



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 17 JULY 2013

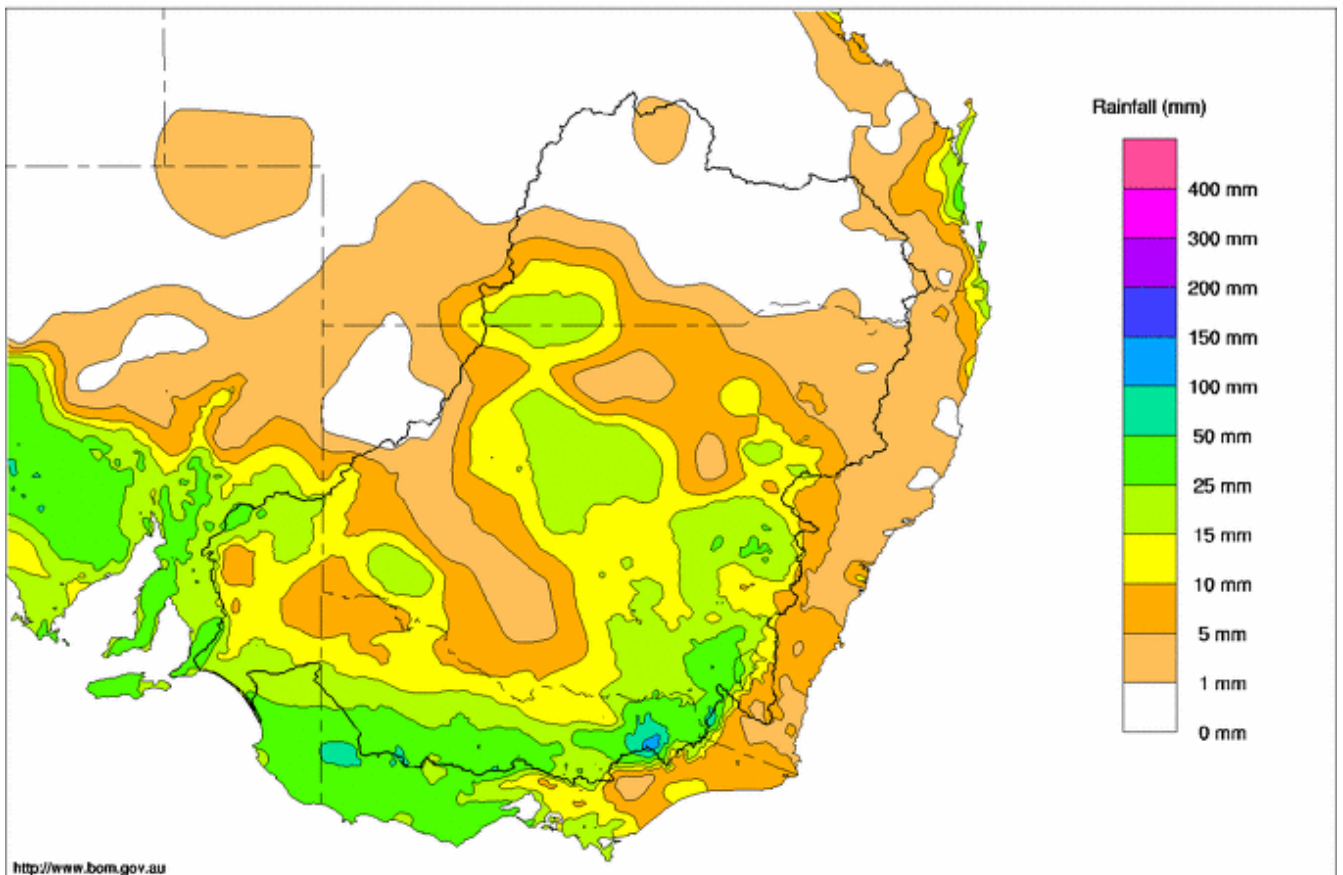
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Rainfall and Inflows

A northerly influence across the Murray-Darling Basin brought relatively mild weather this week, before a trough moved into the region over the weekend. The system brought rain to southern areas with the heaviest falls over Victoria's north-east ranges. There was much needed rain totalling above 25 mm across central and western parts of Victoria with lighter rain in the north of the state. Rain also fell over parts of South Australia, with patchier rain reported through inland NSW (Map 1). The Bureau of Meteorology is forecasting another low pressure system and cold front for the coming days with more significant rain expected.

