



# RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 07 DECEMBER 2011

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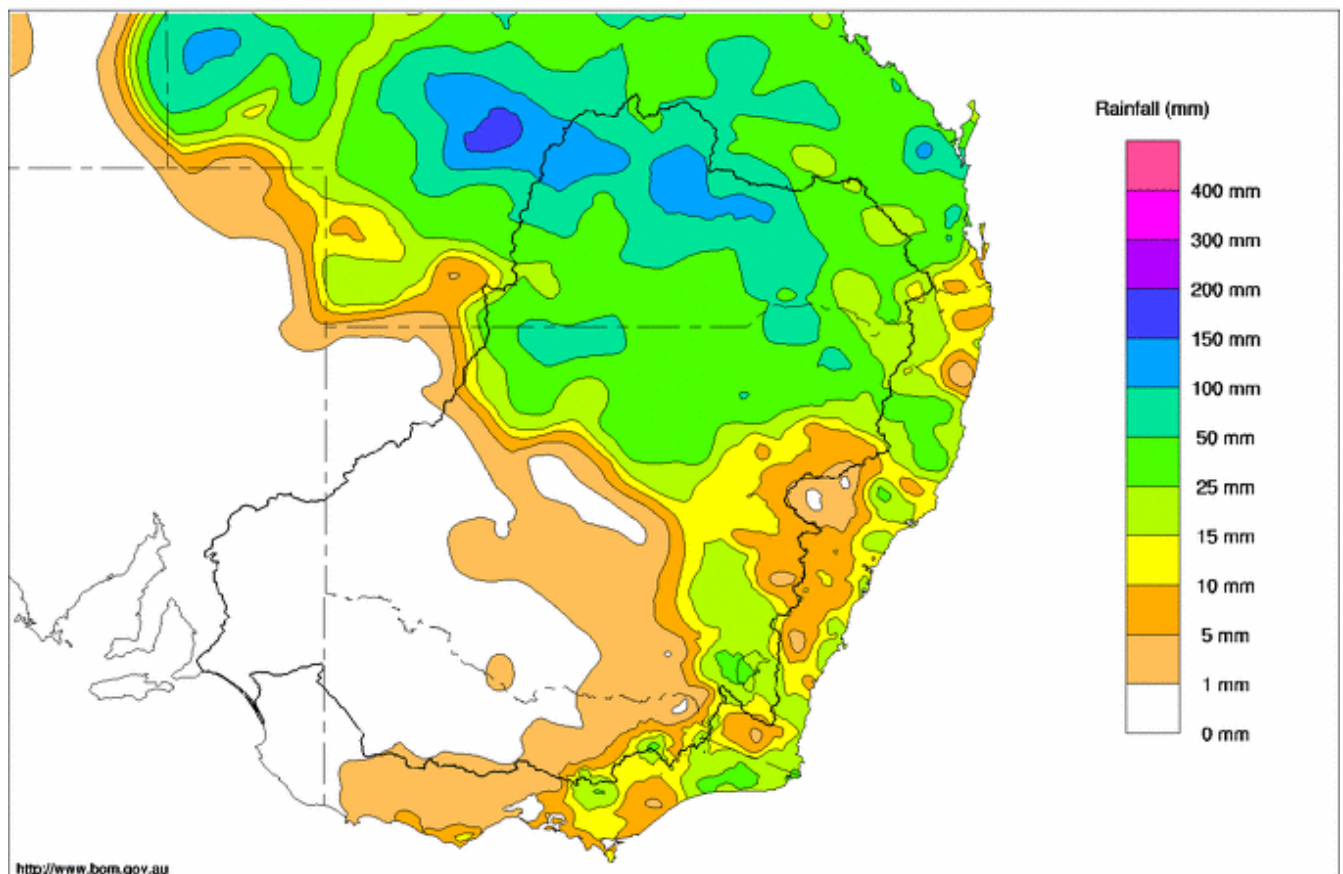
## Rainfall and Inflows

Rain and storms cleared the Murray-Darling Basin early in the week leaving dry and relatively cool conditions through much of the region before a trough intensified over Queensland bringing renewed rainfall to the northern Basin during the last few days (Map 1).

