



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 25TH MARCH 2015

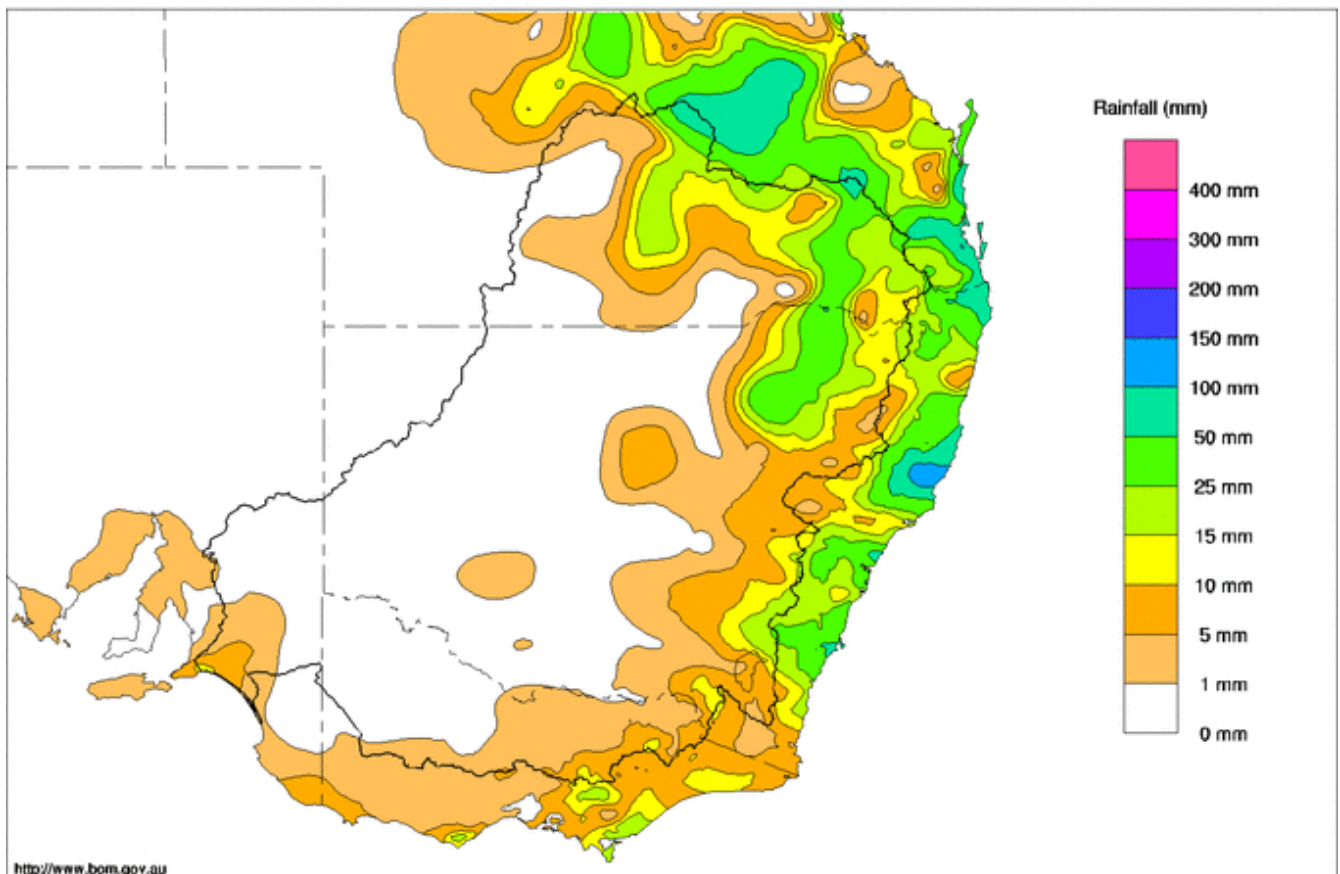
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Rainfall and Inflows

There was contrasting weather across the Murray-Darling Basin this week, although temperatures remained warm in most areas and generally dry conditions continued through central, western and southern areas. Conditions in the east and north-east were wetter, with showers and storms bringing some rainfall along the NSW ranges and to south-east Queensland with the passage of two trough systems (Map 1).

