



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 23 APRIL 2014

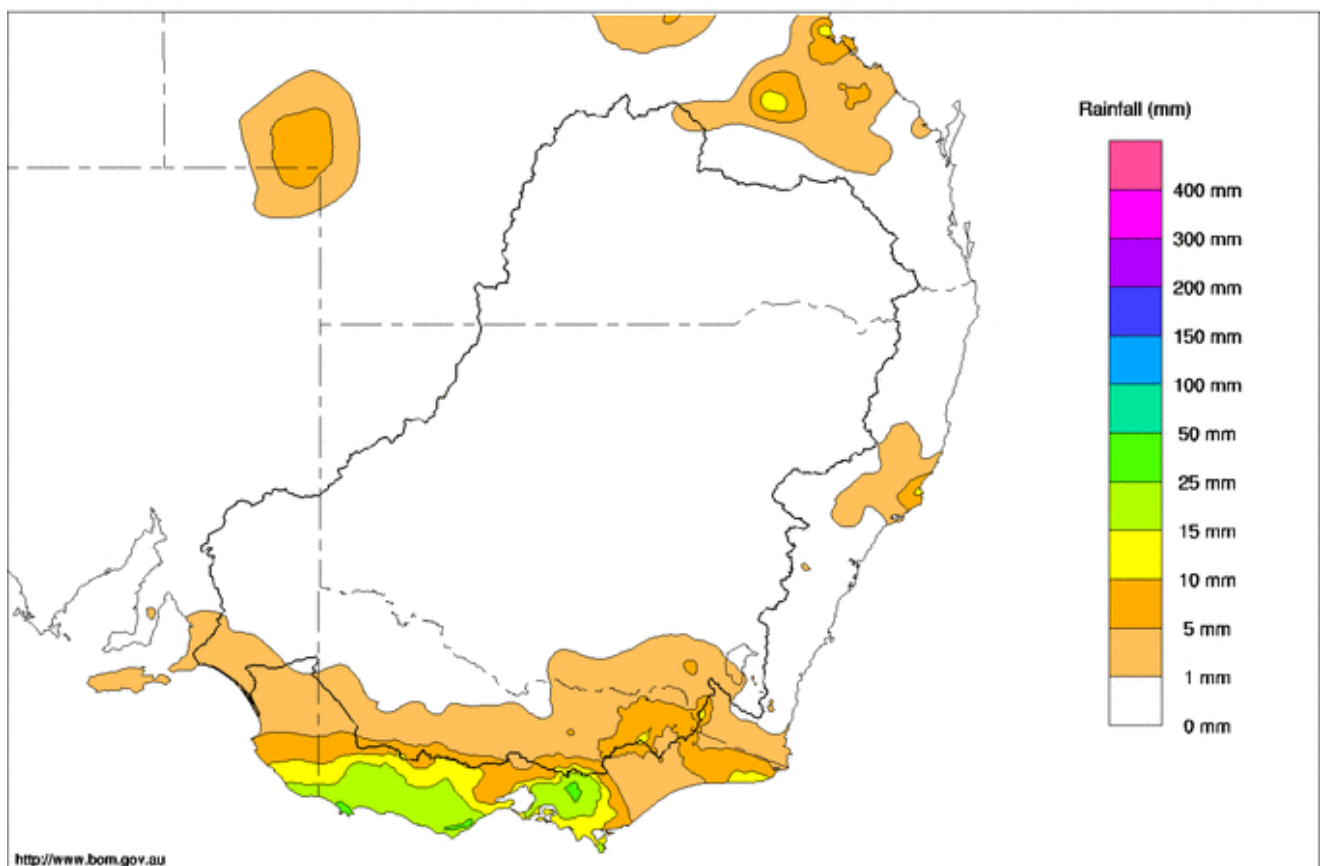
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Rainfall and Inflows

High pressure systems brought warm, dry conditions across the majority of the Murray-Darling Basin while cold fronts moving across the Great Australian Bight brought light rain of up to 10 mm in the southern ranges (Map 1).

Murray-Darling Rainfall Totals (mm) Week Ending 23rd April 2014

Product of the National Climate Centre



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

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Map 1 - Murray-Darling Basin rainfall for the week ending 23 April 2014 (Source: Bureau of Meteorology).

Stream flows in the upper Murray system tributaries have, predictably, remained steady or receded, in the absence of rain. The flow in the Mitta Mitta at Hinnomunjie is around 230 ML/day while the flow in the upper Murray at Jingellic has decreased from 2,300 ML/day last week to around 1,500 ML/day. On the Ovens River, Lake Buffalo has started releasing water which has increased the flow at Rocky point to over 500 ML/day. Releases will continue over the coming week and are likely to increase the flow downstream at Peechelba to above 700 ML/day over the weekend.

