



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 29TH JUNE 2016

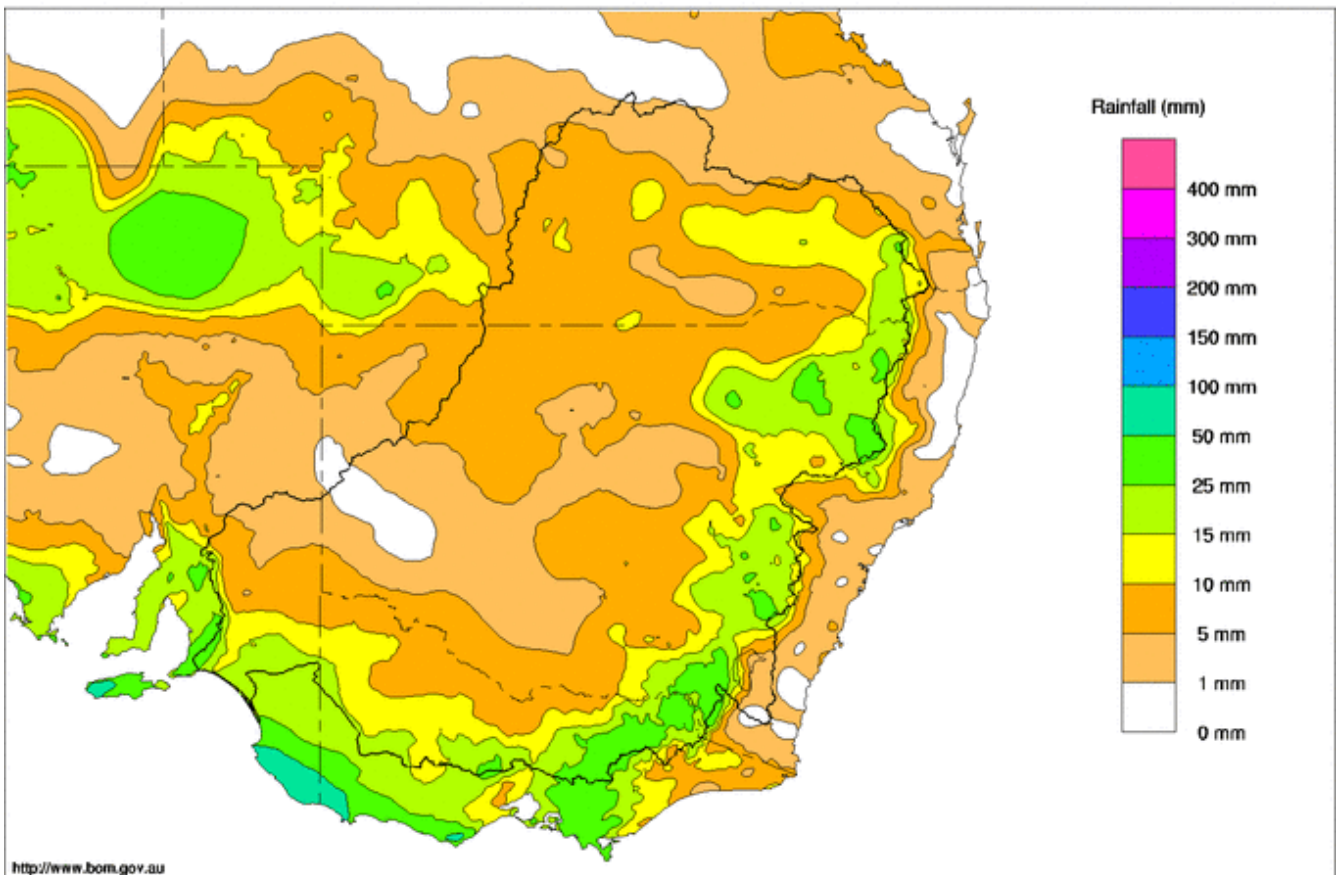
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Rainfall and inflows

Rain fell across most of the Murray–Darling Basin in the last week (see Map 1), but was concentrated around the southern and eastern perimeter. The rain was associated with a cold front moving across the Bight and Bass Strait, which also brought cold southerly winds and snowfalls in the alps.

