



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 06 JUNE 2012

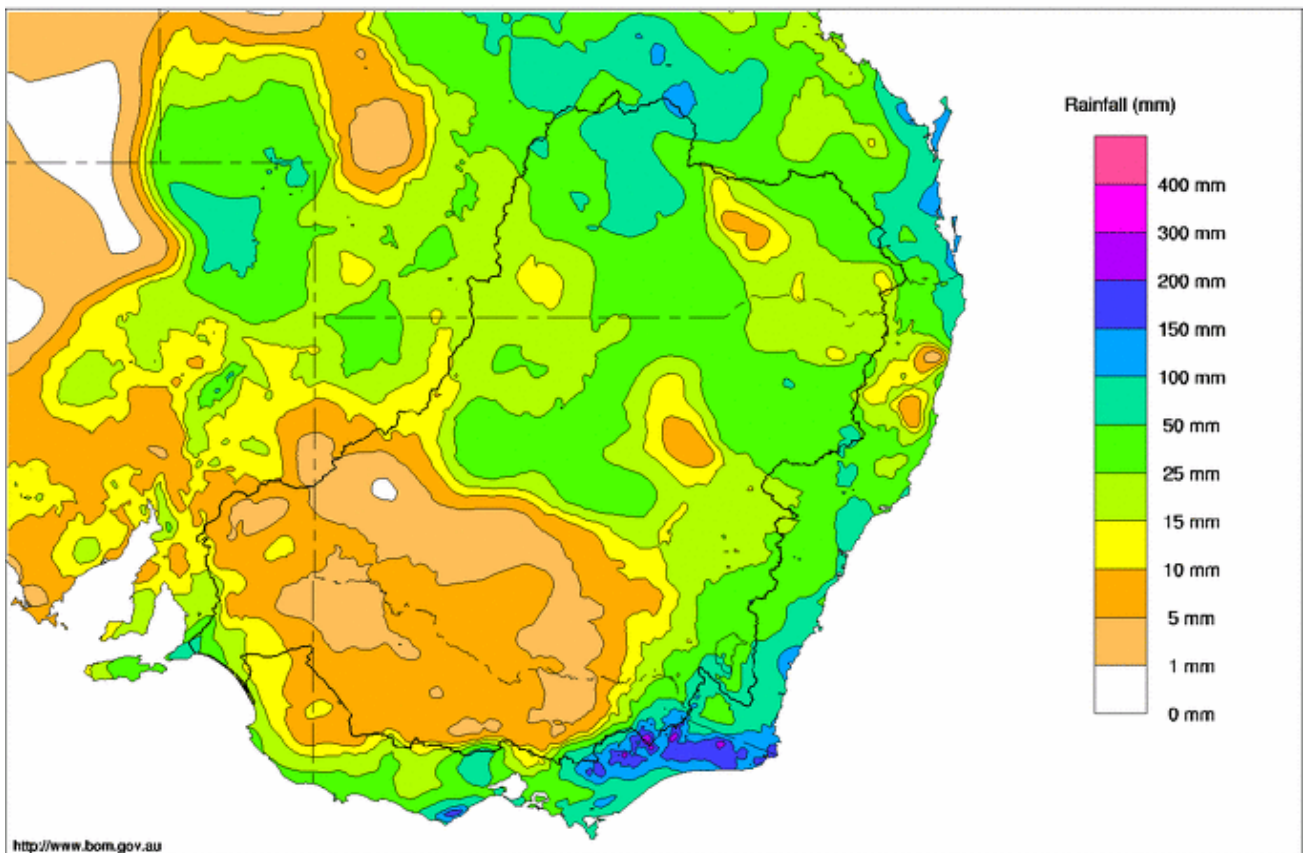
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Rainfall and Inflows

June got off to a wet start in some parts of the Murray-Darling Basin with renewed rainfall across many of the areas that received rain last week. The rain was caused by a trough that moved southwards from Queensland over the weekend before intensifying into a complex low pressure system off the south-east coast of Australia. Rainfall totals between 15 and 50 mm were widespread across the northern and eastern Basin, with heavier totals in the far north. Very heavy totals were recorded in the far south-east in the last few days as intense rain moved across Victoria's Gippsland region and into the upper Goulburn, Mitta Mitta and Murray catchments (Map 1).

