
RIVER MURRAY UPDATE

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DEPARTMENT FOR
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Government of South Australia
Department for Water

Rainfall and inflow summary

Several rainfall events, particularly in early September 2010, have significantly improved water availability in storage, River Murray system inflow and the seasonal outlook. River Murray system inflow during September has improved to about 2,850 GL, which is well above the long-term average of 1,600 GL.

Lake Victoria is filling rapidly from the higher flow and is currently at 655 GL (or 98% capacity). The full supply volume in Lake Victoria is 677 GL. Improved inflow is contributing to unregulated flow to South Australia, which commenced on 1 September 2010.

While the River Murray system inflow has significantly improved, even greater inflow is required for full recovery from the drought conditions of recent years. One month of above average inflow is not enough for the riverine environment to recover. Many of the floodplains along the lower River Murray have not received water for more than a decade, and would require significant volumes of water over a number of years to recover.

Widespread and continuing rainfall in south-west Queensland has resulted in improved inflow over much of this region during September and October 2010. Rainfall recorded across northern New South Wales will result in improved inflow into the Barwon-Darling River system.

The Murray-Darling Basin Authority (MDBA) began transferring water from Menindee Lakes to Lake Victoria on Friday 15 October 2010. The release from the outlets on Lakes Menindee, Pamamaroo and Wetherell will be increased gradually over about one week to target a flow downstream of Weir 32 of about 9,000 ML/day. With Lake Victoria being effectively full the releases may help to extend the duration of unregulated flow to South Australia. This water may start arriving towards the end of October or early November 2010 but will not boost the peak flow to South Australia.

The following table shows Murray-Darling Basin storages at 15 October 2010.

Storage @ 15 October 2010	Full Supply Volume	Current volume and % (GL)	Volume and % at this time last year (GL)	Change in volume from this time last year (GL)
Hume Dam	3,003	2,523 (83%)	1,113 (28%)	(+ 1410)
Dartmouth Dam	3,856	1,800 (46%)	1,120 (29%)	(+ 680)
Lake Victoria	677	655 (98%)	316 (47%)	(+ 339)
Menindee Lakes	1,731	1,874 (108%)	205 (12%)	(+ 1669)
Total volume	9,267	6,852 (74%)	2,754 (30%)	(+ 4098)

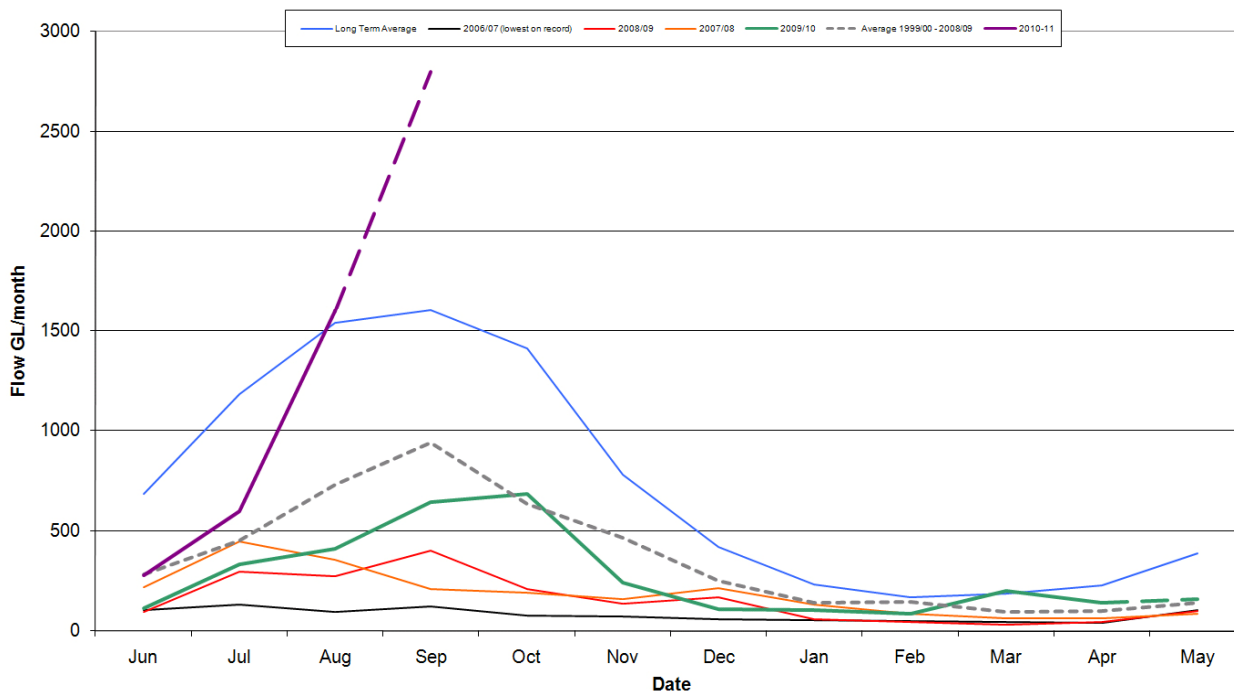
The following table shows River Murray system inflows (excluding Menindee) from June to September in various years.

MDBA Water Year (June to May)	June-September River Murray inflow (GL - rounded totals)
2005-06	3,700
2006-07	460
2007-08	1,230
2008-09	1,070
2009-10	1,500
2010-11	5,330
Past 10 years	5,010
Long-term average	2,400

Inflow graph

The following graph shows River Murray system inflows (excluding Menindee and Snowy inflows) in various years.