The highest rainfall totals in north-eastern Victoria included 115 mm at Mt Buffalo, 103 mm at Mt Hotham, 103 mm at Rocky Valley, 93 mm at Harris Lane, 66 mm at Archerton and 60 mm at Harrietville. In central and western Victoria there was 103 mm at Mt William, 64 mm at Daylesford and 38 mm at Redesdale. Within the Basin in NSW, there were totals up to 100 mm in the Snowy Mountains, 55 mm at Batlow, 48 mm at Mt Ginini and 40 mm at Wellington; while South Australia recorded weekly totals up to about 25 mm around the Lower Lakes and eastern Mt Lofty Ranges.

Murray-Darling Rainfall Totals (mm) Week Ending 17th July 2013
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 17 July 2013 (Source: Bureau of Meteorology).



Streams responded well to the rain, with flows increasing across all the upper Murray tributaries. On the upper River Murray, the flow at Biggara increased from 900 to 1,600 ML/day; while downstream at Jingellic the flow increased to 12,600 ML/day – the highest flow at this gauge since mid-June. On the Mitta Mitta River, the flow at Hinnomunjie Bridge increased from 700 ML/day to a peak of 3,300 ML/day; while on the Kiewa River, the flow at Bandiana increased from 1,250 to 3,550 ML/day. On the Ovens River, the flow at Rocky Point has increased to 4,500 ML/day, which is the highest flow at this gauge since 3 June. Further flow increases are anticipated as a result of the rain forecast for the coming days.

River Operations

MDBA active storage increased by 107 GL this week to 6,880 GL (80% capacity).

At Dartmouth Reservoir, inflows peaked at about 5,500 ML/day during the week and the storage volume increased by 13 GL to 3,665 GL (95% capacity). Release from Dartmouth Reservoir, measured at Colemans, has remained at about 350 ML/day throughout the week.

Hume Reservoir's storage volume increased by 71 GL to 2,038 GL (68% capacity) and the release has continued targeting the normal winter minimum of 600 ML/day. The recent period of pulsed releases through the power station outlet (to assist works at the base of the spillway) has now concluded with water now being released again at constant rates through the valves. Downstream at Doctors Point, the flow has increased to 3,500 ML/day due to rising inflows from the Kiewa River following the rain.

At Yarrawonga Weir, the release has been increased to 4,200 ML/day to meet downstream demand and in response, the Lake Mulwala pool level has risen a little more slowly than anticipated. The level is currently 124.35 m AHD (35 cm below the normal operating level). Higher inflows are expected during the coming days and the pool level is likely to rise further over the coming week. The forecast higher inflows also mean that additional increases to the release may be required as early as this week.

The combined flow through the Edward River and Gulpa Creek offtakes decreased from around 420 to 310 ML/day this week. However, the flow is expected to increase again towards 400 ML/day during the next few days as higher flows arrive from Yarrawonga Weir. At Stevens Weir, the release downstream is currently 400 ML/day and the weir pool level has increased to 2.61 m on the local gauge. The pool level will continue to rise over the coming weeks in readiness for the coming irrigation season.

On the Goulburn River inflows to the Murray measured at McCoys Bridge have increased from around 600 to 700 ML/day, with a possibility of higher flows later in the coming week depending on rain and Goulburn River flow responses over the coming days. At Torrumbarry Weir, the Murray flow receded to 2,800 ML/day. The flow is currently steady, although higher flows are expected by the weekend.

On the Murrumbidgee River, the flow at Balranald has increased from 1,500 to 1,700 ML/day. Downstream on the Murray at Euston Weir, the pool level has risen slightly and is currently 46.98 m AHD (62 cm below FSL) with work continuing on the navigable pass. The release from Euston Weir continues to vary due to the maintenance work activity and is currently 6,000 ML/day.



At Mildura Weir, the process of re-instating the weir and refilling the pool is progressing well following the successful completion of essential maintenance works. The pool level is now less than a metre below FSL and the re-instatement process remains on track for completion by 23 July. Salinity at Mildura remains quite low (latest recording around 200 EC) and as such MDBA has returned to the usual weekly update of flow and salinity forecasts, which are available at: <http://www.mdba.gov.au/river-data/current-information-forecasts/flow-salinity-report>.

Total storage at the Menindee Lakes increased by 1 GL this week and is currently 1,254 GL (72% capacity). The release, measured at Weir 32, continues to target the seasonal minimum and is currently 260 ML/day. Downstream at Burtundy, the lower Darling River is now holding a fairly steady flow of about 450 ML/day.