Highest rain totals for the Basin were recorded in the upper Mitta Mitta catchment including 170 mm at Omeo and 92 mm at Joker Creek. Elsewhere in the Victorian high country there was 95 mm at Falls Creek and 93 mm at Mt Hotham and in the upper Goulburn catchment there was 149 mm at Woods Point. In NSW there were totals over 100 mm across the Snowy Mountains, while in the far north there was 72 mm at Mitchell in Queensland's upper Maranoa catchment.

Murray Darling Rainfall Totals (mm) Week Ending 6th June 2012
Product of the National Climate Centre



Map 1 - Murray-Darling Basin rainfall for the week ending 6 June 2012 (Source: Bureau of Meteorology).

Rapid streamflow responses in the upper Mitta Mitta River have resulted in major flooding upstream of Dartmouth Dam, where the flow at Hinnomunjie increased from 800 ML/day to a peak of around 30,000 ML/day over several hours on 5 June. The river has now receded to a flow of 10,500 ML/day. There were also good responses in the upper River Murray, with minor flooding at both Biggara and



Bringenbrong. At Biggara, the flow peaked above 13,000 ML/day on 5 June; while at Bringenbrong the flow increased to a peak of around 20,000 ML/day on 6 June. High flows are now expected downstream at Jingellic during the next few days, although the river is expected to remain below the minor flood level at this gauge. For information regarding flood warnings, see the Bureau of Meteorology website at www.bom.gov.au/.

