



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 15TH JULY 2015

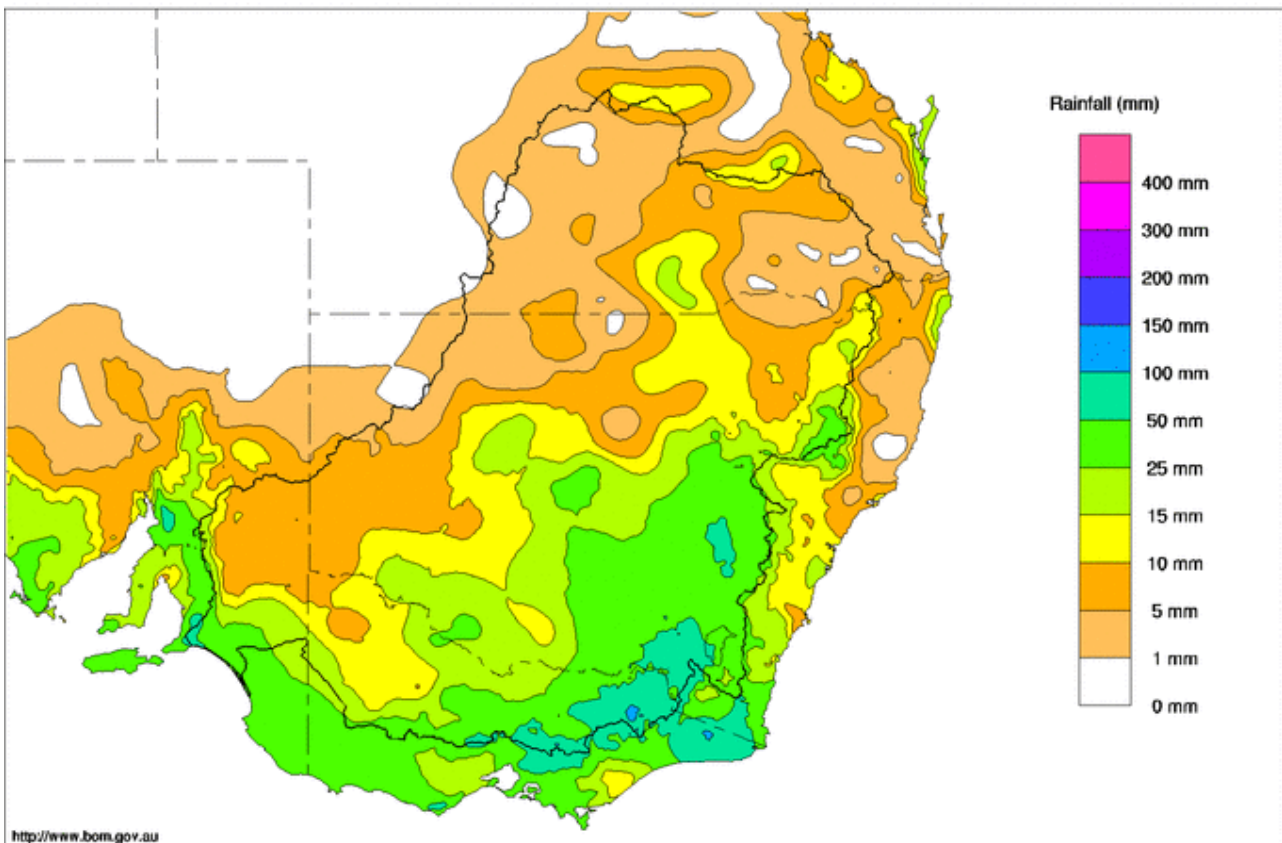
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Rainfall and Inflows

There were wintry conditions across the Murray-Darling Basin this week as strong cold frontal systems brought rain and snowfalls to the region, and a significant surge of cold air that was felt over much of eastern Australia. The heaviest precipitation was recorded across the Basin's south-east, where the first heavy snowfalls of the season blanketed the ranges. Snow also fell over the higher parts of the ranges and tablelands further north, with falls extending to places such as Orange and Guyra in eastern NSW and even over Queensland's Darling Downs.