Notable rainfall totals included 54.8 mm at Meadows in South Australia, 55.6 mm at Mt Buller upstream of Lake Eildon, 65.0 mm at Whitlands in the Ovens River catchment, 34.8 mm at Nariel Creek in the upper Murray, 34.2 mm at Cabramurra in the Snowy Mountains, 32.4 mm at Crookwell in the Lachlan River catchment, 38.6 mm at Hargraves in the Macquarie River catchment, 40.8 mm at Dungowan in the upper Namoi and 26.8 mm at Chinchilla in the Condamine River catchment.

Murray-Darling Rainfall Totals (mm) Week Ending 29th June 2016
Australian Bureau of Meteorology



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Issued: 29/06/2016

Map 1 - Murray-Darling Basin rainfall week ending 29th June 2016 (Source: Bureau of Meteorology)

This week's rain prompted renewed, but modest, streamflow rises in the upper Murray tributaries. On the Mitta Mitta River, the flow at Hinnomunjie Bridge peaked at around 3,200 ML/day while the Murray at Biggara reached around 3,500 ML/day. On the Kiewa River, the flow at Mongans Bridge reached around 4,650 ML/day. The flow at Wangaratta on the Ovens River has steadily increased to peak at around 12,850 ML/day on 26 June. With modest rainfall totals forecast for the coming week, flows may increase again before slowly receding.



River Murray system inflows (excluding Snowy, Darling, inter-valley trade and environmental inflows) for the week totalled 310 GL, which is the highest weekly total since late July 2014. The Bureau of Meteorology is forecasting in their latest [climate outlook](#) that rainfall is likely to be above average throughout the Murray–Darling Basin for July to September. With many catchments now quite wet this increases the prospects of, but doesn't guarantee, higher inflow volumes in coming months.

River operations

- Storage volumes continue to rise
- Flow downstream of Yarrawonga Weir peaks at 17,600 ML/day

MDBA total storage increased by 218 GL this week, with the active storage now 3,182 GL or 38% capacity.

At **Dartmouth** Reservoir, the storage volume increased by 34 GL to 1,799 GL (47% capacity). The release remains at the minimum of 200 ML/day at Colemans gauge.

At **Hume** Reservoir, the storage volume increased by 152 GL to 1,145 GL (38% capacity). Nearly one-third of the inflow to Hume Reservoir is from the Snowy Hydro scheme. Inflows from the Snowy scheme in the coming year will include both their required annual release, plus delivery of up to 200 GL as an [advance to Murray Irrigation](#). The release from Hume remains at the minimum of 600 ML/day.

At **Yarrawonga** Weir, the release has peaked at 17,600 ML/day (see Photo 1). This is the highest release from Yarrawonga since late July 2014. The release is expected to reduce for the next few days, but higher flows are possible later in the week depending on rainfall in the Kiewa and Ovens catchments. Most regulators in the Barmah-Millewa Forest have been opened to manage this extra water.



Photo 2 – The release through the gates of Yarrawonga Weir when the flow was 17,400 ML/day on 27 June (Photo courtesy: Brad Moutat, Goulburn-Murray Water)

On the **Edward** River system, the flow through the Edward River offtake has increased to 2,100 ML/day and is expected to continue increasing with the higher flows in the River Murray. However, at Gulpa



Creek offtake, the flow should remain steady at about 320 ML/day for at least another week while maintenance work and inspections are undertaken downstream.

On the **Goulburn** River, the flow has recently peaked at McCoys Bridge at around 3,660 ML/day, due to the recent rain.

At **Torrumbarry** Weir, water continues to be diverted at National Channel to maintain winter base flows in Gunbower Creek and for filling mid-Murray storages. The flow downstream of Torrumbarry is currently 8,550 ML/day and is expected to reach at least 9,000 ML/day in the next few days.

