



# RIVER MURRAY WEEKLY REPORT

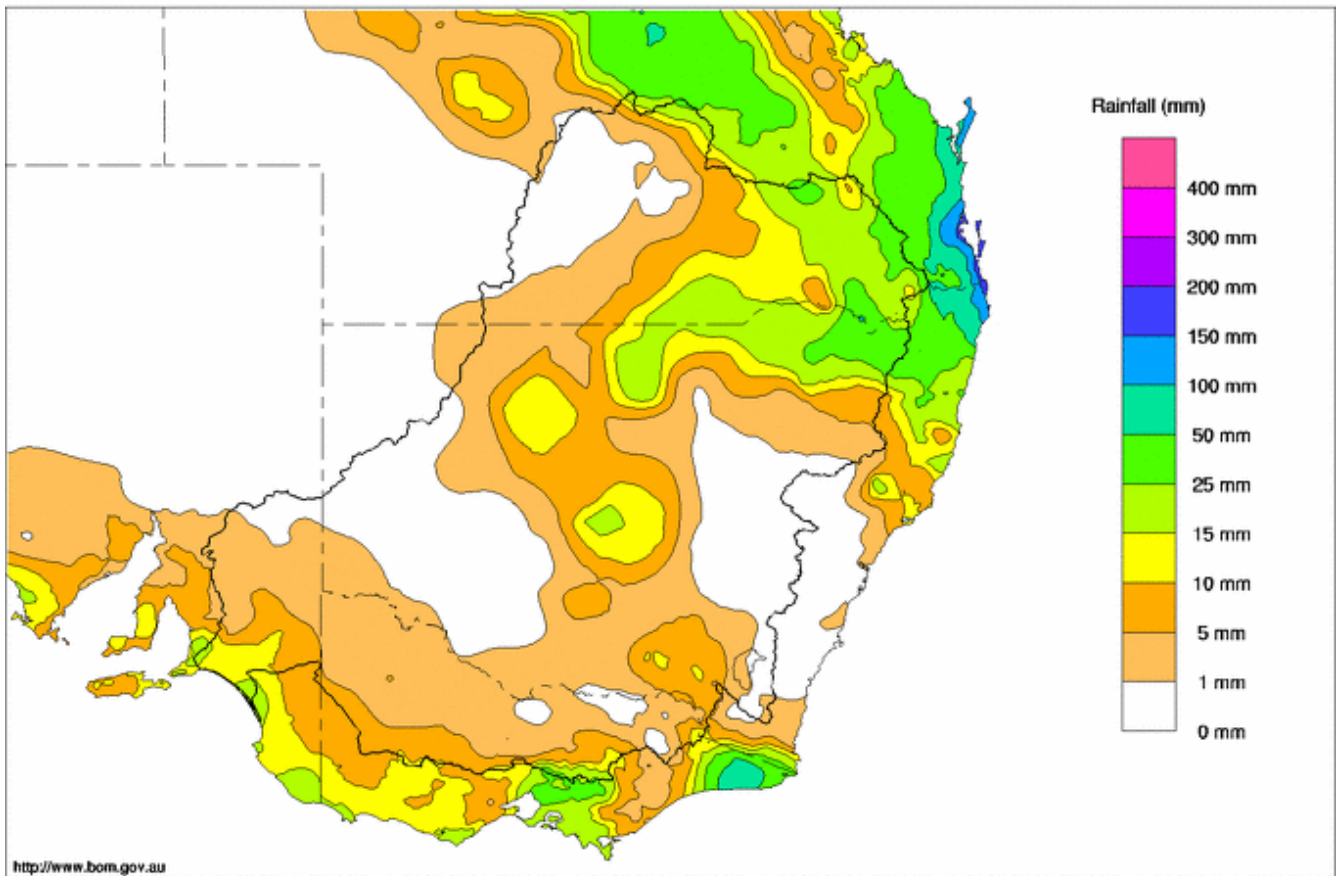
FOR THE WEEK ENDING WEDNESDAY, 02 MAY 2012

Trim Ref: D12/17102

## Rainfall and Inflows

It was a fairly dry week across the Murray-Darling Basin this week with the only notable rainfall recorded in the southern and south-east ranges, parts of Central NSW and across catchments in the north-east where totals of between 25 and 50 mm resulted from a trough that moved through eastern Queensland (Map 1). Highest totals included 46 mm at Glenlyon Dam and 41 mm at Pratten in the Queensland Darling Downs, 29 mm at Glen Innes airport and 25 mm at Gravesend in northern NSW, and 23 mm at Mt Buller and 18 mm at Woods Point in Victoria's upper Goulburn catchment.