River Operations

The major driver of River Murray System operations last week, and again this week, was the reduced irrigation demand following the widespread soaking rain over the Murray in mid-April. In response to that rainfall, and irrigation diversions falling to virtually nil, releases from Dartmouth Dam, Hume Dam and Yarrawonga Weir were reduced towards minimum flows.



This resulted in significant falls in river levels at many locations over the Easter period as advised in last week's Weekly Report and media releases issued by MDBA. Irrigators have been able to conserve water to use next year, which may be particularly valuable given that the Bureau of Meteorology is now advising that an El Niño is likely in 2014 (<http://www.bom.gov.au/climate/enso/>).

The effects of the cuts in releases are progressively moving downstream where, for example, river levels at Swan Hill can be expected to fall towards minimum levels in early May. However, there is further rain forecast early next week which may influence river operations over the coming weeks. While less water is required downstream, releases from upstream storages will continue to be close to minimums to conserve water for the 2014-15 season.

Total storage increased by a further 2 GL this week. Dartmouth storage volume decreased by 1 GL and is currently 89% capacity. Release from Dartmouth is currently at the minimum of 200 ML/day measured at Colemans. Hume storage volume increased by 11 GL this week to 38% capacity and releases are targeting the minimum of 1,200 ML/day at Doctors Point.

The Lake Mulwala pool has been close to full supply level over the last 12 days because of reduced irrigation diversions and the reduction in releases from Yarrowonga Weir. The major irrigation offtakes have diverted small amounts this week through Mulwala Canal and Yarrowonga Main Channel totalling 4.5 and 1 GL respectively.

Next week, Mulwala Canal orders are forecast to increase due to increased irrigation demand and the addition of the Edward system flow requirements being diverted through the Canal. Releases from Yarrowonga Weir are also expected to increase to around 2,500 ML/day in response to an increase in the order at National Channel from 1,000 to 1,800 ML/day. The level in Lake Mulwala will decrease as a result and is expected to reach around 124.7m AHD this coming weekend. If dry conditions persist, Lake Mulwala may fall below 124.6 m AHD in coming weeks to help meet minimum flow targets in the Murray, particularly at Swan Hill.

On the Edward River system, all gates at the Edward and Gulpa regulators are open but diversions have fallen to 250 and 90 ML/day respectively, due to the low river levels at in the Murray at Picnic Point. Flow in the Edward River will be supplemented by releases from the Edward Escape over the coming week.

On the Goulburn River, the flow at McCoys Bridge has fallen to around 1,000 ML/day. Inflows from the Goulburn have kept river levels higher in the River Murray as the Yarrowonga releases have been reduced. The flow at McCoys Bridge is expected to remain steady at around 950 ML/day over the coming week as environmental deliveries continue.

On the Murray at Torrumbarry, the flow receded this week from around 8,000 to below 4,000 ML/day and is expected to continue falling next week if conditions remain dry. At Swan Hill flows peaked at 8,100 ML/day on Sunday from the rain event in mid-April and have since reduced to 7,000 ML/day. Flows are expected to recede to below 3,000 ML/day over the coming week and if conditions remain dry it is possible that the level at Swan Hill could fall below 0.6 m height in two weeks' time. To help maintain the flow at Swan Hill, it is possible that water stored in Torrumbarry Weir will be released, gradually reducing the pool level by up to 40 cm below full supply from the start of May.

At Euston, the flow is expected to peak at around 9,200 ML/day this Friday before receding. The flow at Wentworth is rising and is expected to peak at around 8,800 ML/day next Tuesday.

On the Darling River, the flow at Bourke has risen to 2,390 ML/day this week and is likely to increase to peak at 2,500 ML/day in a couple of days. Menindee Lakes is currently at 22% storage capacity having decreased by 4 GL this week and the flow at Weir 32 is approximately 300 ML/day.



Lake Victoria fell by around 2 GL this week and is currently at 60% capacity. The average flow across the South Australian border was 6,500 ML/day last week and is expected to average 5,000 ML/day over the coming week. At the Lower Lakes the 5 day average level for Lake Alexandrina is 0.63 m AHD and the release through the barrages is approximately 2,000 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 23 Apr 2014

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	479.18	3 424	89%	71	3 353	-1
Hume Reservoir	192.00	3 005	180.04	1 137	38%	23	1 114	+11
Lake Victoria	27.00	677	24.59	405	60%	100	305	-3
Menindee Lakes		1 731*		386	22%	(- -) #	0	-4
Total		9 269		5 352	58%	- -	4 772	+2
Total Active MDBA Storage							57% ^	