Weekly rain totals in excess of 25 mm were widespread through the south and south-east (Map 1). Notable totals in Victoria included 88 mm at Mt Buffalo and Woods Point, 81 mm at Gibbo Park, 79 mm at Cheshunt, 52 mm at Woodend and Daylesford and 35 mm at Bendigo. In NSW, totals over the Snowy Mountains were mostly in excess of 50 mm, while further north there was 62 mm at Orange and 60 mm at Bigga.

Murray-Darling Rainfall Totals (mm) Week Ending 15th July 2015
Australian Bureau of Meteorology



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

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Map 1 – Murray-Darling Basin rainfall week ending 15th July 2015 (Source: Bureau of Meteorology)

Streamflow responses along the upper Murray tributaries were relatively modest, although welcome following a period of quite low flows during recent weeks. On the Mitta Mitta River, the flow at Hinnomunjie Bridge increased from 500 to a peak of 2,800 ML/day. On the upper Murray, the flow at Biggara increased from 500 to 2,000 ML/day. On the Ovens River, the flow at Rocky Point increased from 500 to 2,900 ML/day with higher flows possible over the next day or two.



River Operations

- Rain and snow falls over the eastern ranges;
- Lake Mulwala level starting to rise;
- Work to reinstate Mildura Weir commenced following maintenance period.

MDBA total storage increased by 32 GL this week. The active storage is now 4,086 GL (48% capacity).

The storage volume in **Dartmouth** Reservoir decreased by 8 GL to 2,790 GL (72% capacity). The release from Dartmouth Reservoir remained at 3,500 ML/day throughout the week as bulk transfers continued from Dartmouth to Hume Reservoir. Slightly lower releases are planned for later in the coming week. However at this stage it is expected that higher rates of release for bulk transfer requirements to Hume will be undertaken in late July unless there is significant rain and inflows during the second half of the month.

Hume storage volume gained 36 GL this week and is now 1,038 GL (35% capacity). Inflows increased during the week with rates in excess of 10,000 ML/day over the last two days. The release from Hume is currently 5,500 ML/day and includes 4,900 ML/day of environmental water. (For more information, see the [Commonwealth Environmental Water Office](#) website.)

The level in **Lake Mulwala** increased slightly this week and is currently 121.51 m AHD or 3.19 m below the normal operating level (124.7 m AHD) due to the on-going draw down. A continued re-filling of the pool is planned for the coming week as higher tributary inflows arrive and the level is expected to rise to between 122 and 123 m AHD in one week's time, depending on inflows from the Kiewa and Ovens Rivers. It is anticipated that lake levels will be targeting around 124.7 m AHD by early August, ready for the irrigation season. The current release from **Yarrowonga Weir** is 6,200 ML/day and a release around 7,000 ML/day is expected in the coming days.

On the **Edward-Wakool** system, there is a combined flow of around 1,250 ML/day through the Edward River and Gulpa offtakes. The gates at these offtakes remain clear of the water. At Stevens Weir, the release has receded to 1,200 ML/day, and is expected to remain fairly steady during the days ahead. Downstream on the Edward River at Liewah, the flow has increased to 1,450 ML/day and is expected to peak above 1,500 ML/day later this week.

On the **Goulburn** River, the delivery of a winter pulse of environmental water from Eildon Reservoir has been completed and the flow at McCoys Bridge has receded to 670 ML/day.

At **Torrumbarry** Weir, about 450 ML/day of environmental water continues to be diverted into National Channel to maintain winter base flows through Gunbower Creek. Downstream of the weir, the flow is fairly steady at just under 5,000 ML/day.

On the **Murrumbidgee** River, the flow at Balranald peaked at just under 2,000 ML/day on 9 July in response to rainfall in the upper Murrumbidgee catchment back in mid-June. The flow has now receded to around 1,000 ML/day and will continue decreasing slowly in the next few days.

