



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 30 OCTOBER 2013

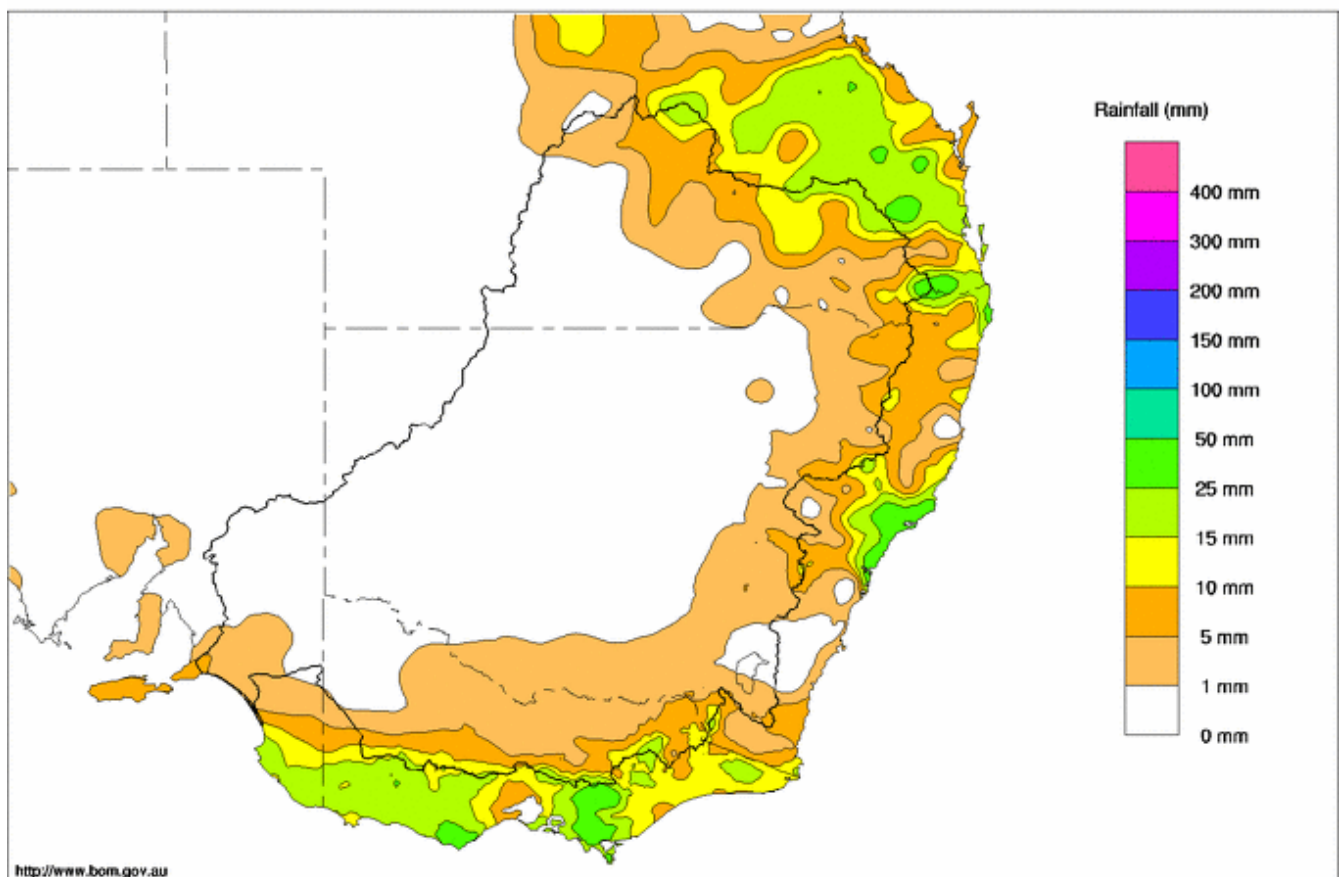
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Rainfall and Inflows

It was dry across most of the Murray-Darling Basin over the past week, with the only worthwhile rain recorded along the Basin's far southern, northern and eastern fringes (Map 1). The rain resulted from a weak cold front that crossed early in the week and a trough that brought showers and storms towards the end of the week.