Major State Storages

Burrinjuck Reservoir	1 026	559	55%	3	556	+11
Blowering Reservoir	1 631	792	49%	24	768	-6
Eildon Reservoir	3 334	2 291	69%	100	2 191	-6

* 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 22 Apr 2014

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2013
Lake Eucumbene - Total	1 579	n/a	Snowy-Murray	+0	653
Snowy-Murray Component	752	n/a	Tooma-Tumut	+0	248
Target Storage	1 340		Net Diversion	0	406
			Murray 1 Release	+1	955

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)	4.5	1073	Yarrowonga Main Channel (net)	1	309
Wakool Sys Allowance	0.8	46	Torrumbarry System + Nyah (net)	1.3	505
Western Murray Irrigation	0.2	26	Sunraysia Pumped Districts	0.4	108
Licensed Pumps	1.5	233	Licensed pumps - GMW (Nyah+u/s)	0	169
Lower Darling	0.2	197	Licensed pumps - LMW	2	270
TOTAL	7.2	1575	TOTAL	4.7	1361

* 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	135.0 *
Flow this week	45.5
Flow so far this month	148.3
Flow last month	222.7

(6 500 ML/day)

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

	Current	Average over the last week	Average since 1 August 2013
Swan Hill	90	110	90
Euston	130	100	100
Red Cliffs	120	130	120
Merbein	130	140	130
Burtundy (Darling)	560	510	500
Lock 9	170	180	180
Lake Victoria	230	230	250
Berri	280	290	270
Waikerie	320	320	330
Morgan	330	330	320
Mannum	490	480	350
Murray Bridge	460	450	360
Milang (Lake Alex.)	770	780	680
Poltalloch (Lake Alex.)	690	650	570
Meningie (Lake Alb.)	2 640	2 670	2 670
Goolwa Barrages	970	930	1 280



River Levels and Flows

Week ending Wednesday 23 Apr 2014

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	-	-	-	430	F	430	1 610
Jingellic	4.0	1.22	207.74	1 530	F	1 780	4 120
Tallandoon (Mitta Mitta River)	4.2	1.34	218.23	410	S	490	2 340
Heywoods	5.5	1.40	155.03	720	F	940	2 900
Doctors Point	5.5	1.43	149.90	1 100	F	1 630	4 030
Albury	4.3	0.63	148.07	-	-	-	-
Corowa	3.8	0.81	126.83	2 470	F	2 600	6 630
Yarrawonga Weir (d/s)	6.4	0.32	115.36	1 850	R	2 120	7 530
Tocumwal	6.4	0.99	104.83	2 370	F	3 400	7 820
Torrumbarry Weir (d/s)	7.3	1.34	79.89	3 420	F	6 250	6 730
Swan Hill	4.5	1.42	64.34	7 080	F	7 790	6 090
Wakool Junction	8.8	3.45	52.57	9 730	R	9 180	6 860
Euston Weir (d/s)	8.8	1.76	43.60	8 720	R	8 020	6 560
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	2.96	27.72	7 910	R	7 220	7 000
Rufus Junction	-	3.36	20.29	5 690	F	5 860	7 560
Blanchetown (Lock 1 d/s)	-	0.67	-	4 950	F	6 320	7 050
Tributaries							
Kiewa at Bandiana	2.7	0.86	154.09	360	F	530	650
Ovens at Wangaratta	11.9	7.97	145.65	550	R	570	970
Goulburn at McCoys Bridge	9.0	1.55	92.97	1 050	F	1 340	1 770
Edward at Stevens Weir (d/s)	-	0.62	80.39	390	F	960	1 040
Edward at Liewah	-	2.03	57.41	1 370	R	1 140	860
Wakool at Stoney Crossing	-	1.57	55.06	790	R	710	600
Murrumbidgee at Balranald	5.0	0.51	56.47	200	S	230	290
Barwon at Mungindi	-	3.24	-	180	F	300	790
Darling at Bourke	-	4.41	-	2 390	R	1 590	2 140
Darling at Burtundy Rocks	-	0.79	-	240	S	290	260

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	2 610	7 090
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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
Yarrawonga	124.90	-0.03	-	No. 7 Rufus River	22.10	-0.01	+1.06
No. 26 Torrumbarry	86.05	-0.01	-	No. 6 Murtho	19.25	+0.09	+0.17
No. 15 Euston	47.60	+0.06	-	No. 5 Renmark	16.30	+0.11	+0.22
No. 11 Mildura	34.40	+0.08	+0.22	No. 4 Bookpurnong	13.20	+0.10	+0.77
No. 10 Wentworth	30.80	+0.06	+0.32	No. 3 Overland Corner	9.80	+0.12	+0.46
No. 9 Kulnine	27.40	-0.01	-0.15	No. 2 Waikerie	6.10	+0.15	+0.31
No. 8 Wangumma	24.60	-0.22	+0.15	No. 1 Blanchetown	3.20	+0.14	-0.08