At **Euston** Weir, the pool level remains around 20 cm above Full Supply Level (FSL) at 47.80 m AHD. The flow downstream peaked at 10,800 ML/day on 12 July and will recede steadily over the coming week.

Work to re-instate **Mildura Weir** has now commenced. As the trestles are being re-instated, the weir pool will be filled in stages to allow for monitoring of the new trestles and is expected to be at FSL by late July. The flow downstream of Mildura Weir will fluctuate during the staged refilling. The lock at Mildura Weir will remain closed for refurbishment until mid-September 2015.

The salinity at **Mildura** has been measured at around 170 EC during the past week. Salinity levels are expected to decrease to levels closer to those recorded upstream at Colignan (currently around 70-80 EC) once the weir is re-instated and the weir pool refilled. For more [salinity forecasts](#), see the MDBA website.



Storage in the **Menindee Lakes** increased by 3 GL to 90 GL (5% capacity) as small inflows continue from the Darling River upstream. The flow downstream at Weir 32 remains negligible.

The flow across the **South Australian** border was held at around 9,200 ML/day for much of the past week with the arrival of the peak of the environmental water originating from the winter pulse in the Goulburn River. An incremental decrease in the flow is planned for the remainder of July, with the flow rate dropping to between 6,000 and 7,000 ML/day prior to the beginning of August.

At the **Lower Lakes**, higher inflows and local rain combined with barrage closures to raise the level of Lake Alexandrina to 0.72 m AHD (3 cm below FSL). Barrage gates currently remain closed due to wind, swell and tide conditions. However, once conditions abate, higher releases will be made through Goolwa and Tauwicheere barrages with the aim of holding the lakes close to the current level during the remainder of July and providing further flows into the Coorong.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 15 Jul 2015

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	468.12	2 790	72%	71	2 719	-8
Hume Reservoir	192.00	3 005	179.17	1 038	35%	23	1 015	+36
Lake Victoria	27.00	677	25.04	452	67%	100	352	+1
Menindee Lakes		1 731*		90	5%	(-) #	0	+3
Total		9 269		4 370	47%	--	4 086	+32
Total Active MDBA Storage							48% ^	

Major State Storages

Burrinjuck Reservoir	1 026	507	49%	3	504	+13
Blowering Reservoir	1 631	558	34%	24	534	+29
Eildon Reservoir	3 334	1 871	56%	100	1 771	+13

* 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 14 Jul 2015

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2015
Lake Eucumbene - Total	2 128	n/a	Snowy-Murray	+14	96
Snowy-Murray Component	1 061	n/a	Tooma-Tumut	+3	38
Target Storage	1 170		Net Diversions	10	57
			Murray 1 Release	+14	141

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)	0.0	0	Yarrowonga Main Channel (net)	0	0
Wakool Sys Allowance	-0.2	0	Torrumbarry System + Nyah (net)	0	0
Western Murray Irrigation	0.0	0	Sunraysia Pumped Districts	0.2	0
Licensed Pumps	0.1	0	Licensed pumps - GMW (Nyah+u/s)	0	0
Lower Darling	0.1	0	Licensed pumps - LMW	0.9	2
TOTAL	0.0	0	TOTAL	1.1	2

* 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 delivery of additional environmental water.

Entitlement this month	108.5 *	
Flow this week	63.1	(9 000 ML/day)
Flow so far this month	120.6	
Flow last month	114.4	

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

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	70	110	80
Euston	-	-	100
Red Cliffs	160	160	130
Merbein	170	170	130
Burtundy (Darling)	900	910	830
Lock 9	190	220	140
Lake Victoria	170	190	200
Berri	250	270	230
Waikerie	300	310	290
Morgan	320	320	280
Mannum	330	320	320
Murray Bridge	350	350	350
Milang (Lake Alex.)	760	760	750
Poltalloch (Lake Alex.)	590	520	640
Meningie (Lake Alb.)	2 100	2 160	2 400
Goolwa Barrages	4 020	2 630	1 630