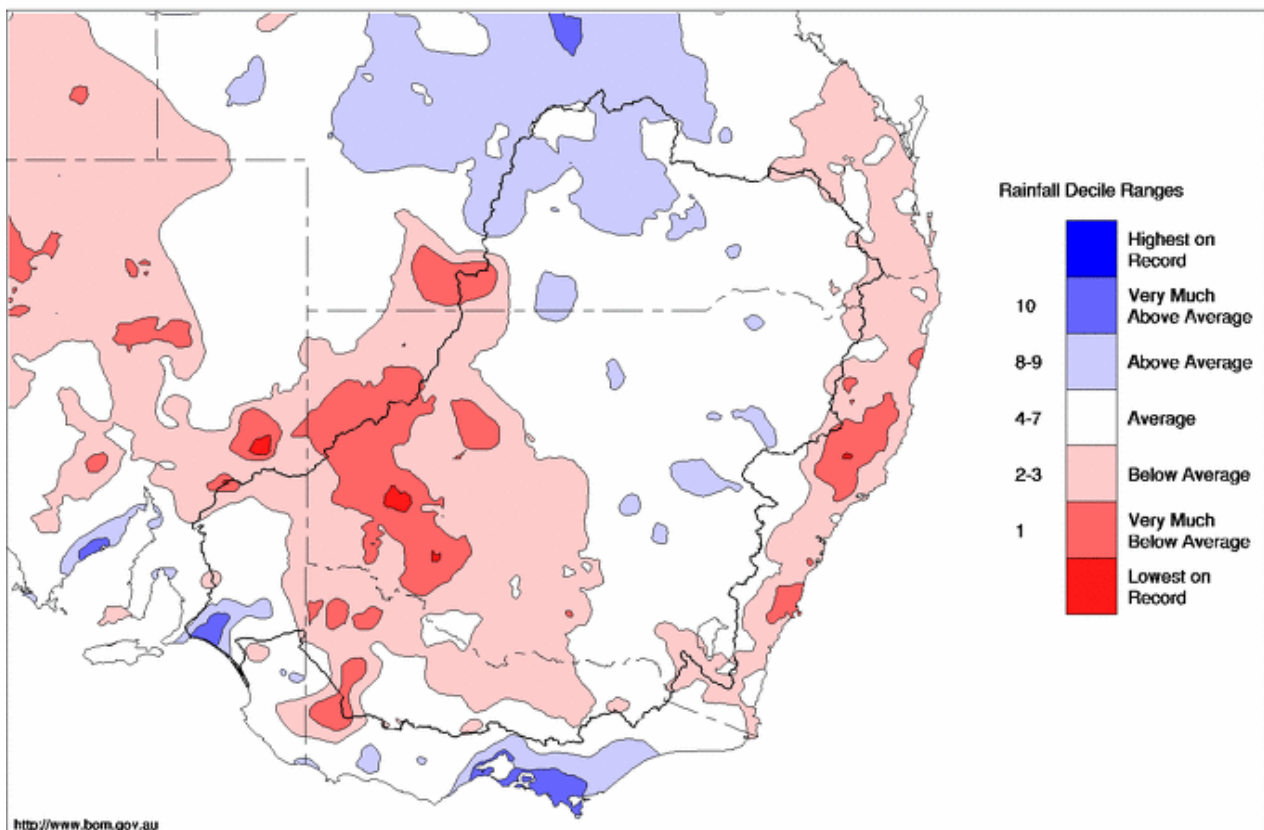
May 2012 Summary

Conditions across the Basin were very dry for the first three weeks of May; however rain that fell towards the end of the month brought totals across eastern and far southern areas up close to average. Very little rain was recorded across most of the west of the Basin and this resulted in below average to 'very much below average' rainfall for most of western NSW and north-western Victoria, although a small area around the Lower Lakes in South Australia received 'above average' to 'very much above average' rainfall (Map 2).

Averaged across the Basin, the Bureau of Meteorology reports that May was the 44th driest in 113 years of records with a total of 24.8 mm (41% below the mean). Maximum temperatures during May were mostly close to or slightly above the average, although with the run of stable and clear weather through much of the month, minimum temperatures were low, with some areas experiencing overnight temperatures (averaged across the month) that were the lowest for several decades.

Inflows to the River Murray system are still being affected by the extreme rain event of late February and early March. Despite the relatively dry month across the Basin, River Murray system inflows (excluding Darling River and Snowy inflows) were around 880 GL, which is the 11th highest ever recorded and the highest since 1989.

Murray-Darling Rainfall Deciles May 2012
Distribution Based on Gridded Data
Product of the National Climate Centre



<http://www.bom.gov.au>

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Issued: 03/05/2012

Map 2 - Murray-Darling Basin rainfall deciles for May 2012 (Source: Bureau of Meteorology).



River Operations

MDBA active storage increased by 69 GL this week and is now 7,626 GL (89%). The beginning of June and the start of winter marks the transition to a new 'water year' for the River Murray system and the commencement of the winter-spring period is typically when tributary inflows increase and headwater storages are replenished. The water year is used by the MDBA to manage and report on system inflows, demands and storage levels across a 12 month period in a way that best matches the system's usual hydrological and demand cycle.

The 2011-12 water year saw a notable deviation from this cycle, and like the 2010-11 year, was characterised by rain and inflow patterns that were considerably different from the long term average (see diagrams on page 7). Most notably, record rainfall and system inflows took place during late summer and early autumn 2012 when in a more typical year the system is drying out. These weather and inflow conditions have pushed water storages in the River Murray system to very high levels for this time of the year. Since the addition of Dartmouth Reservoir to the suite of River Murray system storages in 1979, the 'end of May' total combined volume held in Dartmouth, Hume, Menindee and Lake Victoria has never been higher than at the end of the 2011-12 water year (Figure 1).