The rain across the east was also quite patchy meaning some areas recorded worthwhile rain, while other locations missed out. Notable totals in NSW included 56 mm at Narrabri Airport and 39 mm at Coonabarabran. In Queensland, the highest weekly totals included 78 mm at Jandowae, 58 mm at Clifton, 52 mm at Wallangarra and 46 mm at Possum Park.

Murray-Darling Rainfall Totals (mm) Week Ending 25th March 2015
Australian Bureau of Meteorology



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Map 1 - Murray Darling Basin rainfall week ending 25th March 2015 (Source: Bureau of Meteorology) Issued: 25/03/2015

Small amounts of rain over the upper Murray catchments had little impact on flows, with most gauges remaining close to the relatively low levels of one week ago. For example, on the River Murray at Biggara, the flow varied between 230 and 260 ML/day, while on the Mitta Mitta River, the flow at Hinnomunjie Bridge varied between 150 and 180 ML/day. On the Ovens River, the flow at Wangaratta has averaged just over 200 ML/day and is being sustained mostly by releases from Lake Buffalo.



River Operations

- Hot, dry conditions continue;
- Easter river levels forecast to remain similar to previous months;
- Transfers from Dartmouth recommence

Easter flows

Many readers have a keen interest for the expected river levels over Easter. Below is a brief explanation of the differences between this year and last year as it is likely to be a topical conversation at campsites along the Murray over Easter.

This year

The flow in the Murray at Easter from Hume down to South Australia will be comparable to the high regulated releases that have been observed over summer, see the MDBA website for the latest [media release](#). Dry conditions have persisted into autumn and high demands have continued. These demands can only be met from Hume Reservoir as no water is available from the Menindee Lakes. All the “taps” available to operations below Yarrowonga Weir are currently turned on to meet demands in the system. Many channels in the River Murray system are running at close to channel capacity as a result.

Last year

The major driver of River Murray System operations at Easter last year, was the widespread soaking rain over the Murray in mid-April. In response to that rainfall, irrigation diversions fell to virtually nil and without the orders from entitlement holders, releases from Dartmouth Dam, Hume Dam and Yarrowonga Weir were reduced toward minimum flows to conserve water for entitlement holders for the 2014-15 water year.

Operations this week

MDBA total storage decreased by 132 GL this week, with the active storage now 3,802 GL (45% capacity).

Dartmouth Reservoir storage decreased by 10 GL to 3,019 GL (78% capacity). Transfers from Dartmouth, measured at the Colemans gauge, have recommenced at 3,500 ML/day and forecast to continue at this flow until after Easter.

At **Hume** Reservoir the storage volume fell by 99 GL to 785 GL (26% capacity). Despite transfers from Dartmouth, Hume reservoir is forecast to fall below 20% by mid-April if conditions remain dry.

At **Yarrowonga** Weir, the total diversion through the major irrigation offtakes has continued at relatively high levels with Mulwala Canal diverting an average of 5,300 ML/day and Yarrowonga Main Channel 1,800 ML/day. The release downstream of Yarrowonga Weir continues at channel capacity. MDBA continues to use the major irrigation offtakes to bypass the choke and increase the flow to the lower Murray. From the Mulwala Canal:

- the Edward escape is running at capacity of 2,000 ML/day, with the difference between Wakool Main irrigation orders and 2,000 ML/day passing downstream as MDBA orders;
- the Wakool escape is targeting 300 ML/day; and
- the Perricoota escape is targeting 75 ML/day.

From the Yarrowonga Main Channel, the target flow through the Yarrowonga escape is 150 ML/day. This flow is being augmented by 150 ML/day of environmental water from the Goulburn River resulting in flows in the **Broken Creek** of around 300 ML/day at Rices Weir.

On the **Edward River** system, The Edward Offtake and Gulpa offtakes are passing flows of channel capacity for regulated flows. At Stevens Weir, the flow downstream continues at close to channel capacity, averaging 2,600 ML/day for the week. Downstream on the **Wakool River**, the flow at Wakool-Barham Road is 190 ML/day and will increase over the next week to around 500 ML/day due to the addition of water through the Wakool escape. This flow is close to the regulated channel capacity in this part of the river.



