



# RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 2 OCTOBER 2013

Trim Ref: D13/35816

## Rainfall and Inflows

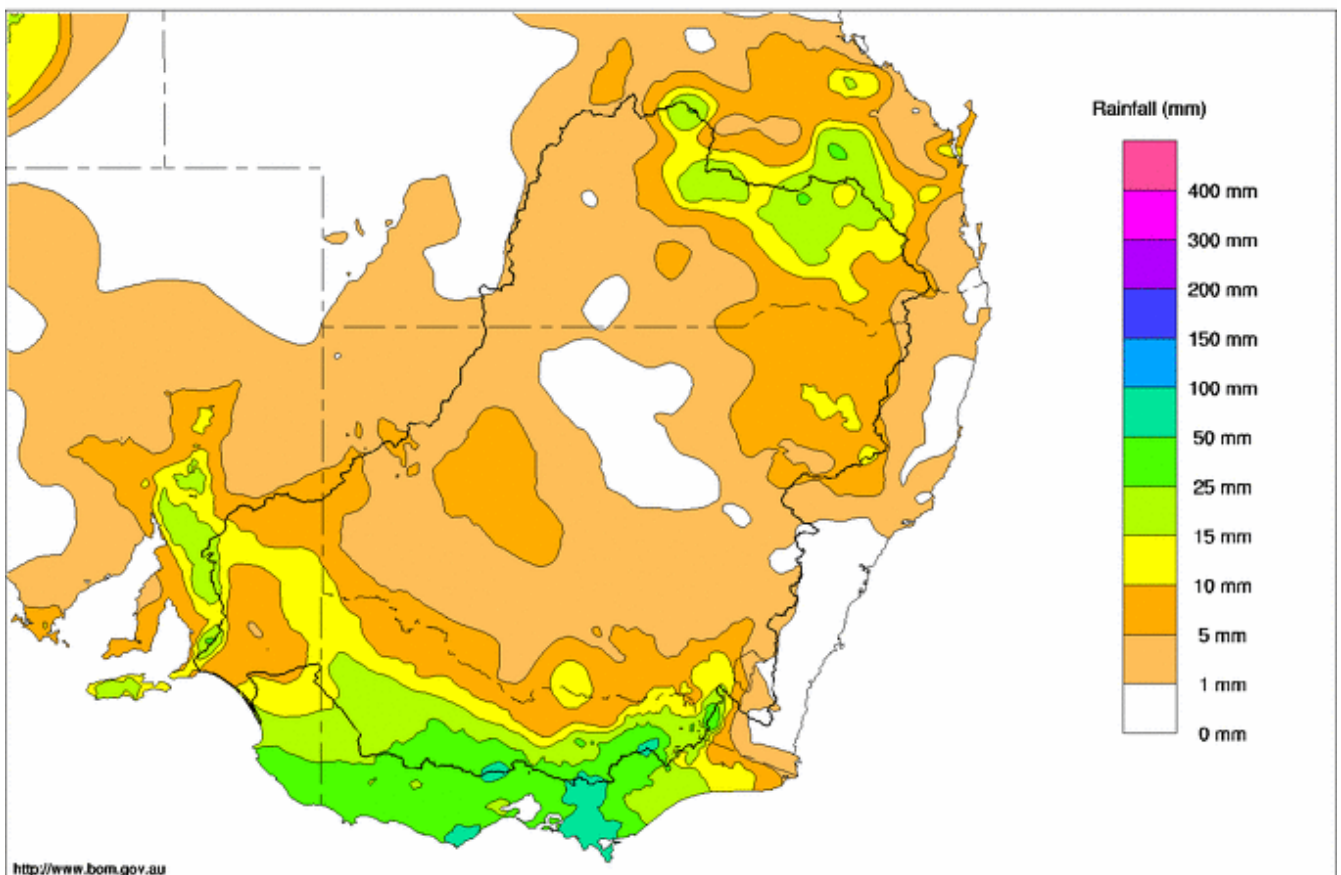
Rainfall was widespread across the Basin this week, although significant falls were mostly recorded in Victoria and Queensland (Map 1).