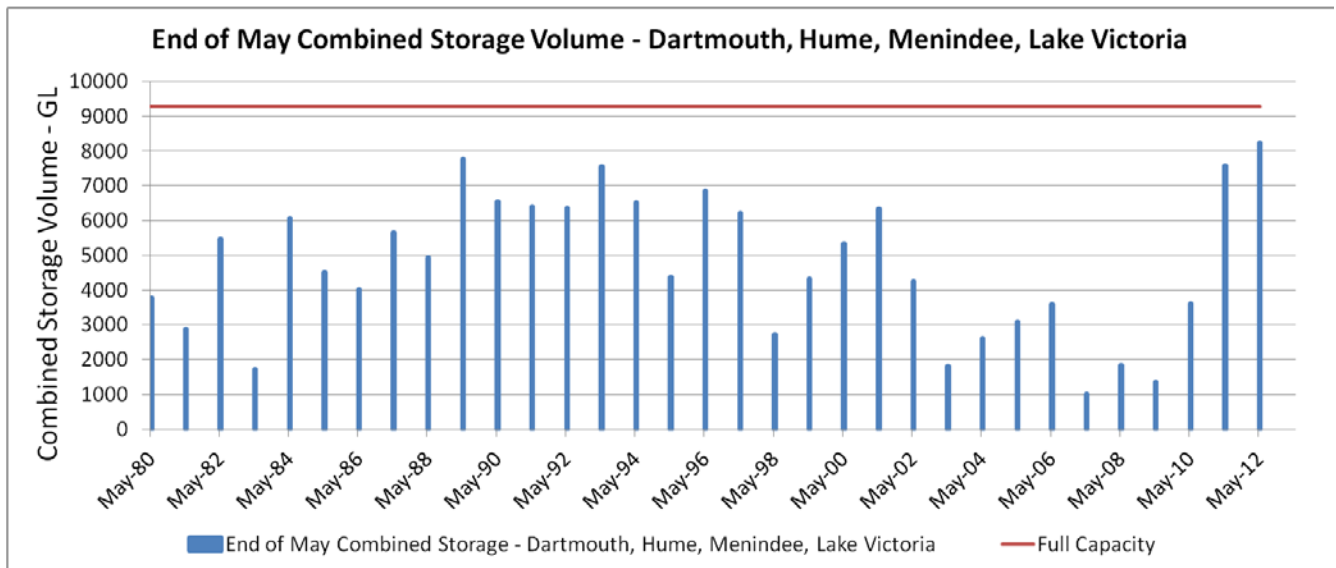


Figure 1 – Total combined storage volume for Dartmouth Reservoir, Hume Reservoir, Menindee Lakes and Lake Victoria as of 31 May for the period 1980 - 2012.

At Dartmouth Reservoir, the storage volume increased over the last week by 40 GL to 3,270 GL (85% capacity). High inflows are expected at Dartmouth over the coming week however the storage is expected to increase by another 1% during this period. The chance of Dartmouth spilling this winter/spring has now increased to about 50%, which is relatively high given that Dartmouth has only spilled 6 times since it was completed in 1979 (with no spill since 1996). The release, measured at Colemans remains at 200 ML/day.

At Hume Reservoir, the storage increased by 34 GL to 2,747 GL (91% capacity). Release remained at the minimum value of 600 ML/day. However with inflows now increasing, the release at Hume is expected to be increased to about 5,000 ML/day in the coming days to manage airspace heading into winter. MDBA will review short and long-term rainfall outlooks on a daily basis throughout the coming months in order to provide as much airspace for flood mitigation as practicable given Hume's primary role as a water conservation storage. Downstream communities are reminded that with the storage near full, heavy rainfall would result in significant flooding, and that the operation of Hume Dam cannot always provide the level of protection achieved in recent years when the level was well down prior to major inflows. June 2012 is FloodSafe Month and for more information on how you can be better prepared see <http://www.ses.nsw.gov.au/community-safety/floodsafe/>.



Downstream at Yarrowonga, the pool level in Lake Mulwala is currently 124.71 m AHD. The release at Yarrowonga Weir has decreased with the recession of inflows from the previous week's rain and is currently 4,100 ML/day. The release is expected to be increased during the week as inflows once again rise following the latest rain.

On the Edward-Wakool System, flow through the Edward and Gulpa offtakes remains at low levels whilst works continue at Stevens Weir. Downstream at Toonalook, the flow has decreased to 370 ML/day and should continue receding towards 300 ML/day this week. The flow at Stevens Weir fell slightly during the week to around 500 ML/day and will likely continue falling next week. Downstream on the lower Edward and Wakool Rivers, flows are now receding at all gauges.

On the Goulburn River, the flow at McCoys peaked at 3,200 ML/day on 1 June but has since receded to the current flow of 2,000 ML/day. The flow should recede further in the coming days. At Torrumbarry Weir, the flow increased to a peak of 7,900 ML/day but is now receding as inflows from the Goulburn River decrease. The flow should decrease to below 7,000 ML/day later this week.

On the Murrumbidgee River, the flow at Balranald continues to recede, decreasing from 10,000 to 8,700 ML/day this week. At Euston, the recession continues and the flow is now 17,500 ML/day. The flow should decrease more slowly over the coming days before higher flows in transit from Torrumbarry temporarily halt the recession later in the week.

On the Darling River, the flow at Wilcannia has remained quite steady at around 3,400 ML/day this week and with extended base flows continuing in the upper Darling tributaries, is expected to continue flowing steadily through the winter months even without any significant rain in the upper catchments. At the Menindee Lakes, inflow has averaged around 4,200 ML/day and the total storage volume decreased by 12 GL to 1,918 GL (111% capacity). Release from Menindee Lakes (measured at Weir 32) has been decreased to 4,000 ML/day. The release will continue to be reduced by around 250 ML/day each day over the coming week. Downstream on the lower Darling River, the flow at Burtundy is now falling away more quickly, with the flow decreasing from 17,800 to 11,400 ML/day over the last 7 days.