The weir pool at **Euston** is currently 47.46 m AHD. This level likely to exceed the Full Supply Level of 47.6 m AHD by up to 40 cm in the coming days. The weir pool is being filled to manage the downstream release to enable maintenance work in the lock to continue.

The storage volume in the **Menindee Lakes** is steady at 48 GL (3% capacity). The flow upstream in the Darling River at Bourke has increased above 5,000 ML/day and is expected to continue rising. Inflows of at least 80 GL, and potentially exceeding 150 GL, are expected to start reaching the Menindee Lakes from about mid-July.

At **Wentworth** Weir on the River Murray, the flow is currently 10,800 ML/day and rising. The flow is expected to reach 13,000 ML/day in early July.

At **Lake Victoria**, the storage volume has increased by 32 GL in the past week to 432 GL (64% capacity). To increase the flow into Lake Victoria while the river flows are high, the weir pool at Lock 9 is being raised to about 15 cm above Full Supply Level over the next few days.

The flow across the **South Australian** border averaged 2,800 ML/day last week and is planned to increase to 3,300 ML/day on 1 July.

The water level in the **Lower Lakes** has increased to 0.67 m AHD and is expected to continue gradually increasing over winter.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 29 Jun 2016

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	447.25	1 799	47%	71	1 728	+34
Hume Reservoir	192.00	3 005	180.11	1 145	38%	23	1 122	+152
Lake Victoria	27.00	677	24.85	432	64%	100	332	+32
Menindee Lakes		1 731*		48	3%	(- -) #	0	-0
Total		9 269		3 424	37%	--	3 182	+218
Total Active MDBA Storage							38% ^	

Major State Storages

Burrinjuck Reservoir	1 026	601	59%	3	598	+59
Blowering Reservoir	1 631	1 036	64%	24	1 012	+47
Eildon Reservoir	3 334	1 179	35%	100	1 079	+51

* Menindee surcharge capacity – 2050 GL

** All Data is rounded to nearest GL **

NSW has sole access to water when the storage falls below 480 GL. MDBA regains access to water when the storage next reaches 640 GL.

^ % of total active MDBA storage

Snowy Mountains Scheme

Snowy diversions for week ending 28 Jun 2016

Storage	Active Storage (GL)	Weekly Change (GL)	Diversion (GL)	This Week	From 1 May 2016
Lake Eucumbene - Total	1 386	n/a	Snowy-Murray	+36	189
Snowy-Murray Component	849	n/a	Tooma-Tumut	+16	65
Target Storage	1 240		Net Diversion	20	123
			Murray 1 Release	+47	260

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2015	Victoria	This Week	From 1 July 2015
Murray Irrig. Ltd (Net)	-0.1	442	Yarrowonga Main Channel (net)	0	247
Wakool Sys Allowance	-0.3	90	Torrumbarry System + Nyah (net)	3.7	501
Western Murray Irrigation	0.1	20	Sunraysia Pumped Districts	0	106
Licensed Pumps	0.7	205	Licensed pumps - GMW (Nyah+u/s)	2.8	53
Lower Darling	0.1	11	Licensed pumps - LMW	1.2	302
TOTAL	0.5	768	TOTAL	7.7	1209

* Figures are derived from actual and estimates where data is unavailable. 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 Lower than normal for this month due to SA entitlement deferral.

Entitlement this month	90.0 *	
Flow this week	19.4	(2 800 ML/day)
Flow so far this month	82.2	
Flow last month	91.8	

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

	Current	Average over the last week	Average since 1 August 2015
Swan Hill	80	80	70
Euston	-	-	-
Red Cliffs	110	110	120
Merbein	110	110	120
Burtundy (Darling)	1 610	1 600	1 320
Lock 9	120	120	120
Lake Victoria	180	180	200
Berri	280	290	220
Waikerie	360	350	270
Morgan	380	340	270
Mannum	310	310	310
Murray Bridge	330	340	330
Milang (Lake Alex.)	840	870	800
Poltalloch (Lake Alex.)	830	740	680
Meningie (Lake Alb.)	1 890	1 960	2 100
Goolwa Barrages	7 890	8 900	2 160