On the **Goulburn River**, flow at McCoys Bridge peaked at 3,900 ML/day on Sunday due to a pulse primarily made up of Inter Valley Transfer (IVT) water which has been traded from the Goulburn to the Murray system. Downstream at **Torrumbarry Weir**, diversions at National Channel are 3,200 ML/day this week and are expected to continue at around this rate over the coming week. The downstream flow at Torrumbarry is currently about 7,500 ML/day and is expected to recede as the Goulburn pulse moves downstream. The flow at **Swan Hill** will peak at around 6,700 ML/day over the weekend and in the lower **Murrumbidgee River**, IVT water is being delivered at Balranald with a target of 900 ML/day.

Euston Weir has been lowered to 20cm below full supply level to assist in meeting flows across the South Australian border while the Lake Victoria outlet works constrain our ability to supplement flows in the Murray. At this current level a number of boats have been stranded on the 'cut', a natural elevated cutting through a bend in the Murray that is inundated by the weir pool. The weir pool will be raised slightly next week to allow boat owners to move their vessels before the pool is lowered again. The weir pool is likely to remain lowered for some time, unless there is some rainfall in the mid-Murray to assist in reducing demands to refill the weir pool.

Lock 9 is currently 0.1m below full supply level, as part of a weir pool manipulation program to provide benefit to riparian vegetation, and will be raised back to full supply level (FSL) in April. **Lock 8** is currently lowered 0.6m below full supply level and was to be raised to 0.25 cm below FSL in April. This refilling has been postponed in the interim, while dry conditions persist, so that current demands can be met.

At **Lake Victoria**, the storage volume fell 19 GL to 192 GL (28% capacity) this week. At **Menindee Lakes** (currently managed by NSW), the storage volume decreased by 4 GL to 89 GL (5% capacity). Weir 32 releases have averaged 170 ML/day over the last week.

At the **Lower Lakes**, higher swells and tides during the week forced the temporary closure of barrage gates at Tauwitchere to avoid reverse flows of seawater. Despite the closures, barrage releases averaged around 1,800 ML/day over the week. High swells and tides are forecast again this week which is likely to see closure of the barrages at affected times. The 5-day average level in Lake Alexandrina has decreased to 0.51 m AHD.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
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Water in Storage

Week ending Wednesday 25 Mar 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	472.27	3 019	78%	71	2 948	-10
Hume Reservoir	192.00	3 005	176.73	785	26%	23	762	-99
Lake Victoria	27.00	677	22.40	192	28%	100	92	-19
Menindee Lakes		1 731*		89	5%	(-) #	0	-4
Total		9 269		4 085	44%	--	3 802	-132
Total Active MDBA Storage							45% ^	

Major State Storages

Burrinjuck Reservoir	1 026	333	32%	3	330	+0
Blowering Reservoir	1 631	474	29%	24	450	-35
Eildon Reservoir	3 334	2 026	61%	100	1 926	-57

* 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 24 Mar 2015

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2014
Lake Eucumbene - Total	2 217	n/a	Snowy-Murray	+22	343
Snowy-Murray Component	1 033	n/a	Tooma-Tumut	+1	210
Target Storage	1 410		Net Diversions	21	133
			Murray 1 Release	+24	615

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2014	Victoria	This Week	From 1 July 2014
Murray Irrig. Ltd (Net)	25.5	764	Yarrowonga Main Channel (net)	11.2	259
Wakool Sys Allowance	3.2	65	Torrumbarry System + Nyah (net)	0.1	527
Western Murray Irrigation	0.3	22	Sunraysia Pumped Districts	1.9	98
Licensed Pumps	8.6	236	Licensed pumps - GMW (Nyah+u/s)	2.3	57
Lower Darling	0.1	60	Licensed pumps - LMW	4.3	262
TOTAL	37.7	1147	TOTAL	19.8	1203

* 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	186.0 *	
Flow this week	45.1	(6 400 ML/day)
Flow so far this month	213.3	
Flow last month	261.5	