At Wentworth, the Murray receded to 34,400 ML/day and will decrease to below 30,000 ML/day this week. At Lake Victoria, outflow from the storage has been decreased in order to commence increasing the stored volume, which increased by 7 GL during the week to 365 GL (55%).

The flow to South Australia decreased to 30,000 ML/day, and will continue receding during the week ahead. Downstream at Lock 1, the flow has fallen away as expected and is now at 42,600 ML/day. At the Lower Lakes, the 5 day average level for Lake Alexandrina decreased to 0.72 m AHD (3 cm below full supply). Salinity levels in the Lower Lakes continue to fall slowly with on-going inflow from the Murray. Recent heavy local rainfall and water exchange between Lake Alexandrina and Lake Albert during high lake levels has also influenced salinity, with recent salinity measurements in Lake Albert decreasing to some of the lowest observed since early 2008.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 06 Jun 2012

MDBA Storages	Full Supply Level	Full Supply Volume (GL)	Current Storage Level	Current Storage		Dead Storage (GL)	Active Storage (GL)	Change in Total Storage for the Week (GL)
	(m AHD)		(m AHD)	(GL)	%			
Dartmouth Reservoir	486.00	3 856	476.61	3 270	85%	71	3 199	+40
Hume Reservoir	192.00	3 005	190.68	2 747	91%	23	2 724	+34
Lake Victoria	27.00	677	24.19	365	54%	100	265	+7
Menindee Lakes		1 731*		1 918	111%	(480 #)	1 438	-12
Total		9 269		8 300	90%	--	7 626	+69
Total Active MDBA Storage							89% ^	

Major State Storages

Burrinjuck Reservoir	1 026	970	95%	3	967	+16
Blowering Reservoir	1 631	1 534	94%	24	1 510	-2
Eildon Reservoir	3 334	2 836	85%	100	2 736	+22

* Menindee surcharge capacity – 2050 GL

** All Data is rounded to nearest GL **

NSW takes control of Menindee Lakes when storage falls below 480 GL, and control reverts to MDBA when storage next reaches 640 GL

^ % of total active MDBA storage

Snowy Mountains Scheme

Snowy diversions for week ending 05 Jun 2012

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2012
Lake Eucumbene - Total	2 485	n/a	Snowy-Murray	+10	67
Snowy-Murray Component	889	n/a	Tooma-Tumut	+5	20
Target Storage	1 240		Net Diversion	5	47
			Murray 1 Release	+13	87

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2011	Victoria	This Week	From 1 July 2011
Murray Irrig. Ltd (Net)	-0.3	1058	Yarrowonga Main Channel (net)	-0.3	203
Wakool Sys Allowance	0.4	32	Torrumbarry System + Nyah (net)	0	547
Western Murray Irrigation	0.2	22	Sunraysia Pumped Districts	0.8	91
Licensed Pumps	n/a	194	Licensed pumps - GMW (Nyah+u/s)	6.3	63
Lower Darling	n/a	304	Licensed pumps - LMW	0.8	266
TOTAL	0.3	1610	TOTAL	7.6	1170

* Figures derived from estimates and monthly data. Please note that not all data may have been available at the time of creating this report.

** All data above is rounded to nearest 100 ML for weekly data and nearest GL for cumulative data**

Flow to South Australia (GL)

* Flow to SA will be greater than entitlement for April due to Unregulated Flows and Additional Dilution Flow.

Entitlement this month	90.0 *	
Flow this week	255.5	(36 500 ML/day)
Flow so far this month	215.3	
Flow last month	1,523.0	

Salinity (EC) (microSiemens/cm at 25° C)

	Current	Average over the last week	Average since 1 August 2011
Swan Hill	70	110	130
Euston	170	160	140
Red Cliffs	170	160	160
Merbein	120	120	140
Burtundy (Darling)	310	320	340
Lock 9	210	210	190
Lake Victoria	270	270	220
Berri	270	290	250
Waikerie	-	-	-
Morgan	300	310	280
Mannum	320	300	290
Murray Bridge	390	370	300
Milang (Lake Alex.)	530	550	560
Poltalloch (Lake Alex.)	300	300	350
Meningie (Lake Alb.)	4 410	4 300	4 900
Goolwa Barrages	390	380	1 380