River Levels and Flows

Week ending Wednesday 29 Jun 2016

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	-	-	-	9 400	F	9 690	6 460
Jingellic	4.0	2.78	209.30	14 460	F	16 700	9 940
Tallandoon (Mitta Mitta River)	4.2	1.79	218.68	1 530	F	1 840	1 130
Heywoods	5.5	1.47	155.10	600	S	600	600
Doctors Point	5.5	2.05	150.52	4 620	F	5 270	3 470
Albury	4.3	1.13	148.57	-	-	-	-
Corowa	4.6	1.54	127.56	5 480	F	5 410	3 310
Yarrowonga Weir (d/s)	6.4	2.55	117.59	17 630	R	14 360	9 450
Tocumwal	6.4	3.05	106.89	16 940	R	12 680	9 250
Torrumbarry Weir (d/s)	7.3	2.74	81.29	8 550	R	7 840	7 190
Swan Hill	4.5	1.41	64.33	7 460	F	7 540	5 300
Wakool Junction	8.8	3.46	52.58	10 220	R	9 510	6 850
Euston Weir (d/s)	9.1	2.29	44.13	12 790	R	10 870	7 910
Mildura Weir (d/s)	-	-	-	10 940	F	8 920	7 620
Wentworth Weir (d/s)	7.3	3.19	27.95	10 770	R	8 360	7 100
Rufus Junction	-	2.79	19.72	2 490	R	2 410	2 410
Blanchetown (Lock 1 d/s)	-	0.61	-	2 550	S	2 520	2 600
Tributaries							
Kiewa at Bandiana	2.8	2.86	156.09	4 890	F	6 400	3 140
Ovens at Wangaratta	11.9	10.40	148.08	8 440	F	10 560	4 930
Goulburn at McCoys Bridge	9.0	2.89	94.31	3 600	R	2 380	1 090
Edward at Stevens Weir (d/s)	5.5	1.99	81.76	1 990	F	1 910	1 600
Edward at Liewah	-	2.47	57.85	1 810	R	1 730	1 610
Wakool at Stoney Crossing	-	1.31	54.81	250	S	270	380
Murrumbidgee at Balranald	5.0	4.49	60.45	5 100	R	4 050	1 700
Barwon at Mungindi	6.1	3.11	-	0	F	0	10
Darling at Bourke	9.0	4.62	-	4 180	R	2 980	330
Darling at Burtundy Rocks	-	0.59	-	0	F	0	0

Natural Inflow to Hume	23 600	12 110
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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	+0.03	+0.47
No. 26 Torrumbarry	86.05	-0.40	-	No. 6 Murtho	19.25	-0.04	-0.03
No. 15 Euston	47.60	-0.14	-	No. 5 Renmark	16.30	+0.03	+0.12
No. 11 Mildura	34.40	+0.01	-39.80	No. 4 Bookpurnong	13.20	+0.03	+0.29
No. 10 Wentworth	30.80	+0.00	+0.55	No. 3 Overland Corner	9.80	+0.01	+0.15
No. 9 Kulnine	27.40	+0.08	-0.02	No. 2 Waikerie	6.10	+0.06	-0.01
No. 8 Wangumma	24.60	+0.01	+0.05	No. 1 Blanchetown	3.20	-0.08	-0.14

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.67
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Barrages