The highest totals were recorded over the upper Condamine River catchment and included 40 mm at Yangan, 36 mm at The Head and 35 mm at Killarney. The highest totals in southern areas fell over the Victorian high country and included 38 mm at Rocky Valley, 25 mm at Mt Buller and 21 mm at Mt Hotham. Other notable totals included 19 mm at Armidale Airport and 17 mm at Kilmore Gap.

Murray-Darling Rainfall Totals (mm) Week Ending 30th October 2013
Product of the National Climate Centre



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Issued: 30/10/2013

Map 1 - Murray-Darling Basin rainfall for the week ending 30 October 2013 (Source: Bureau of Meteorology).

Flows along the upper Murray tributaries were mostly lower by week's end as rivers peaked then receded away. On the Mitta Mitta River, the flow at Hinnomunjie Bridge decreased from 2,900 to 900 ML/day. On the upper River Murray, the flow at Biggara peaked at 1,600 ML/day before receding to 1,000 ML/day. On the Ovens River, the flow at Wangaratta peaked at around 4,000 ML/day and is now flowing at 2,700 ML/day.



River Operations

MDBA active storage decreased by 61 GL this week and is currently 7,610 GL, or 89% capacity.

At Dartmouth Reservoir, the current storage volume is 3,819 GL (99% capacity) and remains unchanged from one week ago. Slightly higher inflows continued for longer than was initially expected and resulted in the release (measured at Colemans) being held at 2,500 ML/day throughout the week. The release continues to be managed to match inflows and is expected to be decreased to about 1,500 ML/day over the coming days as inflows are now receding and no significant rain is forecast.

At Hume Reservoir, the storage volume decreased by 41 GL to 2,732 GL (91% capacity). The release was reduced mid-week to as low as 13,600 ML/day in response easing demands, but has since been increased above 20,000 ML/day as demands increased and tributary inflows fell away downstream of the dam. Releases between 17,000 and 21,000 ML/day are anticipated for the coming week.

At Yarrowonga Weir, the release remains at 15,000 ML/day. This flow, which includes environmental water for the benefit of Barmah-Millewa Forest, is planned to continue until late November. Total diversions through Mulwala Canal and Yarrowonga Main Channel decreased to as low as 5,400 ML/day during the week but have since increased to around 6,300 ML/day. The current level in Lake Mulwala is 124.76 m AHD (14 cm below FSL) and is expected to remain between 124.7 and 124.9 m AHD over the coming week.

On the Edward River system, the combined inflow through the Edward and Gulpa offtakes has decreased only slightly, with the total now at about 2,800 ML/day. The flow downstream of Stevens Weir has averaged around 1,400 ML/day, while diversions into the Wakool Main Canal have averaged about 1,600 ML/day. Downstream on the Wakool River, the flow at Stoney Crossing receded from 2,600 to 1,400 ML/day.

At the Barmah-Millewa Forest, higher flows are currently being maintained with the release of additional environmental water from Hume Reservoir and the river continues to run above channel capacity through the 'Choke' enabling on-going watering of wetlands around Barmah Lake (Figure 1).



Figure 1 - flows through the Barmah 'Choke' are currently running above channel capacity due to the release of environmental water that is maintaining inundation of the adjacent wetland ecosystems. Photo: Andrew Bishop, MDBA.



At Barmah town, the flow is currently at 11,600 ML/day (3.48 m on the local gauge) and slowly receding, with flows downstream of the 'Choke' remaining well within bank (Figure 2).



Figure 2 - a thin layer of mist observed over the River Murray downstream of Barmah during a recent cold morning where flows remain within channel. Photo: Andrew Bishop, MDBA.

On the Goulburn River, the flow at McCoys Bridge increased steadily throughout the week and is currently peaking at around 3,200 ML/day. The flow should begin to fall back in the coming days. At Torrumbarry Weir, the downstream flow in the River Murray increased slowly from around 11,500 to 12,200 ML/day with only a slight reduction in flows expected later in the coming week. Diversions through the National Channel have been fairly steady all week at about 2,500 ML/day.