River Levels and Flows

Week ending Wednesday 06 Jun 2012

River Murray	Minor Flood Stage (m)	Gauge Height		Flow (ML/day)	Trend	Average Flow this Week (ML/day)	Average Flow last Week (ML/day)
		local (m)	(m AHD)				
Khancoban	-	-	-	5 420	F	2 380	3 220
Jingellic	4.0	2.50	209.02	12 000	R	5 410	5 650
Tallandoon (Mitta Mitta River)	4.2	1.71	218.60	1 120	R	770	820
Heywoods	5.5	1.30	154.93	600	S	600	600
Doctors Point	5.5	1.61	150.08	1 860	R	1 860	2 090
Albury	4.3	0.73	148.17	-	-	-	-
Corowa	3.8	0.74	126.76	2 230	S	2 310	2 430
Yarrowonga Weir (d/s)	6.4	0.82	115.86	4 110	S	4 630	3 970
Tocumwal	6.4	1.46	105.30	4 650	F	5 090	4 190
Torrumbarry Weir (d/s)	7.3	2.45	81.00	7 720	F	6 930	5 700
Swan Hill	4.5	1.27	64.19	5 960	R	5 440	6 330
Wakool Junction	8.8	3.49	52.61	9 730	F	10 510	12 580
Euston Weir (d/s)	8.8	2.89	44.73	17 460	F	18 520	22 180
Mildura Weir (d/s)	-	-	-	19 250	F	20 610	24 010
Wentworth Weir (d/s)	7.3	4.80	29.56	33 400	F	38 030	44 630
Rufus Junction	-	6.03	22.96	30 050	F	36 490	42 100
Blanchetown (Lock 1 d/s)	-	2.86	-	42 600	F	44 860	51 670
Tributaries							
Kiewa at Bandiana	2.7	1.72	154.95	1 630	R	1 400	1 530
Ovens at Wangaratta	11.9	8.58	146.26	2 110	R	1 880	2 060
Goulburn at McCoys Bridge	9.0	2.08	93.50	1 960	F	2 560	1 530
Edward at Stevens Weir (d/s)	-	0.76	80.53	510	F	560	1 170
Edward at Liewah	-	2.73	58.11	2 190	F	2 510	2 540
Wakool at Stoney Crossing	-	1.60	55.09	770	F	870	890
Murrumbidgee at Balranald	5.0	5.27	61.23	8 680	F	9 140	10 900
Barwon at Mungindi	-	3.23	-	100	F	100	90
Darling at Bourke	-	4.42	-	2 490	S	2 340	2 610
Darling at Burtundy Rocks	-	5.49	-	11 430	F	14 760	18 560

Natural Inflow to Hume	11 740	7 780
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(i.e. Pre Dartmouth & Snowy Mountains scheme)

Weirs and Locks Pool levels above or below Full Supply Level (FSL)

Murray	FSL (m AHD)	u/s	d/s		FSL (m AHD)	u/s	d/s
Yarrowonga	124.90	-0.19	-	No. 7 Rufus River	22.10	+0.95	+3.76
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	-0.01	+2.13
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.01	+1.98
No. 11 Mildura	34.40	-0.02	+0.91	No. 4 Bookpurnong	13.20	+0.13	+3.15
No. 10 Wentworth	30.80	+0.03	+2.16	No. 3 Overland Corner	9.80	+0.04	+2.74
No. 9 Kulnine	27.40	+0.04	+1.19	No. 2 Waikerie	6.10	+0.44	+2.91
No. 8 Wangumma	24.60	+0.02	+2.04	No. 1 Blanchetown	3.20	+0.12	+2.11