Fishways at Barrages

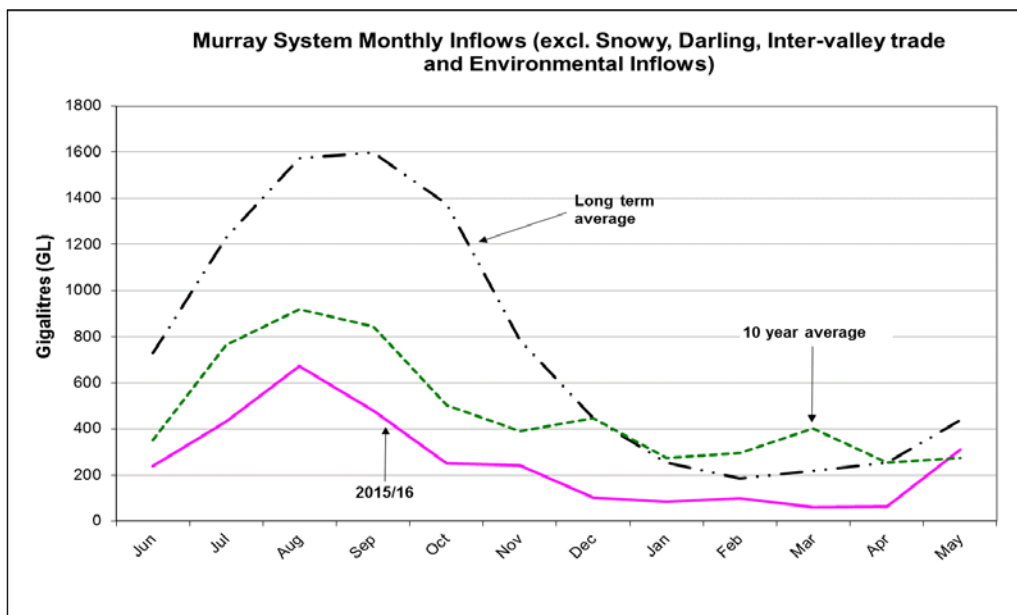
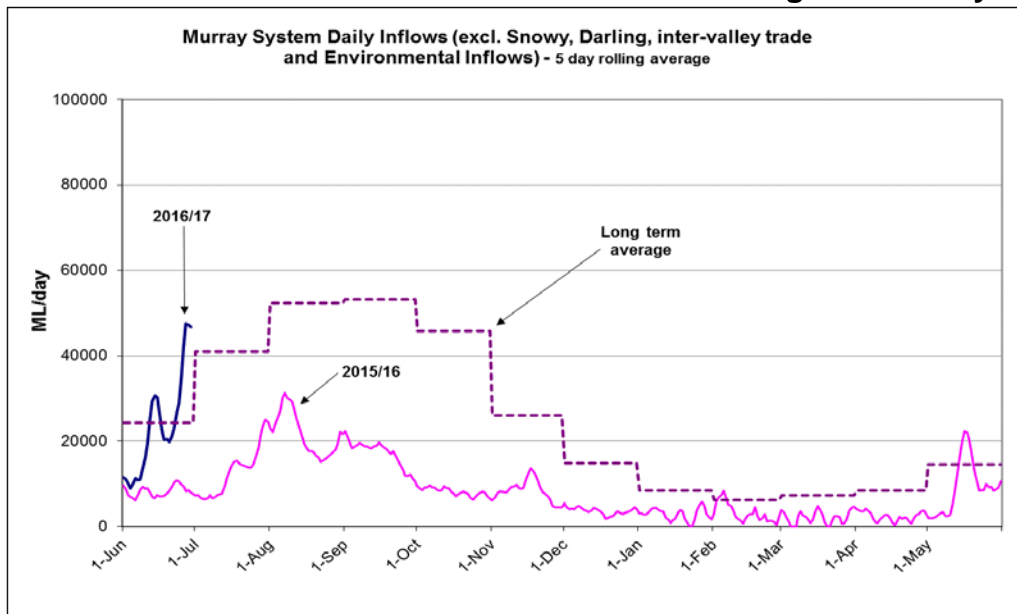
	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.74	All closed	-	Open	Open	-
Mundoo	26 openings	0.69	All closed	-	-	-	Closed
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	All closed	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwicheere	322 gates	0.73	All closed	Open	Open	Open	-

* Mundoo Barrage Dual vertical slots are currently under construction.

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



Week ending Wednesday 29 Jun 2016



State Allocations (as at 29 Jun 2016)

NSW - Murray Valley

High security	97%
General security	23%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	37%

Victorian - Goulburn Valley

High reliability	90%
Low reliability	0%

NSW - Lower Darling

High security	80%
General security	0%

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.nvrn.net.au/allocations/current.aspx>
- SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>