and autumn will be supplied, in large part, from water transferred from Menindee Lakes to Lake Victoria via the Lower Darling River. As a result of this change in water source, turbidity levels may increase over summer and some River Murray water users may need to implement appropriate treatment measures. The Murray-Darling Basin Authority provided a Lower Darling River flow advice (http://www.mdba.gov.au/files/flow-advice-menindee.pdf) on 4 November 2011, which states that releases will commence later in November 2011.

SALINITY OUTLOOK

As water levels return to the normal height, some locations along the River Murray may experience higher salinity. Salinity increases will be particularly noticeable in areas adjacent to the main channel.

During a high flow event that results in overbank flow, salt can be mobilised into the main channel of the River Murray from the floodplain, wetlands, creeks and groundwater as the flow recedes. During the drought salinity levels remained relatively low because water was being provided from the headwater storages and tributaries and the flow remained in channel.

The Additional Dilution Flow that is currently expected to continue into January 2012 will help mitigate some of the impact of localised salinity increases. The Department for Water is increasing salinity monitoring and will undertake detailed modelling of the 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 0.75m AHD and the water level in Lake Albert is approximately 0.72m AHD. Barrage gates will be operated to maintain the water level in Lake Alexandrina at approximately the current target water level of 0.75 - 0.8m AHD. Water levels and barrage operations are continually monitored by the Department for Water, SA Water and the Department of Environment and Natural Resources.

It is important to note that water levels in the Lower Lakes may 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 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/vic/flood
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 16 November 2011

Location	River Km	Normal Pool Level	Current Level (m AHD)
Lock 10	825.0	30.82	30.85
Lock 9 Kulnine	764.8	27.41	27.46
Lock 8 Wangumma	725.7	24.60	24.62
Lock 7 Rufus River	696.6	22.18	22.22
Lock 6 Murtho	619.8	19.24	19.34
Renmark	567.4	16.28	16.36
Lock 5	562.4	16.28	16.35
Lyrup	537.8	13.28	13.32
Berri	525.9	13.25	13.28
Lock 4	516.2	13.21	13.25
Loxton	489.9	10.18	10.20
Cobdogla	446.9	9.85	9.85
Lock 3	431.4	9.84	9.82
Overland Corner	425.9	6.44	6.47
Waikerie	383.6	6.31	6.28
Lock 2	362.1	6.14	6. 14
Cadell	332.6	-	N/A*
Morgan	321.7	3.37	3.31
Lock 1 Blanchetown	274.2	3.25	3.19
Swan Reach	245.0	0.89	0.82
Mannum PS	149.8	0.76	0.85
Murray Bridge	115.3	0.69	0.71

*N/A – reading not available.
Note that water levels do not take into account local wind conditions.
Regularly updated daily 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.