
RIVER MURRAY UPDATE

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DEPARTMENT FOR
WATER



Rainfall and inflow summary

River Murray system inflows improved during July 2010 as a result of considerable rainfall over a wet catchment. Inflows for July are currently estimated to be about 590, which is higher than the 555 GL received in July 2005 but slightly lower than the 610 GL received in July 2003. The average July inflow over the past 10 years is 450 GL.

Prior to rainfall in mid-July, inflows for the month were forecast to be just 280 GL.

While inflow conditions have improved, it is important to note that recovery from the current drought may take several years. Recovery will involve refilling the main operational storages (see table below), increasing water levels in Lakes Alexandrina and Albert, and the resumption of freshwater releases into the Coorong through the barrages.

The following table shows Murray-Darling Basin storages at 30 July 2010.

Storage @ 30 July 2010	Volume (GL)	% of Capacity	Approximate volume at this time last year	Change in volume from this time last year (GL)
Hume Dam	1,081	36	539	(+)542
Dartmouth Dam	1,347	34	889	(+)458
Menindee Lakes	1,562	90	247	(+)1,315
Lake Victoria	389	57	290	(+)99
Total volume	4,379	47	1,965	(+)2,414

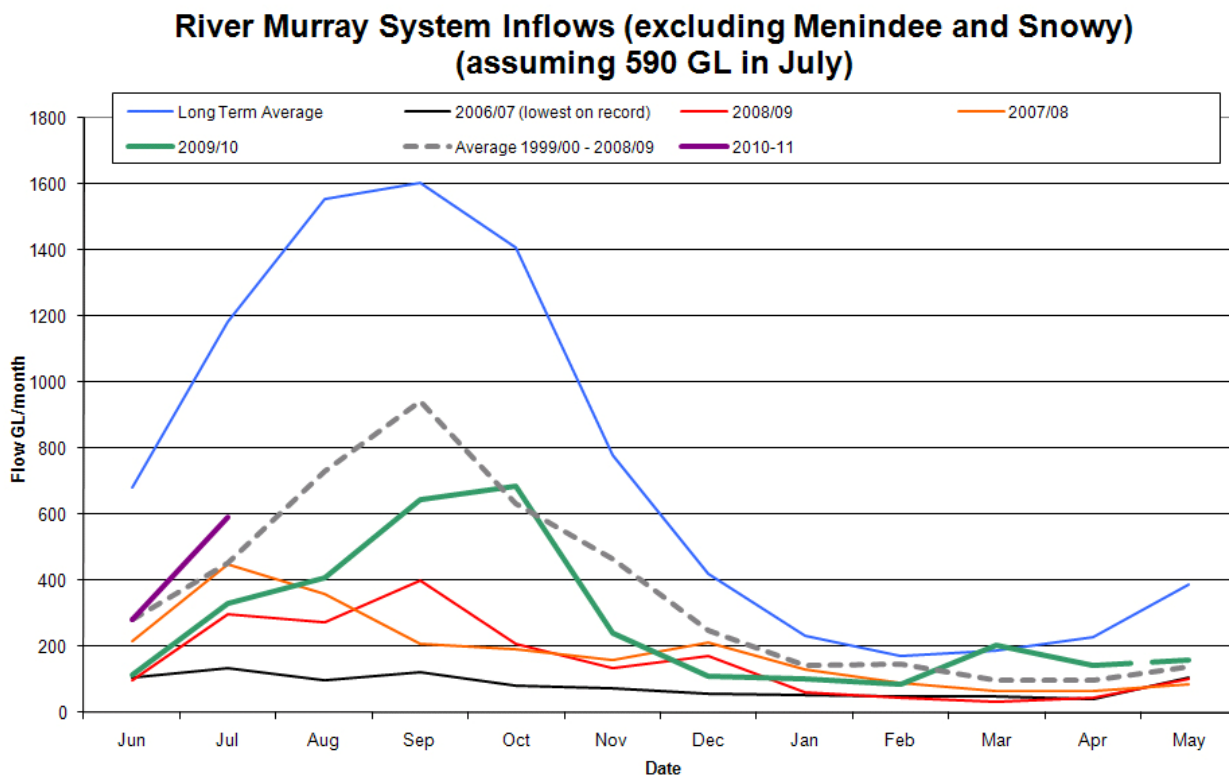
The following table shows River Murray system inflows (excluding Menindee) during June and July in various years.

MDBA Water Year (June to May)	June-July River Murray inflow (GL - rounded totals)
2005-06	825
2006-07	240
2007-08	660
2008-09	395
2009-10	445
2010-11	870*
Past 10 years	740
Long-term average	1,870

*Assumes 590 GL in July 2010

Inflow graph

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



River operations in South Australia

Flows to South Australia will be maintained at the normal monthly entitlement flow (4,000 ML/day) during August 2010. During August and September the flow to South Australia will be further enhanced by Additional Dilution Flows (ADF). These are additional flows provided to South Australia (3,000 ML/day) to mitigate salinity. They are provided when storage levels in upstream storages surpass certain levels. The 'trigger' levels for the next two months are:

- August – Menindee Lakes 1,500 GL and Hume and Dartmouth (combined) 2,000 GL; and
- September - Menindee Lakes 1,300 GL and Hume and Dartmouth (combined) 2,000 GL.