The highest rain totals for the past week were recorded in Queensland with several locations across the upper Paroo, Warrego and Maranoa River catchments receiving totals between 100 and 200 mm. Notable observations in this region include 179 mm at Mungalla, 178 mm at Eulo, 155 mm at Munnaweena, 124 mm at Roma and 120 mm at Mitchell. This rain is causing river levels to rise in several locations and the Bureau of Meteorology has issued flood warnings covering all three rivers mentioned above. For more information regarding flood warnings, see the Bureau of Meteorology website at <http://www.bom.gov.au/>.

Murray Darling Rainfall Totals (mm) Week Ending 7th December 2011

Product of the National Climate Centre



Map 1- Murray-Darling Basin rainfall for the week ending 07 December 2011 (Source: Bureau of Meteorology).

In northern NSW, there was further rain across parts of the Barwon and Gwydir catchments including 113 mm at Enngonia, 99 mm at Krui Plains, 62 mm at Garah, 57 mm at Come by Chance and 47 mm at Inverell. This rain has added additional volume to floodwaters generated by heavy rain during the previous week. These floodwaters continue to move into the Barwon-Darling River with large contributions from the McIntyre, Gwydir and Namoi Rivers. A peak flow on the Barwon River at



Collarenebri of almost 100,000 ML/day was observed on 5 December and a peak is now expected through Walgett over the coming weekend.

In the southern Basin conditions were relatively dry, with rain mostly confined to the south-east ranges including 33 mm at Mt Ginini and 27 mm at Mt Hotham. Stream flows in the upper Murray tributaries have generally receded over the past week following peaks observed after the rain and storms of the previous week. On the River Murray, the flow at Jingellic peaked early in the week at 15,500 ML/day and is now flowing at 7,900 ML/day; while on the Tooma River, the flow at Pinegrove peaked at 8,900 ML/day but is now at 1,300 ML/day. On the Ovens River, the flow at Rocky Point has receded from 3,700 ML/day early in the week to its current flow of 1,900 ML/day.