River Levels and Flows

Week ending Wednesday 15 Jul 2015

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	-	-	-	3 230	F	2 460	1 650
Jingellic	4.0	2.05	208.57	7 050	R	4 910	2 990
Tallandoon (Mitta Mitta River)	4.2	2.39	219.28	3 850	R	3 790	3 970
Heywoods	5.5	2.22	155.85	5 500	R	4 470	3 610
Doctors Point	5.5	2.29	150.76	6 730	R	5 570	4 400
Albury	4.3	1.34	148.78	-	-	-	-
Corowa	4.6	1.74	127.76	6 420	R	5 010	4 380
Yarrowonga Weir (d/s)	6.4	1.14	116.18	6 160	R	5 270	5 230
Tocumwal	6.4	1.56	105.40	5 450	R	5 280	5 750
Torrumbarry Weir (d/s)	7.3	1.72	80.27	4 970	R	5 090	7 060
Swan Hill	4.5	1.10	64.02	5 310	F	6 180	8 250
Wakool Junction	8.8	2.97	52.09	7 780	F	8 410	9 770
Euston Weir (d/s)	9.1	1.88	43.72	10 160	F	10 570	10 450
Mildura Weir (d/s)	-	-	-	10 530	F	10 370	9 750
Wentworth Weir (d/s)	7.3	3.14	27.90	10 840	S	10 650	9 260
Rufus Junction	-	3.73	20.66	7 980	F	8 660	7 380
Blanchetown (Lock 1 d/s)	-	0.99	-	9 230	F	8 720	6 270
Tributaries							
Kiewa at Bandiana	2.8	1.64	154.87	1 500	F	1 260	940
Ovens at Wangaratta	11.9	9.03	146.71	3 400	R	1 870	890
Goulburn at McCoys Bridge	9.0	1.32	92.74	670	S	800	1 660
Edward at Stevens Weir (d/s)	5.5	1.40	81.17	1 190	F	1 240	1 420
Edward at Liewah	-	2.12	57.50	1 460	R	1 170	900
Wakool at Stoney Crossing	-	1.37	54.86	340	R	290	240
Murrumbidgee at Balranald	5.0	1.43	57.39	1 040	F	1 490	1 010
Barwon at Mungindi	6.1	3.35	-	410	F	470	560
Darling at Bourke	9.0	4.13	-	500	F	620	830
Darling at Burtundy Rocks	-	0.98	-	0	F	0	0

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	6 700	4 090
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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	-3.39	-	No. 7 Rufus River	22.10	+0.04	+1.43
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.04	+0.22
No. 15 Euston	47.60	+0.20	-	No. 5 Renmark	16.30	+0.04	+0.37
No. 11 Mildura	34.40	N/A	+0.30	No. 4 Bookpurnong	13.20	+0.09	+1.12
No. 10 Wentworth	30.80	+0.02	+0.50	No. 3 Overland Corner	9.80	+0.04	+0.38
No. 9 Kulnine	27.40	-0.01	+0.11	No. 2 Waikerie	6.10	+0.02	+0.36
No. 8 Wangumma	24.60	+0.02	+0.27	No. 1 Blanchetown	3.20	-0.06	+0.24

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.72
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Barrages