Murray Darling Rainfall Totals (mm) Week Ending 2nd May 2012  
Product of the National Climate Centre



<http://www.bom.gov.au>  
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Map 1- Murray-Darling Basin rainfall for the week ending 2nd May 2012 (Source: Bureau of Meteorology).

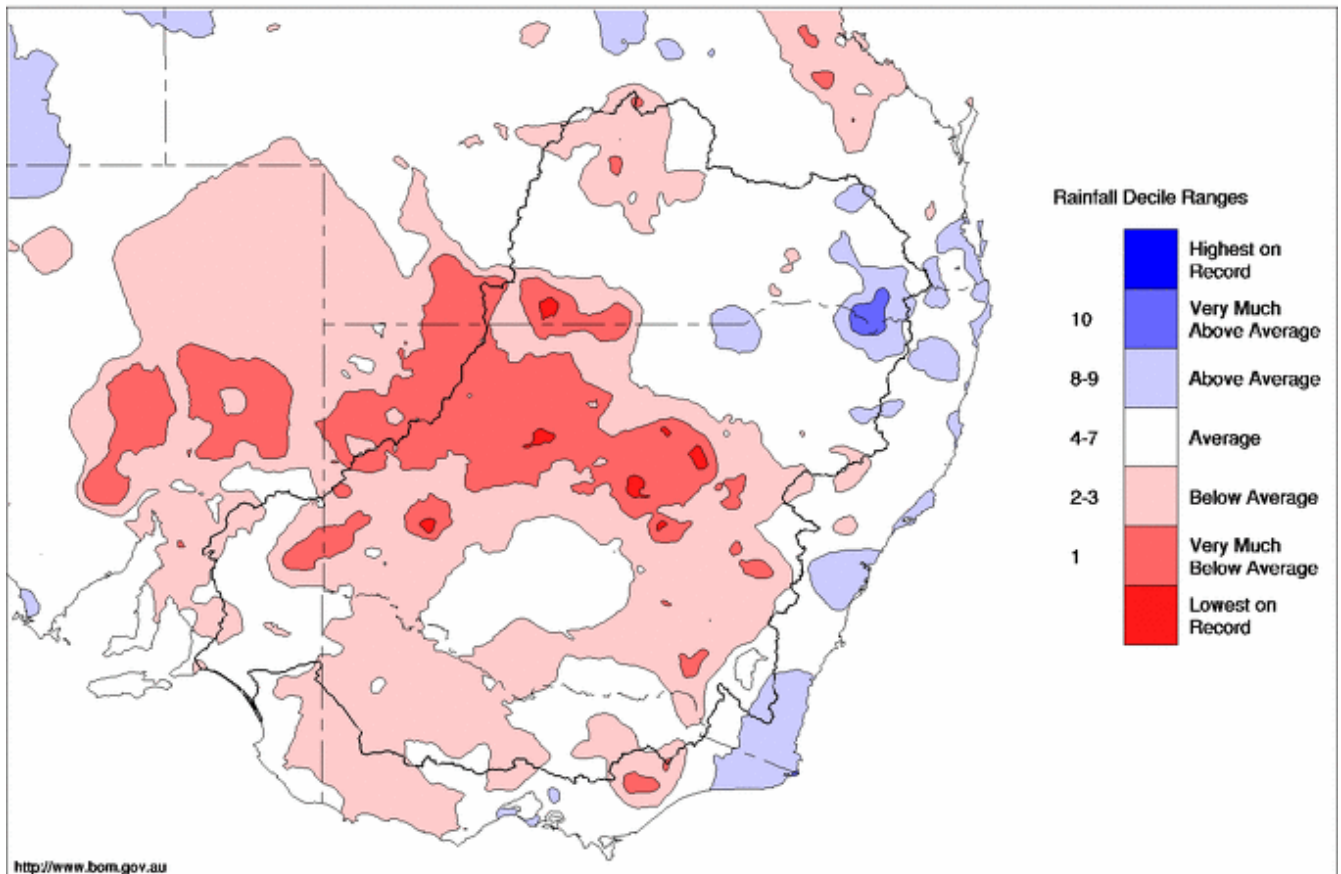
Stream flows in the upper Murray tributaries receded slightly from last week. On the Mitta Mitta River, the flow at Hinnomunjie decreased from 700 to 500 ML/day. On the upper River Murray, the flow at Biggara receded from 1,400 to 1,200 ML/day after reaching a small peak of 1,600 ML/day early in the week. On the Ovens River the flow at Wangaratta also decreased. It receded from 1,800 to 1,400 ML/day by 1 May, although this has since been followed by a slight rise in flow following the commencement by Goulburn-Murray Water of higher releases from Lake Buffalo, which are expected to continue over the coming week.



