

# River Murray Water Resources Report



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## Observations at a glance

- Rainfall across northeastern Victoria remains below average, although some good rainfall (50-100mm) was received in late October and early November.
- Just 1 420 GL flowed into the River Murray system from 1 June 2007 to 31 October 2007, well below the long-term average for this period of about 7 500 GL.
- About 187 GL flowed into the River Murray system during October.
- Despite the recent rainfall, storage volumes continue to decline and are currently 1 994 GL (21% of capacity).
- Flows to South Australia have increased during November 2007 to 3 400 ML/day, which is substantially lower than the normal minimum entitlement flow of 6 000 ML/day.
- Salinity levels upstream of Lock 1 have decreased as a result of the salinity dilution flows and recent rainfall.
- Below Lock 1 salinity levels continue to increase due to the low volume of water available for salinity dilution.
- Increases in salinity levels are expected in 2008 if low inflow conditions persist.

# Summary of Murray-Darling Basin storages

Storage volume at the end of October 2007 was 2 030 GL (22% of capacity), significantly below the long-term average storage volume for the end of October of 7 190 GL (76% of capacity). Table 1 outlines the end of October storage volumes for the Murray-Darling Basin. Figure 1 shows the storage volumes as of 15 November 2007.

#### Figure 1: Storage volumes



Storage	Full Supply	October 2007	October 2006	October 2005	October 2004	October 2003	October 2002
Dartmouth Reservoir	3 906	699	1787	2429	1816	1737	2426
Hume Reservoir	3 038	834	336	2751	1458	2217	671
Lake Victoria	677	457	500	667	626	664	480
Menindee Lakes	1731	40	213	462	275	53	206
TOTAL	9352	2030 (22%)	2 836 (30%)	6 309 (67%)	4 175 (44%)	4 671 (50%)	3 783 (40%)



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Droughtlink Hotline 180 20 20

## **River Murray inflows**

Below average rainfall since August 2007 has reduced River Murray inflows. During October 2007 just 187 GL flowed into the River Murray system. While this was the third lowest inflow for the month of October since 1892, it was higher than the 78 GL recorded in October 2006. However, rainfall in late October and early November 2007 has increased inflows at a number of locations, including the Ovens and Kiewa Rivers in Victoria. The Murray-Darling Basin Commission (MDBC) last week advised that:

- Ovens River increased from 700 ML/day to 3 700 ML/day;
- Kiewa River increased from 500 ML/day to 2 500 ML/day;
- Dartmouth Reservoir inflows increased from 1 000 ML/day to 3 500 ML/day; and

 Hume Reservoir inflows increased from 800 ML/day to 2 000 ML/day.

Periods of hot weather over the next few months will reduce inflows into the River Murray. If low inflows continue, there is a significant chance of storage volumes falling to unprecedented low levels by the end of May 2008. As the main rainfall/runoff period is now over and the chances of receiving higher inflows to replenish the storages are significantly diminished, the South Australian Government is preparing contingency plans to secure water for critical supplies for 2008/09.

The MDBC is continuing to conserve as much water as possible by lowering weir pools upstream of South Australia to supply downstream requirements. Lowering weir pools also reduces evaporative losses from the River Murray.

## SA River Murray operations

The daily flow into South Australia is averaging 3 400 ML/day, compared to the normal minimum entitlement flow of 6 000 ML/day, and the average of 5 500 ML/day in November 2006.

The current flow includes the provision of a salinity dilution flow of 700 ML/day. A contingency flow of 70 GL has been set aside for blue green algae management should an outbreak occur in the next few months. Currently, only 480 GL of the normal 696 GL dilution flow is being delivered, including the 333 GL to account for losses between the South Australian border and Wellington.

Weir pools are being maintained at full supply immediately upstream of the weirs. Table 2 outlines the water level and salinity data at the weir pools, Lake Alexandrina and Lake Albert.

The current volume of water available for dilution flows is not sufficient to maintain water levels downstream of Lock 1.

	Actual Water Levels		Full Supply Level	Variation from Pool Level	EC Level			
	U/S mAHD	D/S m AHD	U/S of Weir m AHD	U/S of Weir m AHD				
Lock 6	19.27	16.29	19.25	0.02	179			
Lock 5	16.30	13.28	16.30	0.00	215			
Lock 4	13.21	10.10	13.20	0.01	295			
Lock 3	9.80	6.26	9.80	0.00	465			
Lock 2	6.15	3.30	6.10	0.05	614			
Lock 1	3.25	0.16	3.20	0.05	744			
Lake Alexandrina	0.11				2810			
Lake Albert (Meningie)	0.06				2620			
Goolwa					15323			
Lake Alexandrina and Albert water and salinity Levels based on 5 day average								
Water levels below Lock 1 are affected by wind and will vary throughout the day								
EC Readings below Loc	k 1 are daily	averages and will	vary throughout the	e day				

#### Table 2: Water and salinity levels

# South Australian River Murray water allocations

Minister for the River Murray, Karlene Maywald, has announced that South Australian Murray irrigation allocations will increase to at least 22% from 1 December 2007 following heavy rain across much of the basin during late October and early November. For further information see the media release at the following link: www.dwlbc.sa.gov.au/media.html

### Figure 2: Flows to South Australia

## Bureau of Meteorology outlook: November to January 2007

The Bureau of Meteorology has indicated that there is about 50% chance of exceeding median rainfall over the next three months across the southern Murray-Darling Basin. There is a 65-70% chance of above average maximum temperatures over the same period.



Figure 2 shows the flows to South Australia from 1 July to 12 November for the years 2005, 2006 and 2007, compared to the normal daily entitlement flow.

### Figure 3: River Murray flows and salinity in South Australia



Figure 3 shows the changes in River Murray salinity levels since January 2007.

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# Further information on River Murray conditions and rainfall forecasts can be obtained from the following websites:

Department of Water, Land and Biodiversity Conservation www.dwlbc.sa.gov.au SA Murray-Darling Basin NRM Board www.rivermurray.sa.gov.au/AWMN/awsview.php Murray-Darling Basin Commission www.mdbc.gov.au Bureau of Meteorology www.bom.gov.au SA Water Daily Reports www.riverland.net.au/%7Eheinz/ex-flow-frame.htm Queensland Department of Primary Industry www.longpaddock.gld.gov.au