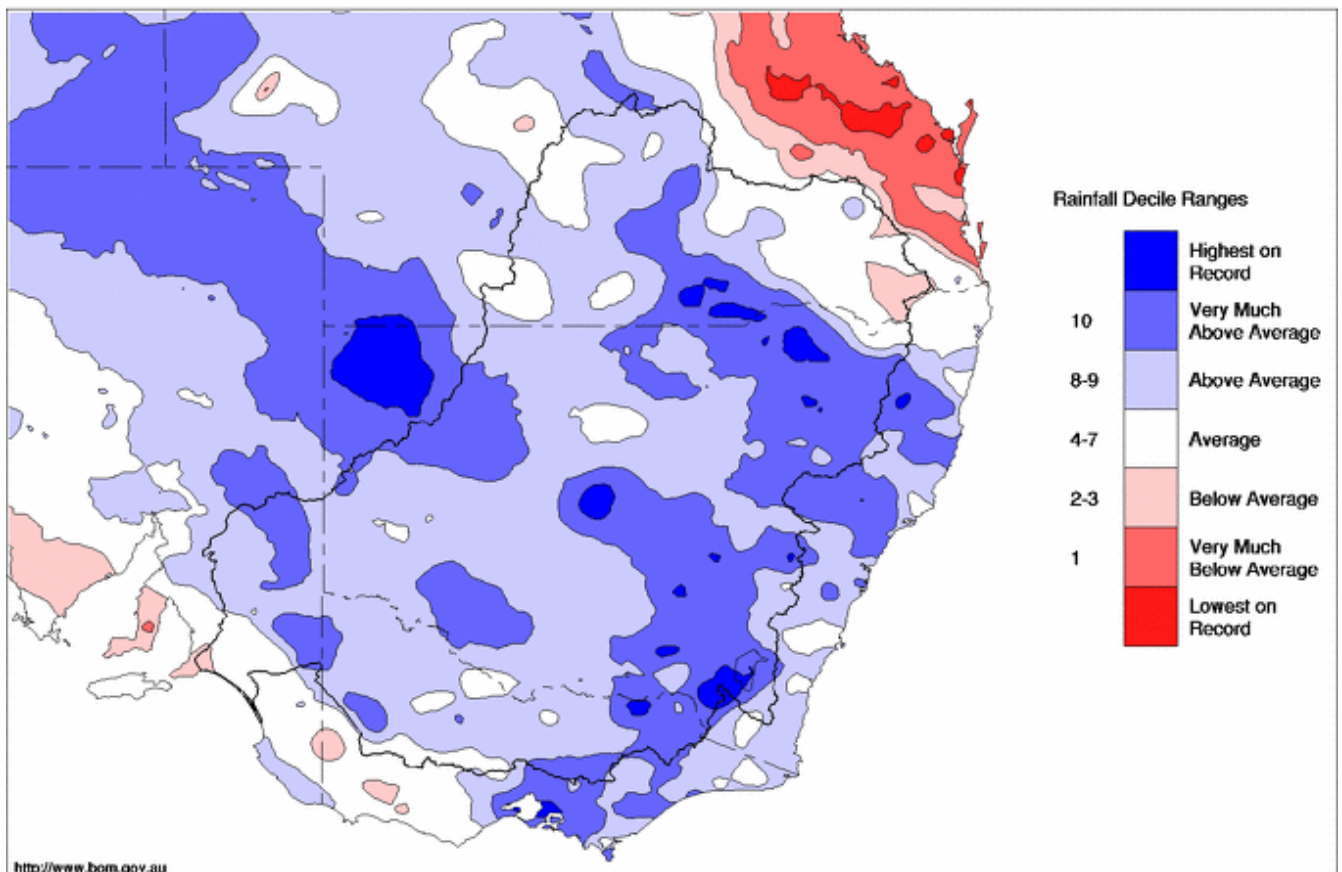
## November 2011 Summary

Rainfall for November averaged 77 mm across the Murray-Darling Basin. This was the 10<sup>th</sup> wettest November in 112 years of record. The majority of the Basin experienced above average rainfall for the month (Map 2). Small isolated areas experienced the highest November totals on record.

Murray system inflows (excluding Snowy releases and Menindee inflows) for November were about 590 GL. This is below the long term average (776 GL) but above the November average for the last 10 years (486 GL).

Murray-Darling Rainfall Deciles November 2011

Distribution Based on Gridded Data  
Product of the National Climate Centre



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Issued: 03/12/2011

Map 2 - Murray-Darling Basin rainfall for November 2011 (Source: Bureau of Meteorology).



## River Operations

MDBA active storage decreased by 16 GL during the week to 7,439 GL (87% capacity). At Dartmouth Reservoir, the total storage increased by 12 GL to 2,925 GL, which is 76% capacity. The release remained steady at the normal minimum of 200 ML/day.

At Hume Reservoir the storage volume rose to 2,748 GL during the week following last week's rain, but has subsequently eased back to its current volume of 2,729 GL (91% capacity), which is a net decrease of 6 GL for the week. The release has been increased slowly during the week (currently 12,400 ML/day) and is expected to be increased further during the coming week to meet downstream demands.

The pool level at Lake Mulwala is currently 124.71 m AHD. Diversions increased at both the Yarrowonga Main Channel and Mulwala Canal during the week, with a combined diversion of about 6,600 ML/day. Diversions of this magnitude are expected to continue over the coming days and the pool may be drawn down slightly below 124.7 m AHD to meet these demands if required. The release through Yarrowonga Weir was decreased steadily throughout the week as inflows from the Ovens River receded, and is currently at 11,000 ML/day. This release is expected to be maintained over the coming week to continue supplying environmental entitlements that are maintaining over-bank flows to the Barmah-Millewa forest.

On the Edward-Wakool system, diversion through the Edward and Gulpa Offtakes was relatively steady during the week. In the Barmah-Millewa forest, regulators that were opened to help pass the high flows downstream of Yarrowonga Weir during the week have now mostly been closed. At Stevens Weir, the release is currently around 3,500 ML/day and is expected to remain around this level over the next few days. Downstream on the Wakool River, the flow at Kyalite eased slightly during the week, but is now beginning to increase as higher flows arrive from upstream.