## April 2012 Summary

Following the extremely wet weather experienced across the Murray-Darling Basin during March, conditions during April were a considerable contrast. Below average rainfall was recorded over wide areas of the region and according to the Bureau of Meteorology it was the 24th driest April out of 113 years of records for the Basin as a whole (14.1 mm compared with the average of 38.1 mm). This represents the largest negative deviation from the average for any month since January 2009. Across most of NSW, rainfall was below average or very much below average, with areas in the north-west of the state recording 'lowest on record' rainfall – several stations in these areas recorded practically no rain at all during the month. Much of western Victoria recorded below average rainfall, while in the northern and north-eastern parts of the Basin and along most of the eastern ranges rainfall was mostly closer to average (Map 2).

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



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

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Issued: 30/04/2012

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

Despite the change to drier weather, River Murray system inflows (excluding Snowy and Darling) remained very high during April at around 1,100 GL (compared to the long-term April average of around 260 GL). This is the 2nd highest April system inflow ever recorded - slightly more than April 1939, although well below the April 1956 record when inflows topped 3,000 GL. Including inflows from the Darling River, the total was about 2,300 GL for April and compares with the April 1956 record total of about 4,400 GL



The apparent contradiction during April between monthly inflow and rainfall clearly demonstrates the lag that results from the long travel times for flows along many rivers within the Murray-Darling Basin. Floodwaters generated by very heavy rains during late February and early March are continuing to gradually recede, but during April these floodwaters have resulted in large volumes of water passing along tributaries such as the Murrumbidgee, Darling and Goulburn Rivers and into the River Murray.

The volume stored in the major southern Basin storages is now at very high levels for this time of the year. As of 30 April 2012, the combined volumes in Burrinjuck, Blowering, Eildon, Hume, Dartmouth, Lake Victoria and Menindee Lakes totalled about 13,400 GL. Based on modelling at the current level of development for the period from 1895 to 2009, this year's end of April storage would only have been exceeded once in 114 years – in 1956.

## River Operations

MDBA active storage increased by 136 GL during the week and is currently 7,415 GL (86% capacity). At Dartmouth Reservoir, the storage volume increased by 4 GL and is now 3,200 GL (83% capacity). The release from Dartmouth, measured at Colemans, remained at 200 ML/day. At Hume Reservoir, the storage volume decreased by 9 GL during the week and is now 2,609 GL (87% capacity). The release from Hume Dam increased slightly during the week and was then varied by small amounts in order to target a flow at Doctors Point that ranged from around 8,000 to 9,200 ML/day. The release over the coming days will depend on flow and demand responses to any rainfall.

At Yarrawonga Weir, the pool level is currently 124.68 m AHD, or 22 cm below full supply. Diversions through the Mulwala Canal and Yarrawonga Main channel have remained steady during the week averaging around 3,400 ML/day at Mulwala Canal and 150 ML/day at Yarrawonga Main Channel. The release from Yarrawonga Weir has been reduced slightly and is now at 7,000 ML/day. Additional in-channel dilution flow - being maintained using Commonwealth environmental water to assist in managing low oxygen water downstream - is expected to continue for another week.

On the Edward-Wakool system, diversion into the Edward River has remained steady with around 1,400 ML/day flowing through the Edward River offtake and 300 ML/day through the Gulpa Creek Offtake. Additional inflow from Mulwala Canal entering via the Edward Escape is now being reduced. This will decrease the flow at Stevens Weir over the coming week where the current release is 2,300 ML/day. Downstream on the Wakool River the flow at Stoney Crossing has receded to 1,900 ML/day and the flow at Kyalite is now estimated to be around 7,300 ML/day.

On the Goulburn River, the flow at McCoys Bridge reached a peak of 6,100 ML/day during the week and is now flowing at 5,100 ML/day. Goulburn-Murray Water has advised that the flow is expected to rise again to above 6,000 ML/day over the coming week. At Torrumbarry Weir, diversion into the National Channel was held at 1,500 ML/day for much of the week but is expected to increase to 2,000 ML/day during this week. The flow downstream of Torrumbarry is currently 10,700 ML/day and should decrease below 10,000 ML/day once diversions at National Channel are increased.