Highest precipitation totals were once again recorded along the southern divide. In Victoria, totals included 69 mm at Mount Buller, 67 mm at Mt Buffalo and 50 mm at Mt Hotham in the upper northeast. In central Victoria, 48 mm was recorded at Kyneton, 55 mm at Daylesford and 66 mm at Mt William. In New South Wales there was 60 mm recorded at Thredbo in the Snowy Mountains, 24 mm at Rowena in the northwest plains, 19 mm at Tocumwal in the Riverina and 15 mm at Cabramurra in the Snowy Ranges. Notable rainfall totals in Queensland included 26 mm at Drillham and 27 mm at Tindarra in the Condamine-Balonne catchment and 27 mm at Carnarvon Station near the headwaters of the Warrego River.

There was limited response to the rain in the upper Murray tributaries. At Hinnomunjie, on the Mitta Mitta River upstream of Dartmouth Reservoir, the flow increased to 2,500 ML/day while at Biggara on the upper River Murray, the flow increased to 2,100 ML/day. On the Ovens River at Wangaratta, the flow is expected to rise to about 5,500 ML/day in the next day or two.

Murray-Darling Rainfall Totals (mm) Week Ending 2nd October 2013

Product of the National Climate Centre



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Issued: 02/10/2013

Map 1 - Murray-Darling Basin rainfall for the week ending 2 October 2013 (Source: Bureau of Meteorology).