On the Goulburn River, the release of a second environmental pulse commenced downstream of Goulburn Weir. The flow at McCoys Bridge started to rise again today (Wednesday) and is currently 2,860 ML/day. It is expected to rise toward a brief peak of close to 5,000 ML/day in the coming week.

At Torrumbarry Weir, diversions at the National Channel averaged 2,000 ML/day during the past week. Diversions for the coming week are expected to be around 3,000 ML/day as Goulburn-Murray Water diverts additional water to refill internal storages. Releases from Torrumbarry Weir fell away slowly over the week to 10,700 ML/day.

Further downstream, inflow from the Murrumbidgee River (measured at Balranald) fell away to around 1,000 ML/day during the week but is expected to rise again over the next two weeks to around 9,000 ML/day. At Euston Weir, the flow reduced to 12,700 ML/day and is expected to average around this flow rate for the coming week.

At Menindee Lakes, the total storage decreased by 23 GL, and remains surcharged at 1,793 GL (103% capacity). The release measured at Weir 32, has been increasing gradually during the week and is currently 1,900 ML/day. The release from Menindee Lakes will continue rising over the coming week, and further increases are expected during December and January to pass the floodwaters that are now in transit from the upper Barwon-Darling system.

Storage in Lake Victoria remained relatively steady during the week at around 26.91 m AHD (666 GL which is 98% capacity). Flow to South Australia rose over the week from 9,400 ML/day to 12,400 ML/day as environmental water, originally released from the Goulburn River, increased the flow across the border. The flow to South Australia will increase to around 16,500 ML/day in the coming week.

The average level in the Lower Lakes fell 0.03 m to 0.65 m AHD. The flow out the Barrages averaged around 4,200 ML/day for the week.

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

DAVID DREVERMAN

Executive Director, River Murray



## Water in Storage

Week ending Wednesday 07 Dec 2011

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	470.58	2 925	76%	71	2 854	+12
Hume Reservoir	192.00	3 005	190.58	2 729	91%	23	2 706	-6
Lake Victoria	27.00	677	26.91	666	98%	100	566	+1
Menindee Lakes		1 731*		1 793	104%	(480 #)	1 313	-23
<b>Total</b>		<b>9 269</b>		<b>8113</b>	<b>88%</b>	<b>--</b>	<b>7439</b>	<b>-16</b>
Total Active MDBA Storage							87% ^	

### Major State Storages

Burrinjuck Reservoir	1 026	960	94%	3	957	-2
Blowering Reservoir	1 631	1 527	94%	24	1 503	+16
Eildon Reservoir	3 334	3 259	98%	100	3 159	-9

\* 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 06 Dec 2011

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2011
Lake Eucumbene - Total	2 030	n/a	Snowy-Murray	+0	275
Snowy-Murray Component	680	n/a	Tooma-Tumut	+10	225
Target Storage	1 510		Net Diversion	-10	50
			Murray 1 Release	+6	559

## 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)	33.0	467	Yarrowonga Main Channel (net)	9.8	107
Wakool Sys Allowance	0.0	-2	Torrumbarry System + Nyah (net)	13.6	214
Western Murray Irrigation	0.9	8	Sunraysia Pumped Districts	3.5	34
Licensed Pumps	3.1	77	Licensed pumps - GMW (Nyah+u/s)	0.4	11
Lower Darling	0.4	23	Licensed pumps - LMW	11.2	92
<b>TOTAL</b>	<b>37.4</b>	<b>573</b>	<b>TOTAL</b>	<b>38.5</b>	<b>458</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 December due to Additional Dilution Flow and Unregulated Flows.