On the Murrumbidgee River, the flow at Balranald began to fall away during the week following a broad peak that held for about a week at a flow close to 30,000 ML/day. The river is now flowing at 24,000 ML/day and the river has dropped below the minor flood level.

Downstream at Euston, the Murray rose slightly higher to reach a peak of 37,900 ML/day on 1 May – slightly above the peak observed on 8 April. The flow should recede slowly over the coming days and may remain above 30,000 ML/day until the middle of this month.

On the Darling River, inflows to the Menindee Lakes remain high but have now started decreasing as flows in the Darling River and the Talyawalka Creek recede upstream. The average inflow over the past week was 49,000 ML/day - down from 60,000 ML/day during the previous week. The combined volume in the lakes increased by a further 162 GL to reach 1,926 GL, or 111% capacity. Release from the Lakes (measured at Weir 32) has been held this week at around 23,000 ML/day, and is expected





to be held steady for several more days as inflows remain high to ensure the lakes remain below the full surcharge level. Current forecasts indicate the lakes should level out at around 2,000 GL, which is 50 GL below the full surcharge capacity.

Downstream on the lower Darling River, the flow at Burtundy has reached 20,000 ML/day and continues to rise very slowly towards a peak expected later in the month. For further information on the flood operations at Menindee Lakes, please refer to the NSW Office of Water website ([www.water.nsw.gov.au](http://www.water.nsw.gov.au)) with details available at

<http://www.water.nsw.gov.au/Water-management/Water-availability/Flood-management/>.

At Wentworth, the flow increased from 54,600 to 57,800 ML/day and the upstream pool is now 22 cm above the normal operating level. The flow is now expected to peak again during the coming week but should remain just below 60,000 ML/day. At Lake Victoria, the storage volume decreased by 21 GL and is currently 354 GL (52% capacity), and the flow to South Australia has averaged 55,800 ML/day.

At the Lower Lakes, all Barrage gates at Goolwa and Mundoo were closed for two days to minimise saline incursions during a large swell event over the weekend. This resulted in a rise in water level of 19 cm at the Goolwa Barrage gauge but a much smaller rise in the average level across all Lower Lakes gauges. The level has since declined slightly after the gates were re-opened. At Tauwitche and Ewe Island Barrages, 137 gates remain open to enable the passage of the current high inflows that continue at the Lower Lakes.

The 5 day average level for the lakes is 0.76 m AHD or 1 cm above full supply. Renewed high tides with levels up to 1.46 m are forecast for the coming week. To prevent short periods of reverse flow, the gates at Goolwa and Mundoo will be closed for much of the coming week. High water levels in the Lower Lakes are therefore expected by week's end. These operations are being adaptively managed, for although tide heights can be reasonably well predicted in advance, the impact of winds and swells on tidal surge are more difficult to predict.

**For media inquiries contact the Media Officer on 02 6279 0141**

DAVID DREVERMAN

Executive Director, River Management



**Water in Storage**

**Week ending Wednesday 02 May 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	475.42	3 200	83%	71	3 129	+4
Hume Reservoir	192.00	3 005	189.94	2 609	87%	23	2 586	-9
Lake Victoria	27.00	677	24.10	354	52%	100	254	-21
Menindee Lakes		1 731*		1 926	111%	(480 #)	1 446	+162
<b>Total</b>		<b>9 269</b>		<b>8 089</b>	<b>87%</b>	- -	<b>7 415</b>	<b>+136</b>
Total Active MDBA Storage							86% ^	

**Major State Storages**

Burrinjuck Reservoir	1 026	970	95%	3	967	-0
Blowering Reservoir	1 631	1 535	94%	24	1 511	-20
Eildon Reservoir	3 334	2 828	85%	100	2 728	-51

\* 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 01 May 2012

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2012
Lake Eucumbene - Total	2 507	n/a	Snowy-Murray	+6	2
Snowy-Murray Component	911	n/a	Tooma-Tumut	+4	1
Target Storage	1 290		Net Diversion	2	1
			Murray 1 Release	+12	4

**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)	11.8	1035	Yarrowonga Main Channel (net)	-1.2	196
Wakool Sys Allowance	-0.3	22	Torrumbarry System + Nyah (net)	7.7	516
Western Murray Irrigation	0.3	21	Sunraysia Pumped Districts	1.1	88
Licensed Pumps	2.4	181	Licensed pumps - GMW (Nyah+u/s)	0	52
Lower Darling	7.1	273	Licensed pumps - LMW	1.2	260
<b>TOTAL</b>	<b>21.3</b>	<b>1532</b>	<b>TOTAL</b>	<b>8.8</b>	<b>1112</b>