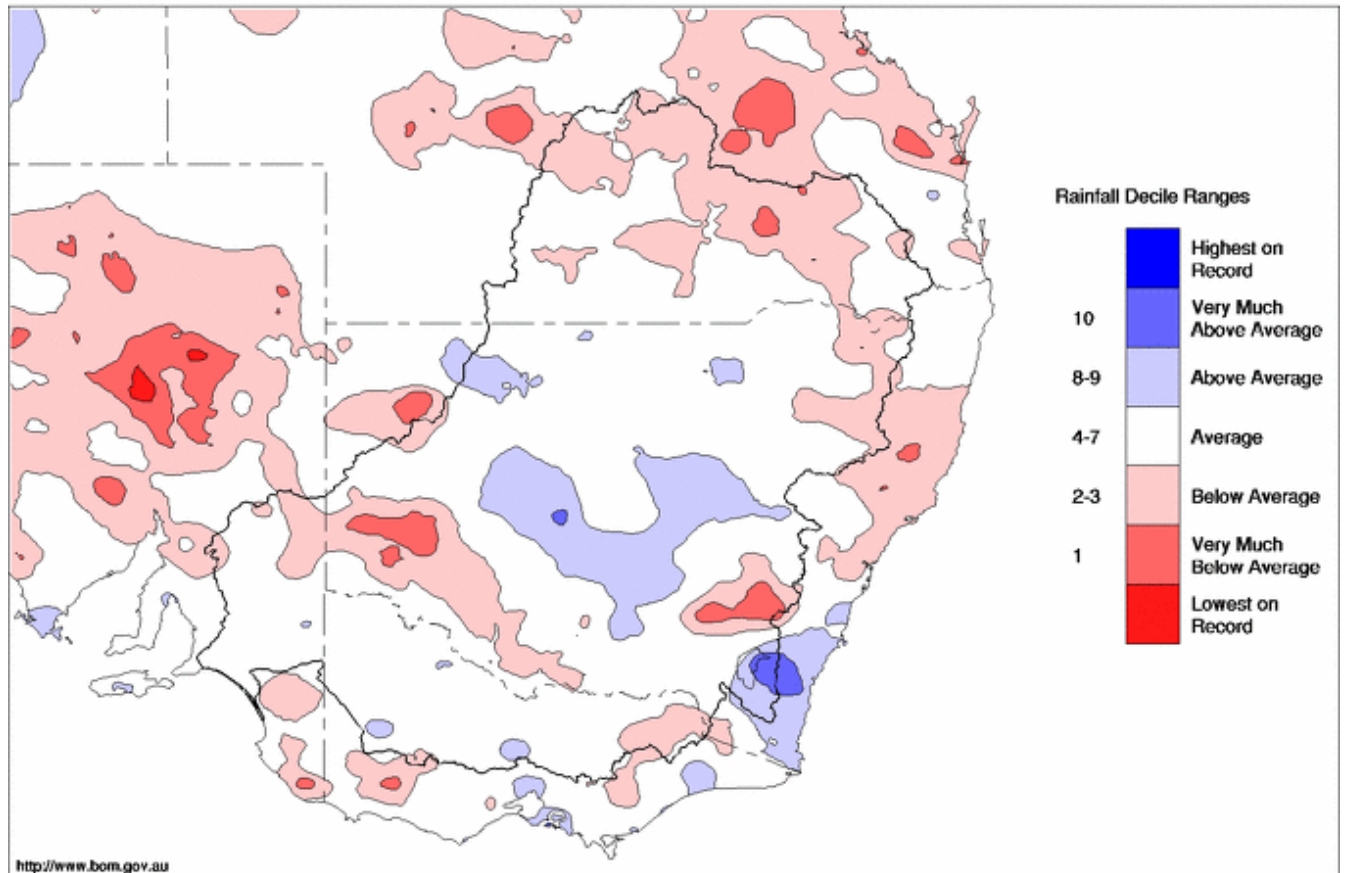


# September 2013 Summary

Rainfall in September 2013 was close to average across much of the Murray-Darling Basin, with areas of above average in the ACT, and south-eastern and central NSW. Below average rainfall was recorded in southern Queensland, the Victorian Alps and parts of NSW (Map 2). The Bureau of Meteorology reported that overall average rainfall across the Basin was 26% below the long-term mean with a total of 25 mm.

Murray-Darling Rainfall Deciles September 2013

Distribution Based on Gridded Data  
Product of the National Climate Centre



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

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Map 2 - Murray-Darling Basin rainfall deciles for September 2013 (Source: Bureau of Meteorology).

Across the Basin states, the average mean temperatures during September were the highest on record, with the Bureau of Meteorology stating that mean temperatures were around 2 to 4 degrees Celsius above average. The unusually warm weather continues the sequence of above-average conditions for the broader region during the last 12 months that, according to the Bureau, has led to Australia's highest October to September mean temperature on record. For more information, see <http://www.bom.gov.au/climate/change/>.

Warmer and drier conditions during September have reduced the inflows to the River Murray system. Inflows (excluding Snowy and Darling inflows) fell from around 1,750 GL in August to 1,050 GL during September (see the graph on page 6). This total was well below the long-term September average of around 1,600 GL, and comparable with the September average for the last 10 years.

## River Operations

MDBA active storage reduced again this week and is currently 7,908 GL, or 92% capacity. Information on upper state shares within each storage can be found on the MDBA web site at <http://www.mdba.gov.au/what-we-do/managing-rivers/river-murray-system/water-sharing>.



At Dartmouth Reservoir, the storage increased by 12 GL to 3,819 GL (99% capacity). As the storage is now effectively full, releases will be varied to approximately match the inflows and hence maintain about 40 GL of airspace in the reservoir. The flow at Colemans gauge is currently 3,500 ML/day and is expected to remain in the range 2,000–3,500 ML/day while relatively dry conditions continue. Downstream, the flow in the Mitta Mitta River at Tallandoon is currently 4,300 ML/day.

At Hume Reservoir, inflows have been gradually receding and the storage level has reduced by 23 GL to 2,955 GL (98% capacity). The release from Hume has been reduced at maximum rates throughout the week and is now 12,100 ML/day. The flow at Doctors Point, downstream of the Kiewa River junction, is currently 14,000 ML/day but this flow is expected to be increased in the next few days due to downstream demand.

At Yarrawonga Weir, total diversions have increased to almost 4,500 ML/day through Mulwala Canal and Yarrawonga Main Channel and are expected to increase further in the days ahead. The level of Lake Mulwala has temporarily risen to 124.92 m AHD (2 cm above FSL) to re-regulate inflows.

The current release from Yarrawonga Weir is 21,500 ML/day but this will be reduced in the coming days to target a flow of 18,000 ML/day. This release of about 18,000 ML/day is expected to continue for the next 2 weeks to supply environmental water to Barmah-Millewa Forest. Later in October, the release is expected to be reduced to 15,000 ML/day to continue the environmental watering.