On the lower Murrumbidgee River, the flow at Balranald has averaged around 1,100 ML/day although a slight increase in flows is expected during the next few days. At Euston Weir, the flow along the Murray has receded from 18,800 to 14,400 ML/day, however, flows should level out in the next day or two before increasing slightly as higher flows arrive from upstream.

Downstream of Euston, environmental works to enable beneficial watering of the Hattah Lakes system have recently been completed. The works include a pumping station, regulators and levee banks and will enable the on-going delivery of water needed to maintain their environmental health. The process of commissioning the structures is now underway with between 250 and 1,000 ML of environmental water being pumped into the system each day over the coming weeks (Figure 3).

Downstream at Mildura and Wentworth, the current recession should continue until well into the coming week.



Figure 3 - water passing through the outflow pipes from the pumps that can now supply environmental water to Hattah Lakes.
Photo: Heather Peachey, MDBA.

On the Darling River, flows upstream of Menindee Lakes continue to slowly recede with the flow at Wilcannia currently around 400 ML/day. Total storage in the lakes has decreased by 33 GL to the current volume of 1,065 GL. The release, measured at Weir 32, remains at about 250 ML/day.

At Lake Victoria, the lake reached effective full supply level of 26.95 m AHD during the week with a volume of 671 GL (99% capacity). The lake is now at a level 26.93 m AHD and is expected to remain close to full supply over the coming week.

'Unregulated flows', which have been declared by the MDBA since July, came to an end this week as upstream flows along the River Murray continue to fall away. Unregulated flows are declared by the MDBA when rising flows in the River Murray mean that, within channel constraints, MDBA forecasts indicate there will be more than enough water to meet the required flow to South Australia and also refill Lake Victoria at a later date. The additional flow is then passed into South Australia at rates above the state's normal entitlement flow. The flow to South Australia during the past week averaged 14,100 ML/day. Flows during the coming weeks will be managed to meet the monthly South Australian entitlement and also deliver additional traded environmental water.

At the Lower Lakes, the 5-day average level for Lake Alexandrina is 0.75 m AHD. Flows into the Coorong through the Barrages are currently estimated at around 2,000 to 3,000 ML/day.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 30 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	+0
Hume Reservoir	192.00	3 005	190.60	2 732	91%	23	2 709	-41
Lake Victoria	27.00	677	26.93	668	99%	100	568	+13
Menindee Lakes		1 731*		1 065	62%	(480 #)	585	-33
Total		9 269		8 284	89%	--	7 610	-61
Total Active MDBA Storage							89% ^	

Major State Storages

Burrinjuck Reservoir	1 026	670	65%	3	667	+4
Blowering Reservoir	1 631	1 461	90%	24	1 437	-17
Eildon Reservoir	3 334	3 155	95%	100	3 055	-5

* 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 29 Oct 2013

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2013
Lake Eucumbene - Total	1 884	n/a	Snowy-Murray	+3	500
Snowy-Murray Component	776	n/a	Tooma-Tumut	+8	201
Target Storage	1 400		Net Diversions	-5	299
			Murray 1 Release	+12	743

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)	37.5	330	Yarrowonga Main Channel (net)	9.9	93
Wakool Sys Allowance	0.0	-1	Torrumbarry System + Nyah (net)	15.3	142
Western Murray Irrigation	0.7	5	Sunraysia Pumped Districts	2.8	23
Licensed Pumps	6.7	62	Licensed pumps - GMW (Nyah+u/s)	1	6
Lower Darling	10.1	83	Licensed pumps - LMW	5	54
TOTAL	55.0	479	TOTAL	34	318

* 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 additional unregulated flows.