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.63
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Barrages

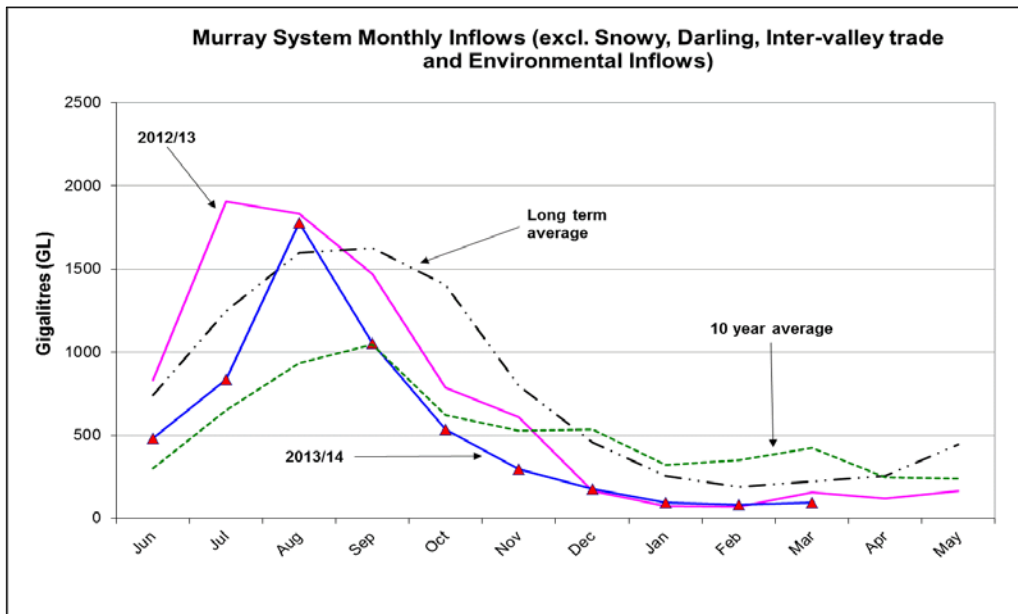
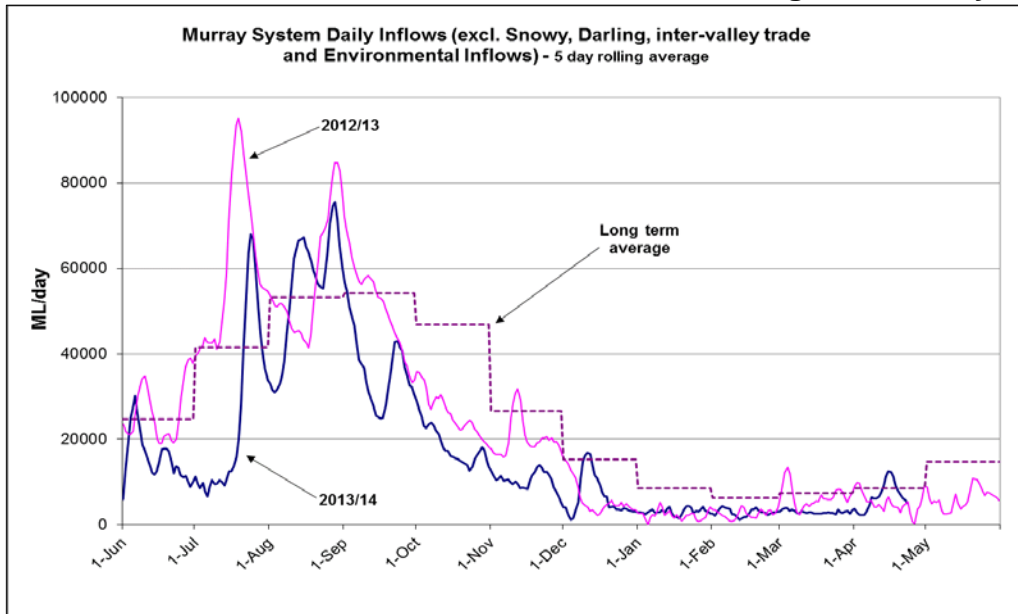
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.62	All closed	-	Open
Mundoo	26 openings	0.62	All closed	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.65	8	Open	Open

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



Week ending Wednesday 23 Apr 2014



State Allocations (as at 23 Apr 2014)

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	63%

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>