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

	Current	Average over the last week	Average since 1 August 2014
Swan Hill	70	60	90
Euston	80	80	100
Red Cliffs	110	110	120
Merbein	120	110	130
Burtundy (Darling)	880	840	760
Lock 9	110	110	140
Lake Victoria	240	240	210
Berri	230	220	220
Waikerie	250	260	280
Morgan	270	270	280
Mannum	280	280	330
Murray Bridge	300	300	360
Milang (Lake Alex.)	820	810	770
Poltalloch (Lake Alex.)	700	690	620
Meningie (Lake Alb.)	2 510	2 480	2 410
Goolwa Barrages	2 980	2 220	1 190



River Levels and Flows

Week ending Wednesday 25 Mar 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	-	-	-	4 350	F	3 540	2 300
Jingellic	4.0	1.73	208.25	4 490	R	3 610	2 800
Tallandoon (Mitta Mitta River)	4.2	2.27	219.16	3 300	R	1 170	720
Heywoods	5.5	3.58	157.21	18 630	R	16 970	18 570
Doctors Point	5.5	3.40	151.87	19 700	R	17 640	19 290
Albury	4.3	2.48	149.92	-	-	-	-
Corowa	4.6	3.33	129.35	16 460	R	17 240	18 330
Yarrowonga Weir (d/s)	6.4	1.63	116.67	9 890	S	9 910	9 880
Tocumwal	6.4	2.25	106.09	10 040	S	10 050	9 960
Torrumbarry Weir (d/s)	7.3	2.55	81.10	7 590	R	6 530	5 090
Swan Hill	4.5	1.15	64.07	5 720	R	4 930	5 170
Wakool Junction	8.8	2.62	51.74	6 370	R	6 320	6 870
Euston Weir (d/s)	8.8	1.32	43.16	6 320	R	6 390	6 690
Mildura Weir (d/s)	-	-	-	6 210	F	5 890	6 560
Wentworth Weir (d/s)	7.3	2.80	27.56	6 110	R	5 850	6 700
Rufus Junction	-	3.30	20.23	5 330	R	5 720	7 710
Blanchetown (Lock 1 d/s)	-	0.52	-	4 010	R	4 210	7 150
Tributaries							
Kiewa at Bandiana	2.7	0.70	153.93	170	S	200	190
Ovens at Wangaratta	11.9	7.78	145.46	230	S	220	170
Goulburn at McCoys Bridge	9.0	2.77	94.19	3 390	F	3 530	1 290
Edward at Stevens Weir (d/s)	-	2.23	82.00	2 350	F	2 610	2 580
Edward at Liewah	-	2.67	58.05	2 120	S	2 080	2 050
Wakool at Stoney Crossing	-	1.30	54.79	230	F	260	280
Murrumbidgee at Balranald	5.0	1.22	57.18	820	R	810	290
Barwon at Mungindi	-	3.16	-	50	F	60	80
Darling at Bourke	-	4.00	-	70	S	100	320
Darling at Burtundy Rocks	-	0.62	-	0	F	0	0

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	470	310
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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	-0.12	-	No. 7 Rufus River	22.10	+0.00	+0.98
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.00	+0.06
No. 15 Euston	47.60	-0.21	-	No. 5 Renmark	16.30	+0.03	+0.20
No. 11 Mildura	34.40	+0.01	+0.17	No. 4 Bookpurnong	13.20	+0.05	+0.66
No. 10 Wentworth	30.80	+0.09	+0.16	No. 3 Overland Corner	9.80	+0.01	+0.16
No. 9 Kulnine	27.40	-0.08	-0.55	No. 2 Waikerie	6.10	+0.03	+0.06
No. 8 Wangumma	24.60	-0.59	+0.08	No. 1 Blanchetown	3.20	-0.05	-0.24

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.52
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Barrages