\* 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	93.0 *	
Flow this week	111.1	(15 900 ML/day)
Flow so far this month	111.1	
Flow last month	1,778.8	

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

	Current	Average over the last week	Average since 1 August 2011
Swan Hill	140	160	130
Euston	190	190	140
Red Cliffs	190	180	160
Merbein	160	160	140
Burtundy (Darling)	290	290	350
Lock 9	220	220	190
Lake Victoria	250	290	220
Berri	260	250	250
Waikerie	-	-	-
Morgan	290	270	280
Mannum	220	150	410
Murray Bridge	320	310	350
Milang (Lake Alex.)	660	680	550
Poltalloch (Lake Alex.)	280	280	360
Meningie (Lake Alb.)	4 710	4 710	5 020
Goolwa Barrages	570	870	1 500



**River Levels and Flows**

**Week ending Wednesday 02 May 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	-	-	-	4 120	F	2 600	2 090
Jingellic	4.0	1.81	208.33	5 360	R	4 680	4 810
Tallandoon ( Mitta Mitta River )	4.2	1.52	218.41	700	R	710	820
Heywoods	5.5	2.33	155.96	6 860	F	7 090	6 900
Doctors Point	5.5	2.46	150.93	8 590	R	8 700	8 150
Albury	4.3	1.42	148.86	-	-	-	-
Corowa	3.8	2.16	128.18	8 400	F	8 110	9 390
Yarrowonga Weir (d/s)	6.4	1.33	116.37	7 510	F	7 570	7 560
Tocumwal	6.4	1.97	105.81	7 620	S	7 630	7 680
Torrumbarry Weir (d/s)	7.3	3.30	81.85	10 690	S	10 440	8 750
Swan Hill	4.5	1.79	64.71	8 660	R	8 130	7 280
Wakool Junction	8.8	5.44	54.56	19 350	F	20 000	21 080
Euston Weir (d/s)	8.8	5.94	47.78	37 780	S	37 640	34 910
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	6.08	30.84	57 800	R	56 600	53 770
Rufus Junction	-	7.13	24.06	55 650	S	55 780	57 770
Blanchetown (Lock 1 d/s)	-	3.30	-	53 100	S	52 770	50 140
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	1.60	154.83	1 420	R	1 400	1 220
Ovens at Wangaratta	11.9	8.39	146.07	1 630	R	1 570	1 620
Goulburn at McCoys Bridge	9.0	3.69	95.11	5 100	F	5 530	4 330
Edward at Stevens Weir (d/s)	-	2.18	81.95	2 270	F	2 390	2 500
Edward at Liewah	-	4.09	59.47	4 610	F	5 610	7 520
Wakool at Stoney Crossing	-	2.14	55.63	1 900	F	2 530	3 930
Murrumbidgee at Balranald	5.0	6.64	62.60	24 020	F	27 030	28 410
Barwon at Mungindi	-	3.20	-	70	S	60	140
Darling at Bourke	-	4.72	-	5 300	F	6 270	8 570
Darling at Burtundy Rocks	-	7.42	-	19 950	S	19 840	19 610

Natural Inflow to Hume	6 040	6 410
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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	-0.22	-	No. 7 Rufus River	22.10	+2.04	+4.82
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.09	+3.03
No. 15 Euston	47.60	+0.21	-	No. 5 Renmark	16.30	-0.05	+2.76
No. 11 Mildura	34.40	+0.08	+2.12	No. 4 Bookpurnong	13.20	+0.67	+3.99
No. 10 Wentworth	30.80	+0.22	+3.44	No. 3 Overland Corner	9.80	+0.18	+3.54
No. 9 Kulnine	27.40	+0.21	+2.94	No. 2 Waikerie	6.10	+0.94	+3.64
No. 8 Wangumma	24.60	+1.21	+3.63	No. 1 Blanchetown	3.20	+0.30	+2.55