River Murray System Inflows (excluding Menindee Inflows and Snowy Releases)



River operations in South Australia

South Australia has received more than 530 GL of unregulated flow since 1 September 2010. The normal entitlement flow of 5,500 ML/day is being provided during October 2010, along with additional dilution flow (ADF) of 3,000 ML/day. The MDBA has advised South Australia that ADF will be supplied until the end of January 2011. Based on this advice, about 550 GL of ADF will be received, in addition to any unregulated flow to South Australia. Unregulated flow from the September 2010 high inflow event could eventually total about 700 GL.

ADF may be extended if the volume of water stored in Menindee Lakes remains above 1,300 GL beyond January 2011.

The flow to South Australia is currently 28-30 GL/day and this high flow will be maintained until at least 22 October 2010, when flow will gradually start to reduce. High flow could occur in November 2010 if the current rainfall produces good inflow into the River Murray system.

As the majority of weir pools are being maintained at their normal full supply level, extra flow will cause a noticeable rise in water level immediately downstream of each Lock, including Lock 1. In addition towards the lower end of each weir pool above Lock 1, water level will also be higher than normal level. This may lead to some local salinity impacts as backwaters are flushed and as the height within weir pool varies. To check local water level and salinity conditions visit the SA Water website at www.sawater.com.au and the Department for Water website at www.waterforgood.sa.gov.au.

The water level immediately downstream of Lock 1 has started to rise above the normal operating level. The downstream water level is currently 1.78m AHD, which is 103cm above the normal 'Full Supply Level' of 0.75m AHD. This increased water level is likely to be noticeable under higher flow conditions to Swan Reach, after which the water level will flatten out.

Water users within this area below Lock 1 are encouraged to make any necessary temporary changes to pumping infrastructure to allow for higher flows over Lock 1 and any further rise in water level.

Based on the current outlook, the extra flow in South Australia will remain within channel capacity and no flooding is expected. Weir pools will be adjusted to reduce the impact of higher flow at a number of construction sites, including Chowilla, Lock 4 and Lock 2.

Information about river operations upstream of the South Australian border is available online at <http://data.rivermurray.sa.gov.au/Telemetry/Default.aspx?App=RMW>

Water allocations in South Australia and interstate

General allocations in South Australia remain at 67 percent. Access to 100 percent (228 GL) of carryover has been in place from 1 July 2010.

The latest information about allocations in New South Wales is available at <http://www.water.nsw.gov.au/>

The latest information about allocations in Victoria is available at <http://www.g-mwater.com.au/news/media-releases>

The following table outlines the current water allocations in South Australia, New South Wales and Victoria.

System	1 Jul 2010	15 Jul 2010	2 Aug 2010	16 Aug 2010	1 Sep 2010	15 Sep 2010	1 Oct 2010	15 Oct 2010
South Australia High Security	21%	24%	31%	34%	41%	63%	67%	67
NSW Murray High Security	0%	10% [#]	40%	70%	97%	97%	97%	97%
NSW Murray General Security	0%	0%	0%	0%	8%	36%	36%	42%
Murrumbidgee High Security	30%	30%	80%	95%	95%	95%	95%	95%
Murrumbidgee General Security	0%	0%	0%	0%	9%	45%	47%	51%
Lower Darling High Security	100%	100%	100%	100%	100%	100%	100%	100%
Lower Darling General Security	100%	100%	100%	100%	100%	100%	100%	100%
Victoria Murray High Reliability Water Share	0%	0%	2%	23%	57%	94%	97%	100%
Goulburn High Reliability Water Share	0%	0%	5%	26%	41%	67%	70%	80%

[#]NSW announced a 10% allocation on 20 July 2010

The combined High and General Security water entitlements of about 90 GL in the Lower Darling are very small compared to the other areas listed above. For example, in South Australia 90 GL equates to around 14% general allocation.

Salinity and water levels

Salinity levels in Lake Alexandrina are currently averaging 2,050 EC. Salinity in Lake Albert remains high at about 7,500 EC but is reducing steadily with the mixing of water from Lake Alexandrina.

The average water level in Lake Alexandrina, Lake Albert and the Goolwa Channel is currently about plus 0.73m AHD.

The following table shows the current water levels and salinity at selected locations.

	Actual Water Levels at 15/10/10		Full Supply Level U/S of Weir m AHD	Current EC level
	U/S m AHD	D/S m AHD		
Lock 6	19.24	18.07	19.25	218
Lock 5	16.13	14.74	16.30	198
Lock 4	13.22	12.22	13.20	183
Lock 3	9.83	8.04	9.80	197
Lock 2	9.19	4.97	6.10	218
Lock 1	3.23	1.81	3.20	219
Lake Alexandrina (average)	+0.73			2,050
Lake Albert (average)	+0.73			7,500
Goolwa	+0.73			3,250
Water levels below Lock 1 are affected by wind and will vary throughout the day EC Readings below Lock 1 are averages and will vary throughout the day				

Climate outlook

According to the Bureau of Meteorology, during October to December 2010 there is a 50%-60% chance of exceeding median rainfall across the Murray-Darling Basin, and a 40-75% chance of exceeding median maximum temperatures.

Information on the seasonal outlook can be accessed online at www.bom.gov.au

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