Entitlement this month	217.0 *
Flow this week	83.1
Flow so far this month	83.1
Flow last month	296.6

(11 900 ML/day)

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

	Current	Average over the last week	Average since 1 August 2011
Swan Hill	100	110	140
Euston	130	130	130
Red Cliffs	-	-	110
Merbein	160	150	120
Burtundy (Darling)	390	410	370
Lock 9	160	160	130
Lake Victoria	210	220	200
Berri	310	310	210
Waikerie	-	-	-
Morgan	360	350	260
Mannum	390	370	260
Murray Bridge	310	320	240
Milang (Lake Alex.)	380	410	520
Poltalloch (Lake Alex.)	350	350	280
Meningie (Lake Alb.)	5 090	5 160	5 570
Goolwa Barrages	540	940	1 260

## River Levels and Flows

Week ending Wednesday 07 Dec 2011

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	-	-	-	4 000	F	2 530	4 720
Jingellic	4.0	2.09	208.61	7 870	R	9 390	9 890
Tallandoon ( Mitta Mitta River )	4.2	1.66	218.55	1 110	R	1 210	1 310
Heywoods	5.5	2.76	156.39	12 420	S	11 170	12 980
Doctors Point	5.5	2.93	151.40	13 820	F	13 760	16 070
Albury	4.3	1.89	149.33	-	-	-	-
Corowa	3.8	3.12	129.14	14 110	R	13 160	17 810
Yarrowonga Weir (d/s)	6.4	1.79	116.83	11 050	F	13 990	17 480
Tocumwal	6.4	2.57	106.41	11 590	F	15 190	15 670
Torrumbarry Weir (d/s)	7.3	3.26	81.81	10 590	F	11 030	11 440
Swan Hill	4.5	1.92	64.84	9 620	F	10 370	10 240
Wakool Junction	8.8	4.16	53.28	13 730	F	14 120	13 940
Euston Weir (d/s)	8.8	2.39	44.23	12 740	R	14 010	14 020
Mildura Weir (d/s)	-	-	-	14 700	F	15 070	12 970
Wentworth Weir (d/s)	7.3	3.42	28.18	12 850	S	12 960	11 060
Rufus Junction	-	4.31	21.24	11 710	R	11 150	7 880
Blanchetown (Lock 1 d/s)	-	0.88	-	9 550	R	8 550	7 570
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	1.67	154.90	1 530	F	2 530	3 220
Ovens at Wangaratta	11.9	8.81	146.49	2 750	F	3 660	4 920
Goulburn at McCoys Bridge	9.0	2.52	93.94	2 860	R	3 610	5 520
Edward at Stevens Weir (d/s)	-	2.88	82.66	3 580	F	2 940	1 680
Edward at Liewah	-	2.49	57.87	1 890	R	1 900	2 350
Wakool at Stoney Crossing	-	1.68	55.17	990	F	900	800
Murrumbidgee at Balranald	5.0	1.49	57.45	1 040	R	1 280	3 220
Barwon at Mungindi	-	5.87	-	7 220	R	8 290	6 340
Darling at Bourke	-	4.77	-	5 730	R	2 260	1 690
Darling at Burtundy Rocks	-	0.92	-	690	R	510	320

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	15 300	15 660
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## 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	+0.05	+2.00
No. 26 Torrumbarry	86.05	-0.15	-	No. 6 Murtho	19.25	+0.02	+0.55
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.04	+0.48
No. 11 Mildura	34.40	+0.03	+0.51	No. 4 Bookpurnong	13.20	+0.06	+1.36
No. 10 Wentworth	30.80	+0.00	+0.78	No. 3 Overland Corner	9.80	+0.09	+0.57
No. 9 Kulnine	27.40	+0.03	+0.30	No. 2 Waikerie	6.10	+0.05	+0.54
No. 8 Wangumma	24.60	+0.01	+0.51	No. 1 Blanchetown	3.20	+0.03	+0.13