Entitlement this month	170.0 *
Flow this week	98.4
Flow so far this month	610.1
Flow last month	584.8

(14 100 ML/day)

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

	Current	Average over the last week	Average since 1 August 2013
Swan Hill	70	90	100
Euston	80	80	110
Red Cliffs	90	90	120
Merbein	100	100	120
Burtundy (Darling)	550	590	490
Lock 9	110	110	140
Lake Victoria	240	230	290
Berri	210	230	290
Waikerie	290	260	340
Morgan	240	220	340
Mannum	210	200	410
Murray Bridge	230	220	440
Milang (Lake Alex.)	690	700	650
Poltalloch (Lake Alex.)	370	370	600
Meningie (Lake Alb.)	2 540	2 500	2 580
Goolwa Barrages	800	790	1 890



River Levels and Flows

Week ending Wednesday 30 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	-	-	-	700	F	2 490	2 590
Jingellic	4.0	1.62	208.14	3 650	F	6 610	5 260
Tallandoon (Mitta Mitta River)	4.2	2.20	219.09	2 980	F	3 000	2 330
Heywoods	5.5	3.38	157.01	19 010	R	15 160	17 730
Doctors Point	5.5	3.49	151.96	20 850	R	16 770	19 250
Albury	4.3	2.55	149.99	-	-	-	-
Corowa	3.8	3.36	129.38	16 530	R	17 360	20 250
Yarrowonga Weir (d/s)	6.4	2.29	117.33	15 050	S	15 120	15 920
Tocumwal	6.4	2.98	106.82	14 870	F	15 060	16 450
Torrumbarry Weir (d/s)	7.3	3.75	82.30	12 190	R	11 770	11 330
Swan Hill	4.5	2.07	64.99	11 150	R	10 690	11 440
Wakool Junction	8.8	4.39	53.51	14 070	S	14 760	18 540
Euston Weir (d/s)	8.8	2.53	44.37	14 410	F	16 440	21 080
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	3.56	28.32	15 350	R	17 370	21 840
Rufus Junction	-	4.37	21.30	12 510	F	13 260	15 360
Blanchetown (Lock 1 d/s)	-	1.16	-	12 870	R	10 560	18 830
Tributaries							
Kiewa at Bandiana	2.7	1.49	154.72	1 200	F	1 640	1 650
Ovens at Wangaratta	11.9	8.81	146.49	2 740	R	2 970	2 430
Goulburn at McCoys Bridge	9.0	2.66	94.08	3 180	R	2 570	1 090
Edward at Stevens Weir (d/s)	-	1.64	81.41	1 500	F	1 390	1 880
Edward at Liewah	-	2.44	57.82	1 840	F	2 110	3 070
Wakool at Stoney Crossing	-	1.77	55.26	1 440	F	1 820	3 260
Murrumbidgee at Balranald	5.0	1.93	57.89	1 480	R	1 140	1 050
Barwon at Mungindi	-	3.14	-	30	S	30	20
Darling at Bourke	-	4.02	-	110	R	100	140
Darling at Burtundy Rocks	-	0.75	-	160	S	160	160

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	9 590	8 960
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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	-0.14	-	No. 7 Rufus River	22.10	-0.01	+2.05
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.00	+0.70
No. 15 Euston	47.60	-0.03	-	No. 5 Renmark	16.30	+0.04	+0.65
No. 11 Mildura	34.40	+0.04	+0.67	No. 4 Bookpurnong	13.20	+0.05	+1.46
No. 10 Wentworth	30.80	+0.05	+0.92	No. 3 Overland Corner	9.80	+0.06	+0.67
No. 9 Kulnine	27.40	+0.11	+0.49	No. 2 Waikerie	6.10	-0.05	+0.74
No. 8 Wangumma	24.60	+0.36	+0.37	No. 1 Blanchetown	3.20	+0.04	+0.41

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.75
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Barrages