The Murray-Darling Basin Authority has advised South Australia that 150 GL will be delivered as Additional Dilution Flows.

Flow into South Australia is managed on a weekly basis during cooler months when demand is lower, and on a daily basis during warmer months when demand is higher. Currently, the flow to South Australia is averaging 4,500 ML/day and the average flow over Lock 1 is 3,300 ML/day.

The Government of South Australia has committed a minimum of 520 GL towards Lake Alexandrina for 2010-11, comprised of 350 GL of base flow past Wellington and 170 GL for the 2010-11 Lower Lakes Environmental Reserve. Some of this water will be pumped into Lake Albert.

As improvements in water availability are received additional water will be made available, in accordance with the 2010-11 River Murray Drought Water Allocation Decision Framework. The flow into South Australia and the flow over Lock 1 will be adjusted as additional water becomes available.

Information about river operations upstream of the South Australian border is available from the Murray-Darling Basin Authority website www.mdba.gov.au

Salinity and water levels

Salinity levels in Lake Alexandrina have improved over the past few months and are currently averaging 3,500 EC. However, salinity in Lake Albert remains high at about 13,600 EC.

The average water level in Lake Alexandrina is currently about plus 0.01m AHD, and in Lake Albert the average water level is about minus 0.38m AHD. Pumping from Lake Alexandrina to Lake Albert has temporarily ceased and, depending on water level, it is anticipated that pumping may recommence in September 2010.

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

	Actual Water Levels at 30/07/10		Full Supply Level U/S of Weir m AHD	Current EC level
	U/S m AHD	D/S m AHD		
Lock 6	19.27	16.30	19.25	162
Lock 5	16.31	13.31	16.30	191
Lock 4	13.21	10.54	13.20	256
Lock 3	9.81	6.24	9.80	294
Lock 2	6.10	3.32	6.10	305
Lock 1	3.23	-0.02	3.20	313
Lake Alexandrina (average)	+0.01			3,500
Lake Albert (average)	-0.38			13,600
Goolwa	+0.20			20,350
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				

Water allocations in South Australia and interstate

South Australian River Murray irrigation allocations have increased from 24% to 31% from 2 August 2010 following an improvement in the volume of water available to South Australia. The allocation is considerably higher than at this time last year, when irrigation allocations were still at 5%. The increased allocation is based on South Australia receiving a minimum of 1,591 GL during 2010-11 under a “worst case” scenario.

A copy of the Minister’s full 2 August 2010 announcement can be viewed at the Water for Good website (under the “Latest News” heading) at www.waterforgood.sa.gov.au/

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 July 2010	1 July 2009*	15 July 2010	15 July 2009	2 August 2010	1 August 2009
South Australia High Security	21%	2%	24%	2%	31%	5%
NSW Murray High Security	0%	0%	10% [#]	3%	40	8%
NSW Murray General Security	0%	0%	0%	0%	0	0%
Murrumbidgee High Security	30%	0%	30%	0%	80	5%
Murrumbidgee General Security	0%	0%	0%	0%	0	0%
Lower Darling High Security	100%	0%	100%	100%	100%	100%
Lower Darling General Security	100%	0%	100%	0%	100%	0%
Victoria Murray High Reliability Water Share	0%	0%	0%	0%	2	0%
Goulburn High Reliability Water Share	0%	0%	0%	0%	5	0%

*At 1 July 2009 there was a shortfall in the volume of water required to operate the River Murray system and special water sharing arrangements were implemented

[#]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.

Carry-over

South Australia will continue to have the option to access upstream storages to store water for carryover. This process is currently undertaken through the Murray-Darling Basin Agreement. The Murray-Darling Basin Authority is drafting South Australia's Storage Right Schedule (Schedule G) to formalise the arrangements beyond 2010-11, which may differ from the current arrangements.

New water sharing framework – User's Guide available

Any improvement in the amount of water available to South Australia during 2010-11 will be shared between all water uses in accordance with the 2010-11 River Murray Drought Water Allocation Decision Framework.

This Framework optimises the way that the limited amount of River Murray water available to South Australia is shared between different uses, including irrigation, critical human needs and the environment. Under the Framework, improvements in allocations will be provided as early as possible in 2010-11 to provide surety for licensed water users.

A 'User's Guide' to the framework has been produced by the Department for Water. To access a copy of this guide visit the Water for Good website at www.waterforgood.sa.gov.au/ or contact the Department for Water on **(08) 8463 6871**.

Climate outlook

According to the Bureau of Meteorology, during the period August to October 2010 there is a 50% chance of exceeding median rainfall across the Murray-Darling Basin, and a 60%-65% chance of exceeding median maximum temperatures.

Climate forecasting is complex and a number of different factors influence climate in Australia. These factors include the Indian Ocean Dipole (IOD) and Southern Oscillation Index (SOI), which have an influence on rainfall patterns and El Nino/La Nina events. Climate models are currently showing an increased probability of improved rainfall during 2010-11.