On the Edward River system, combined flows through the Edward and Gulpa offtakes have totalled about 2,900 ML/day during the week. At Stevens Weir, the flow is at a peak of about 7,300 ML/day, and is expected to recede below 6,500 ML/day in the coming days. Downstream at Moulamein, the Edward River has been receding but higher flows are expected in the coming week. At Liewah, the Edward River is likely to remain steady for the next few days, while the Wakool River at Stoney Crossing is expected to slowly recede.

On the Goulburn River, the flow at McCoys Bridge is 2,600 ML/day and slowly receding. At Torrumbarry Weir, the flow in the River Murray has fallen to 19,900 ML/day and will continue falling for the next week or so. The diversion into National Channel is currently about 1,500 ML/day.

At Swan Hill, the flow is close to a peak at about 19,600 ML/day with the flow expected to fall below 15,000 ML/day within 1–2 weeks. On the lower Murrumbidgee River, flows are currently about 1,200 ML/day and fairly steady. The flow at Euston Weir has also been steady at about 25,300 ML/day but is expected to slowly reduce below 22,000 within the next week or so. At Wentworth, the flow has been steady at about 26,000 ML/day and is expected to remain above 25,000 ML/day for the next week.

Total storage in Menindee Lakes decreased by 15 GL during the week to 1,171 GL (68% capacity). The release to the lower Darling River (measured at Weir 32) is now 280 ML/day—slightly above the normal minimum—which is helping to maintain flow further downstream in the lower Darling River.

At Lake Victoria, the storage has been relatively steady with a current storage of 637 GL (94% capacity), or an increase of 2 GL since last week. The flow to South Australia has averaged 25,100 ML/day during the week and is expected to remain at about this rate for the next week or so.

At the Lower Lakes, high tides, large swells and strong winds have forced the closure of many barrage openings to reduce the flow of sea water into the lakes. As a consequence of reduced flows through the barrages, the water level in the Lower Lakes has risen to about 0.79 m AHD. The number of barrage openings will be increased as conditions allow.

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

DAVID DREVERMAN  
Executive Director, River Management





**Water in Storage**

**Week ending Wednesday 02 Oct 2013**

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	485.43	3 819	99%	71	3 748	+12
Hume Reservoir	192.00	3 005	191.75	2 955	98%	23	2 932	-23
Lake Victoria	27.00	677	26.67	637	94%	100	537	+2
Menindee Lakes		1 731*		1 171	68%	(480 #)	691	-15
<b>Total</b>		<b>9 269</b>		<b>8 582</b>	<b>93%</b>	<b>--</b>	<b>7 908</b>	<b>-24</b>
Total Active MDBA Storage							92% ^	

**Major State Storages**

Burrinjuck Reservoir	1 026	690	67%	3	687	+3
Blowering Reservoir	1 631	1 492	91%	24	1 468	+27
Eildon Reservoir	3 334	3 124	94%	100	3 024	+31

\* 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 Oct 2013

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2013
Lake Eucumbene - Total	1 862	n/a	Snowy-Murray	+2	489
Snowy-Murray Component	722	n/a	Tooma-Tumut	+6	179
Target Storage	1 400		Net Diversion	-3	311
			Murray 1 Release	+22	707

**Major Diversions from Murray and Lower Darling (GL) \***

New South Wales	This Week	From 1 July 2013	Victoria	This Week	From 1 July 2013
Murray Irrig. Ltd (Net)	16.1	171	Yarrowonga Main Channel (net)	0.2	3
Wakool Sys Allowance	0.0	-1	Torrumbarry System + Nyah (net)	8	87
Western Murray Irrigation	0.4	2	Sunraysia Pumped Districts	2.2	12
Licensed Pumps	3.4	29	Licensed pumps - GMW (Nyah+u/s)	0.4	4
Lower Darling	8.9	41	Licensed pumps - LMW	5	34
<b>TOTAL</b>	<b>28.7</b>	<b>242</b>	<b>TOTAL</b>	<b>15.8</b>	<b>140</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 normal entitlement for this month due to the commencement of unregulated flows.