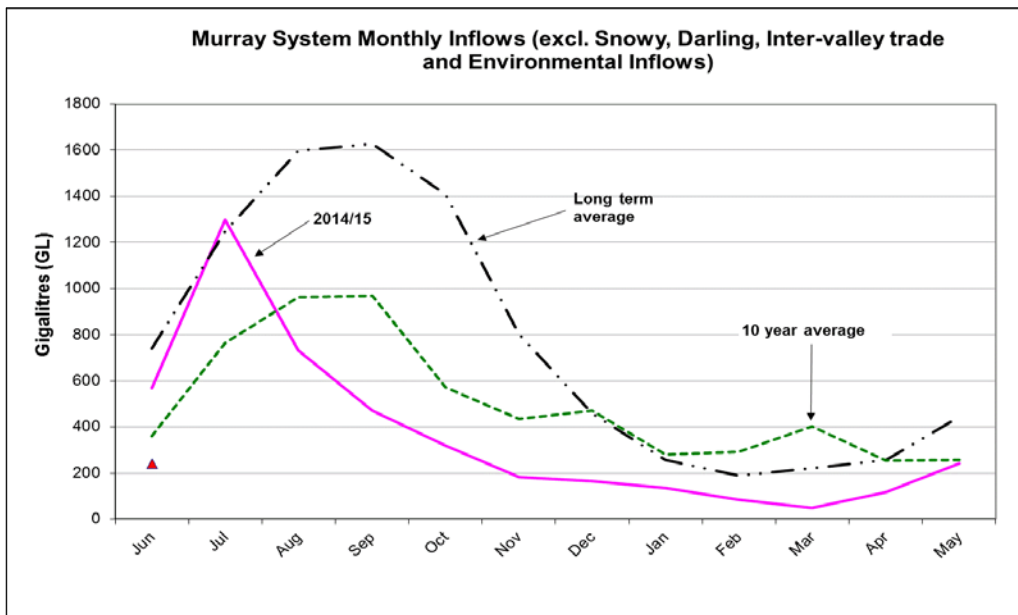
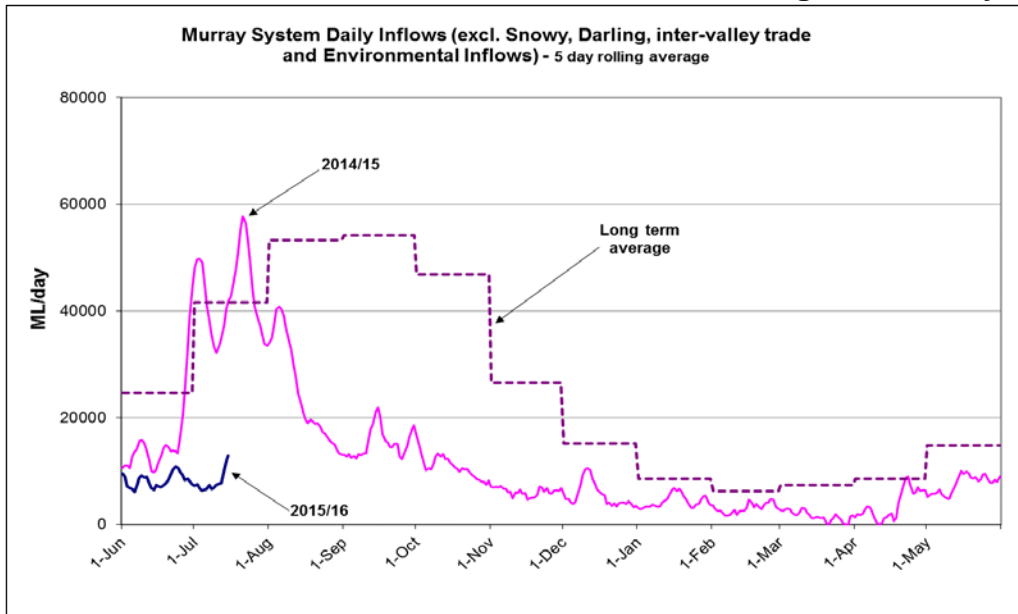
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.77	All closed	-	Open
Mundoo	26 openings	0.73	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	0.75	All closed	Open	Open

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



Week ending Wednesday 15 Jul 2015



State Allocations (as at 15 Jul 2015)

NSW - Murray Valley

High security	80%
General security	0%

Victorian - Murray Valley

High reliability	37%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	12%

Victorian - Goulburn Valley

High reliability	45%
Low reliability	0%

NSW - Lower Darling

High security	20%
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.nvrm.net.au/allocations/current.aspx>
 SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>