**Lower Lakes FSL = 0.75 m AHD**

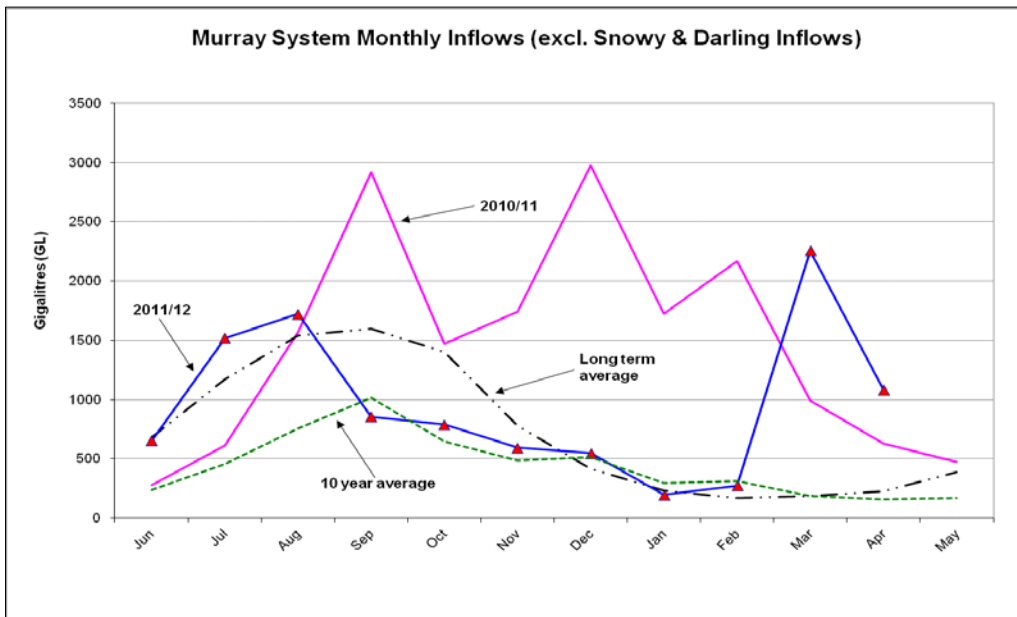
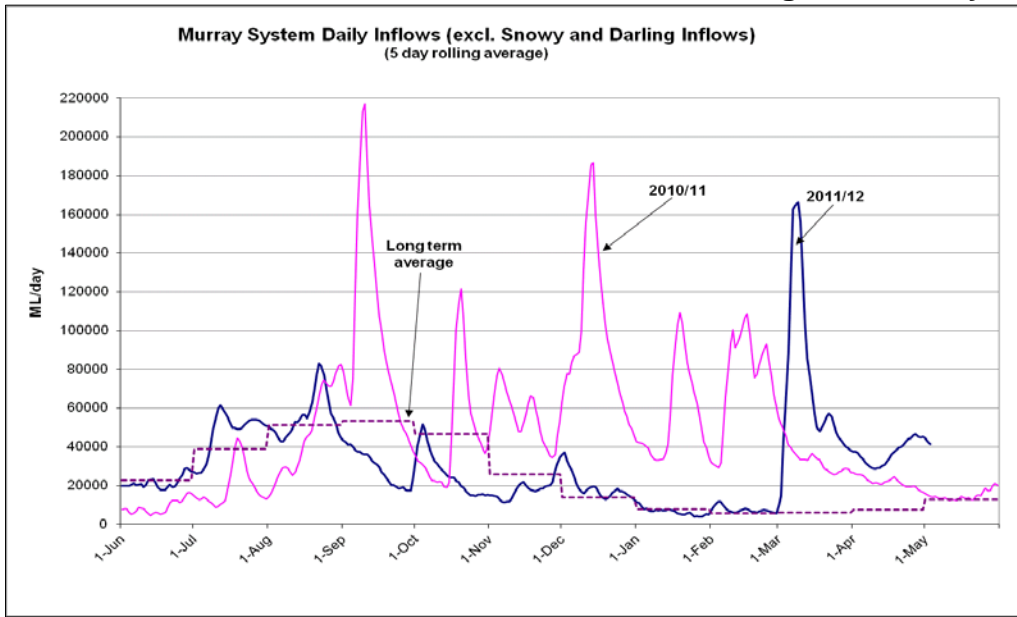
Lake Alexandrina average level for the past 5 days (m AHD)	0.76
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**Barrages**

**Fishways at Barrages**

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.64	55	-	Open
Mundoo	26 openings	0.64	6	-	-
Boundary Creek	6 openings	-	1	-	-
Ewe Island	111 gates	-	52	-	-
Tauwichee	322 gates	0.66	85	Open	Open

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



**State Allocations (as at 02 May 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/>