Entitlement this month	170.0 *
Flow this week	175.7
Flow so far this month	49.9
Flow last month	584.8

(25 100 ML/day)

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

	Current	Average over the last week	Average since 1 August 2013
Swan Hill	100	110	110
Euston	110	100	120
Red Cliffs	80	80	130
Merbein	90	90	130
Burtundy (Darling)	490	480	450
Lock 9	110	110	150
Lake Victoria	310	300	310
Berri	280	280	330
Waikerie	220	200	400
Morgan	190	190	410
Mannum	300	330	500
Murray Bridge	370	390	530
Milang (Lake Alex.)	650	650	630
Poltalloch (Lake Alex.)	410	640	680
Meningie (Lake Alb.)	2 630	2 630	2 620
Goolwa Barrages	1 450	1 670	2 200



**River Levels and Flows**

**Week ending Wednesday 02 Oct 2013**

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	-	-	-	5 930	F	4 320	5 300
Jingellic	4.0	2.34	208.86	9 870	R	9 250	14 690
Tallandoon ( Mitta Mitta River )	4.2	2.49	219.38	4 340	R	3 340	5 010
Heywoods	5.5	2.74	156.37	12 140	F	16 670	20 710
Doctors Point	5.5	2.94	151.41	14 060	F	19 130	24 420
Albury	4.3	1.97	149.41	-	-	-	-
Corowa	3.8	3.58	129.60	18 100	F	22 200	23 330
Yarrowonga Weir (d/s)	6.4	2.98	118.02	21 490	F	25 450	29 070
Tocumwal	6.4	3.85	107.69	23 680	F	27 760	28 460
Torrumbarry Weir (d/s)	7.3	5.48	84.03	19 910	F	21 600	19 250
Swan Hill	4.5	3.32	66.24	19 580	R	19 120	18 830
Wakool Junction	8.8	6.29	55.41	24 360	S	24 640	25 530
Euston Weir (d/s)	8.8	3.89	45.73	25 270	S	25 600	25 670
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	4.30	29.06	26 120	R	26 090	25 770
Rufus Junction	-	5.56	22.49	23 420	S	23 660	23 300
Blanchetown (Lock 1 d/s)	-	-	-	22 680	F	22 920	20 230
<b>Tributaries</b>							
Kiewa at Bandiana	2.7	2.02	155.25	2 120	F	2 700	3 810
Ovens at Wangaratta	11.9	9.40	147.08	4 310	S	5 000	7 150
Goulburn at McCoys Bridge	9.0	2.35	93.77	2 570	F	6 210	6 760
Edward at Stevens Weir (d/s)	-	-	-	7 320	F	6 960	6 310
Edward at Liewah	-	-	-	3 590	F	3 680	4 110
Wakool at Stoney Crossing	-	-	-	4 080	F	4 410	5 280
Murrumbidgee at Balranald	5.0	1.69	-	1 110	F	1 320	1 330
Barwon at Mungindi	-	3.18	-	90	S	100	160
Darling at Bourke	-	4.09	-	330	S	380	470
Darling at Burtundy Rocks	-	0.76	-	180	R	170	180

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	14 610	24 070
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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	+0.02	-	No. 7 Rufus River	22.10	+0.41	+3.23
No. 26 Torrumbarry	86.05	-0.01	-	No. 6 Murtho	19.25	+0.02	+1.45
No. 15 Euston	47.60	+0.13	-	No. 5 Renmark	16.30	-0.01	+1.19
No. 11 Mildura	34.40	+0.00	+1.41	No. 4 Bookpurnong	13.20	-0.06	+2.16
No. 10 Wentworth	30.80	+0.00	+1.66	No. 3 Overland Corner	9.80	-0.07	+1.46
No. 9 Kulnine	27.40	+0.16	+1.06	No. 2 Waikerie	6.10	-0.04	+1.56
No. 8 Wangumma	24.60	+0.45	+1.27	No. 1 Blanchetown	3.20	+0.04	-1.02

**Lower Lakes FSL = 0.75 m AHD**

Lake Alexandrina average level for the past 5 days (m AHD)	0.79
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**Barrages**