## Lower Lakes FSL = 0.75 m AHD

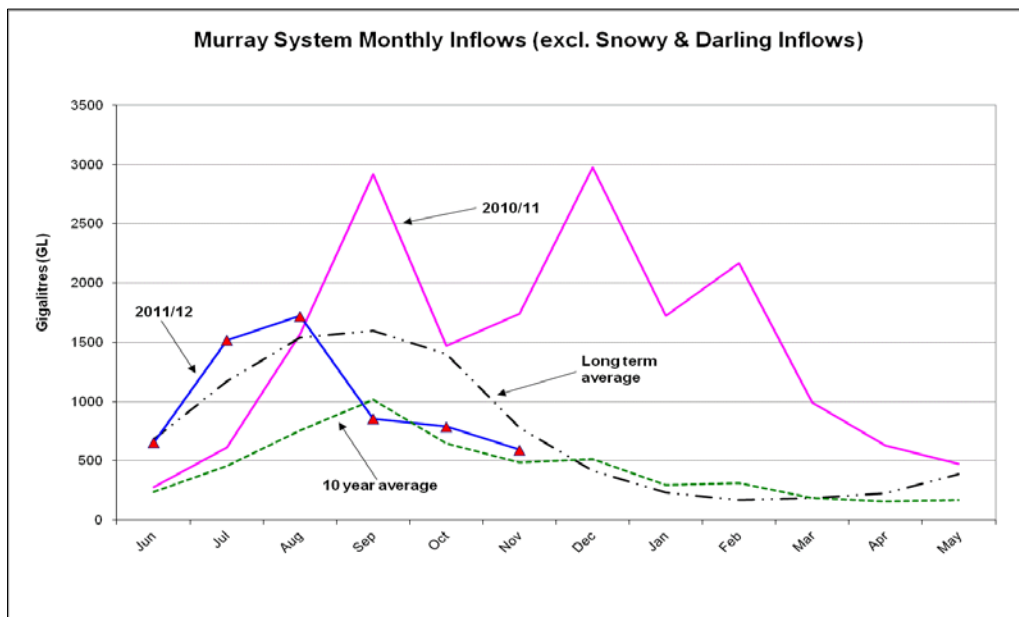
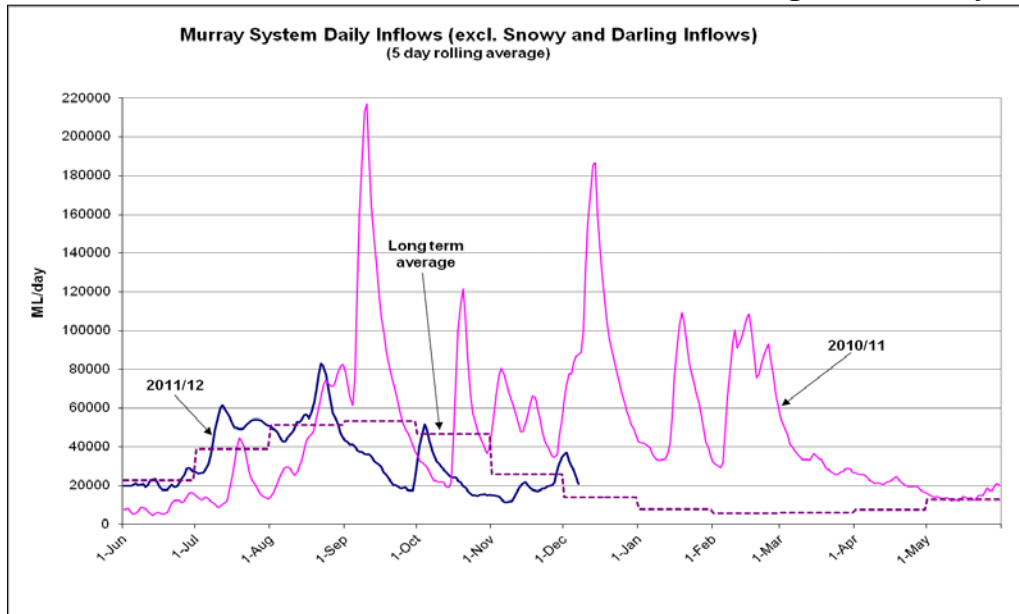
Lake Alexandrina average level for the past 5 days (m AHD)	0.65
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## Barrages

## Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.62	5	-	Open
Mundoo	26 openings	0.57	4	-	-
Boundary Creek	6 openings	-	1	-	-
Ewe Island	111 gates	-	3	-	-
Tauwichee	322 gates	0.62	5	Open	Open

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



State Allocations (as at 07 Dec 2011)

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/>