Lower Lakes FSL = 0.75 m AHD

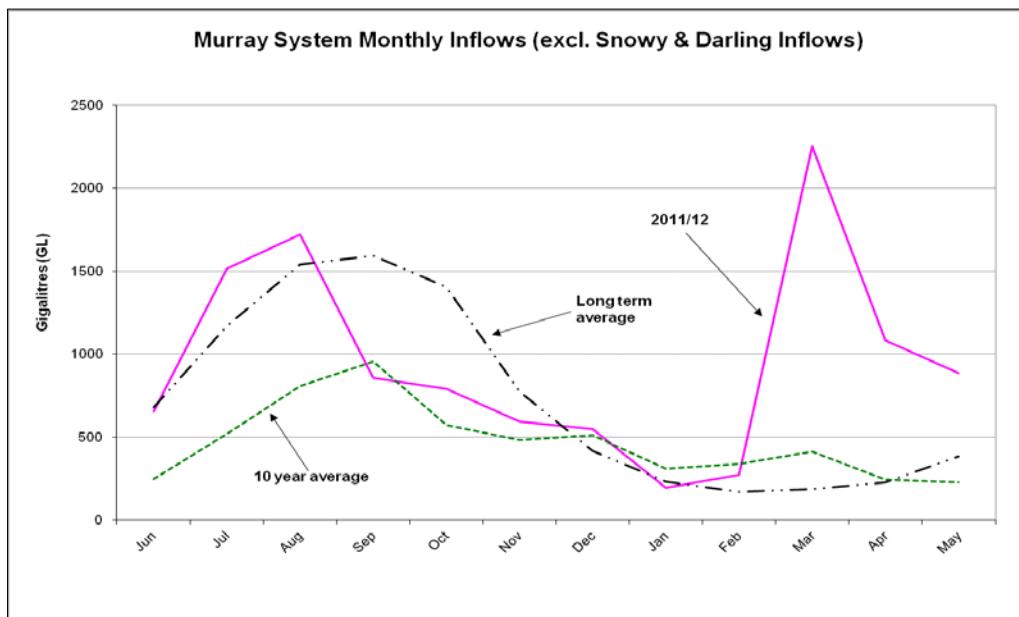
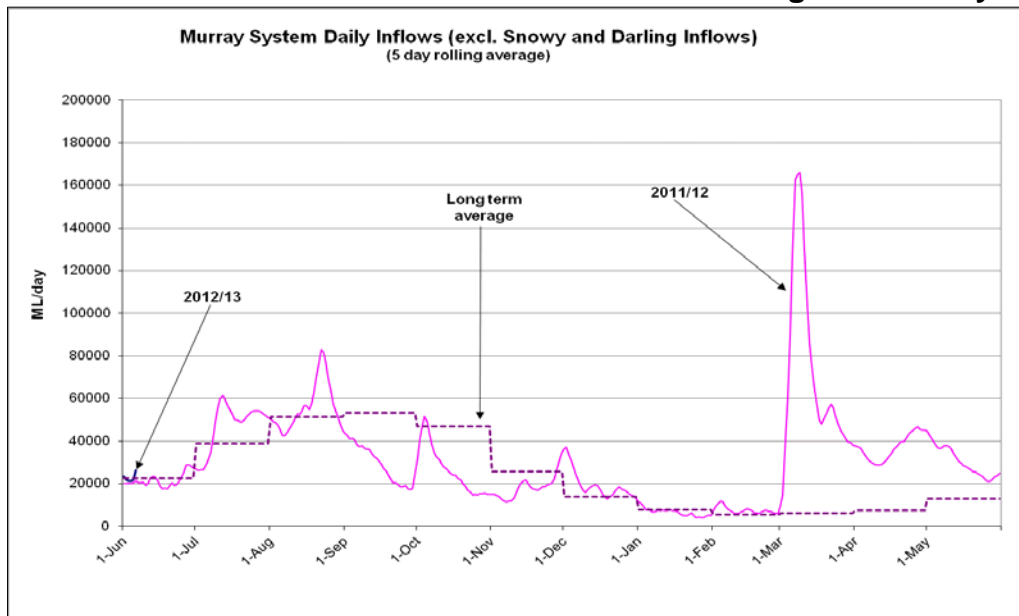
Lake Alexandrina average level for the past 5 days (m AHD)	0.72
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Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.71	50	-	Open
Mundoo	26 openings	0.72	All closed	-	-
Boundary Creek	6 openings	-	1	-	-
Ewe Island	111 gates	-	105	-	-
Tauwichee	322 gates	0.72	165	Open	Open

AHD = Level relative to Australian Height Datum, i.e. height above sea level



State Allocations (as at 06 Jun 2012)

NSW - Murray Valley

High security	100%
General security	100%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	100%
General security	100%

Victorian - Goulburn Valley

High reliability	100%
Low reliability	0%

NSW - Lower Darling

High security	100%
General security	100%

South Australia - Murray Valley

High security	100%
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NSW : <http://www.water.nsw.gov.au/About-us/Media-releases/media/default.aspx>
 VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>
 SA : <http://www.waterforgood.sa.gov.au/category/news/>