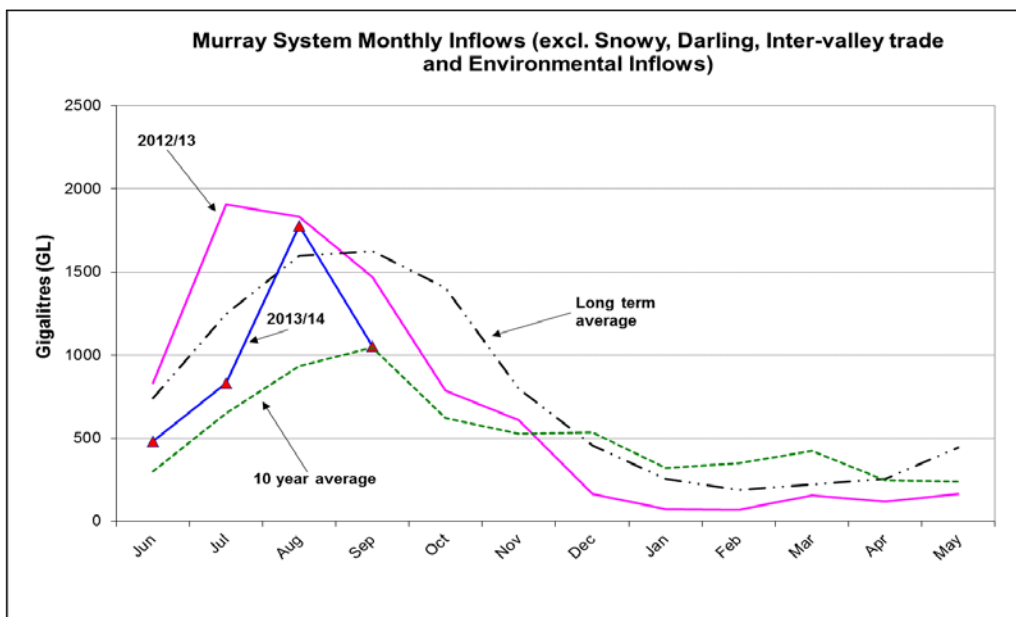
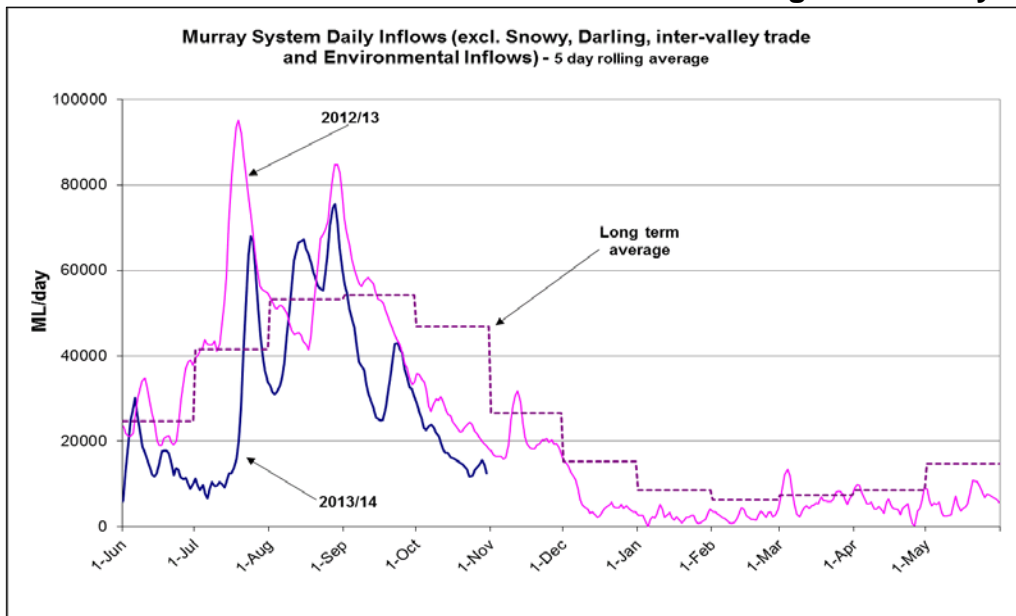
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.75	3	-	Open
Mundoo	26 openings	0.70	1	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.73	5	Open	Open

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



Week ending Wednesday 30 Oct 2013



State Allocations (as at 30 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>