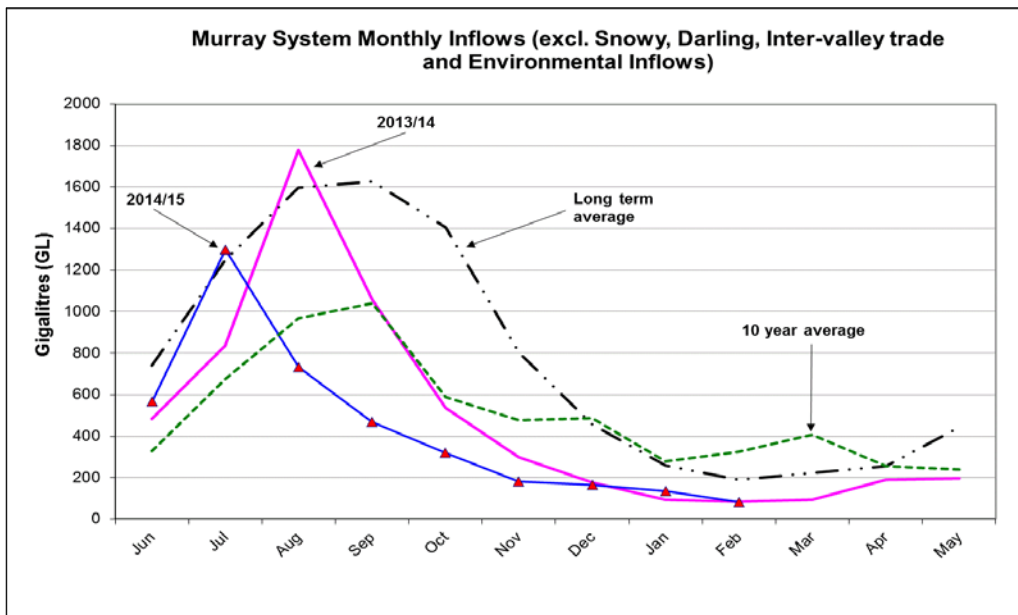
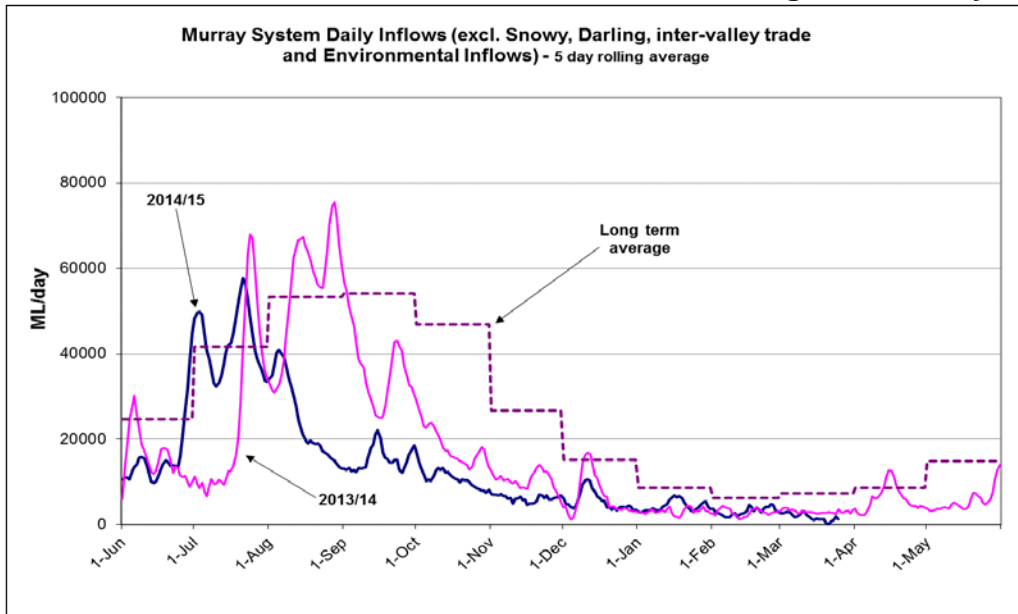
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.51	All closed	-	Open
Mundoo	26 openings	0.50	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwitchere	322 gates	0.51	20	Open	Open

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



Week ending Wednesday 25 Mar 2015



State Allocations (as at 25 Mar 2015)

NSW - Murray Valley

High security	97%
General security	61%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	51%

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