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

Water resource outlook

Water resource availability conditions across the Murray-Darling Basin continue to improve as a result of recent rainfall across north-eastern Victoria and the upper Murray catchment.

This improvement means South Australia started 2010-11 in a better position compared to the previous three years and special water sharing arrangements were not required as there was sufficient water available to all states.

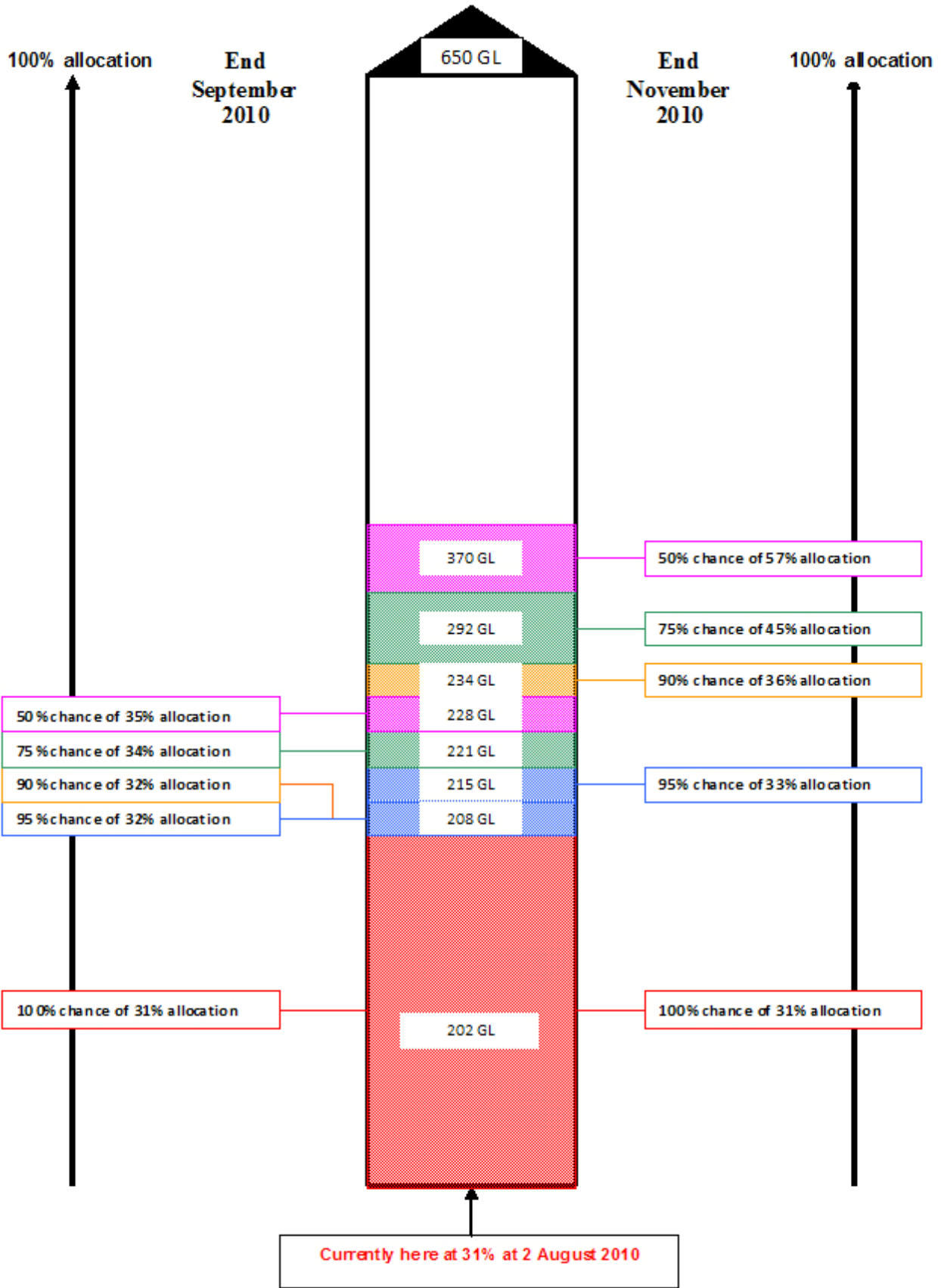
Therefore, South Australia will receive 100% of improvements, unlike the past three years where water advanced to South Australia by New South Wales and Victoria to run the river had to be repaid and only 50% of improvements were available for allocation.

The diagram on the following page shows the probability of receiving different irrigation allocations in 2010-11, to the end of November 2010.

The allocation outlook is based on information provided by the Murray-Darling Basin Authority. The 2010-11 River Murray Drought Water Allocation Decision Framework has been applied to the data to generate the outlook for general allocations. The data used in this assessment is based on South Australia's entitlement improvement distribution over the past 10 years.

In addition to allocating water for general allocations, the 2010-11 River Murray Drought Water Allocation Decision Framework allocates water for 2011-12 critical human water needs and additional water for the Lower Lakes during 2010-11, which is not included in the diagram.

The allocation outlook is conservative for general allocations and the framework will be reviewed by the end of November 2010.



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