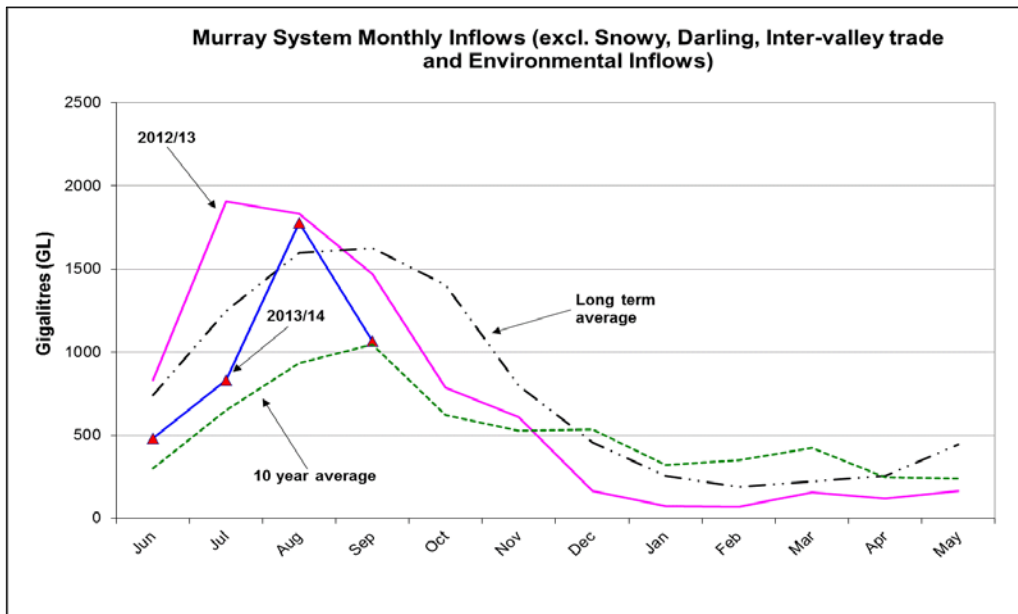
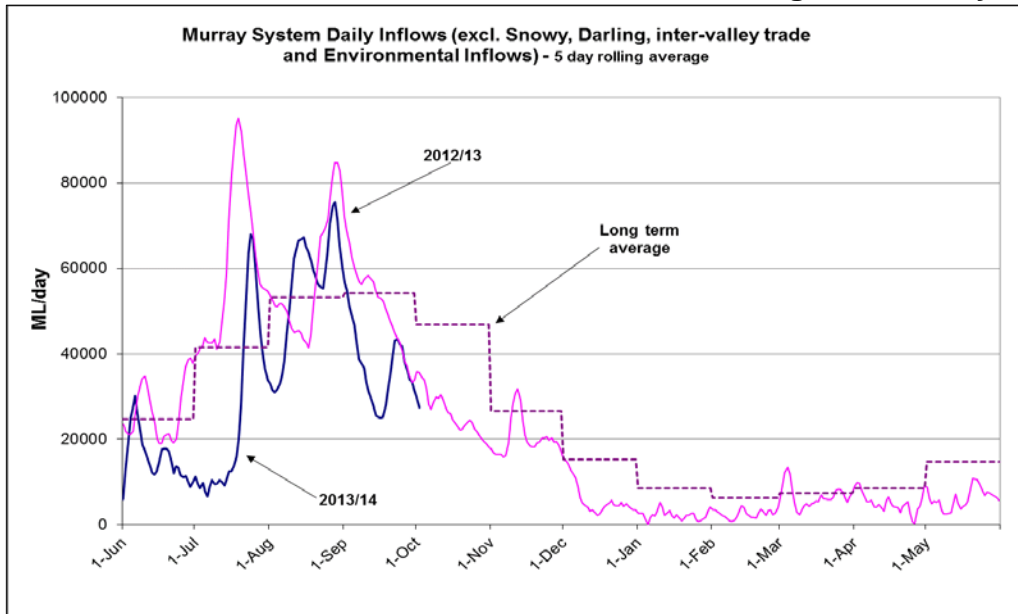
**Fishways at Barrages**

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.68	All Closed	-	Open
Mundoo	26 openings	0.73	All Closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All Closed	-	-
Tauwichee	322 gates	0.85	1	Open	Open

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



Week ending Wednesday 02 Oct 2013



State Allocations (as at 02 Oct 2013)

NSW - Murray Valley

High security	100%
General security	100%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	43%

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/Water-management/Water-availability/Water-allocations/Water-allocations-summary/water-allocations-summary/default.aspx>

VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>

SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>