At Wentworth Weir, the flow decreased from 8,200 to 5,700 ML/day due to lower releases from Mildura Weir while the weir pool refills. The flow at Wentworth may decrease slightly more in the coming week before increasing again.

Storage at Lake Victoria increased by 22 GL to 597 GL (88% capacity). With Lake Victoria now reaching quite a high level and upper Murray tributary inflows increasing, MDBA has announced the commencement of a period of *unregulated flows* to South Australia. 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 re-fill 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 into South Australia has been increased to 4,500 ML/day, which is 1,000 ML/day above the July entitlement rate. The MDBA will provide updates on unregulated flows in subsequent Weekly Reports.

At the Lower Lakes, the five-day average water level in Lake Alexandrina has risen to 0.63 m AHD, while the barrage release has remained fairly steady. There are currently 7 gates passing flow with an estimated release into the Coorong of just under 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 17 Jul 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	483.04	3 665	95%	71	3 594	+13
Hume Reservoir	192.00	3 005	186.64	2 038	68%	23	2 015	+71
Lake Victoria	27.00	677	26.33	597	88%	100	497	+22
Menindee Lakes		1 731*		1 254	72%	(480 #)	774	+1
Total		9 269		7 554	81%	--	6 880	+107
Total Active MDBA Storage							80% ^	

Major State Storages

Burrinjuck Reservoir	1 026	444	43%	3	441	+6
Blowering Reservoir	1 631	1 242	76%	24	1 218	+46
Eildon Reservoir	3 334	2 362	71%	100	2 262	+12

* 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 16 Jul 2013

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2013
Lake Eucumbene - Total	1 433	-50	Snowy-Murray	+39	369
Snowy-Murray Component	567	-23	Tooma-Tumut	+0	59
Target Storage	1 170		Net Diversion	39	311
			Murray 1 Release	+41	422

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)	0.0	0	Yarrowonga Main Channel (net)	0	0
Wakool Sys Allowance	-0.2	0	Torrumbarry System + Nyah (net)	1	2
Western Murray Irrigation	0.0	0	Sunraysia Pumped Districts	0.2	0
Licensed Pumps	0.4	1	Licensed pumps - GMW (Nyah+u/s)	1.1	1
Lower Darling	0.0	0	Licensed pumps - LMW	0.9	2
TOTAL	0.2	1	TOTAL	3.2	5

* 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 commencement of unregulated flows.

Entitlement this month	108.5
Flow this week	24.5
Flow so far this month	59.7
Flow last month	117.0

(3 500 ML/day)

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

	Current	Average over the last week	Average since 1 August 2012
Swan Hill	100	100	110
Euston	110	110	130
Red Cliffs	180	220	160
Merbein	240	260	170
Burtundy (Darling)	470	470	460
Lock 9	250	240	260
Lake Victoria	330	340	280
Berri	520	520	330
Waikerie	600	590	360
Morgan	590	590	370
Mannum	510	510	380
Murray Bridge	550	550	380
Milang (Lake Alex.)	590	650	460
Poltalloch (Lake Alex.)	560	570	400
Meningie (Lake Alb.)	2 810	2 850	3 430
Goolwa Barrages	1 200	1 170	1 560



River Levels and Flows

Week ending Wednesday 17 Jul 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	-	-	-	9 750	F	6 490	6 030
Jingellic	4.0	2.58	209.10	12 630	R	9 150	8 080
Tallandoon (Mitta Mitta River)	4.2	1.70	218.59	1 190	F	850	630
Heywoods	5.5	1.22	154.85	600	S	600	600
Doctors Point	5.5	1.90	150.37	3 550	R	1 840	1 400
Albury	4.3	0.96	148.40	-	-	-	-
Corowa	3.8	0.64	126.66	1 870	F	1 880	1 740
Yarrowonga Weir (d/s)	6.4	0.83	115.87	4 170	S	2 950	2 780
Tocumwal	6.4	1.27	105.11	3 720	R	2 810	3 680
Torrumbarry Weir (d/s)	7.3	1.18	79.73	2 840	S	2 950	4 230
Swan Hill	4.5	0.79	63.71	2 990	F	3 590	4 450
Wakool Junction	8.8	2.41	51.53	5 020	F	5 530	6 230
Euston Weir (d/s)	8.8	1.36	43.20	6 000	F	7 040	7 840
Mildura Weir (d/s)	-	-	-	-	-	-	-
Wentworth Weir (d/s)	7.3	3.00	27.76	5 660	F	6 650	8 340
Rufus Junction	-	2.79	19.72	2 780	F	2 880	2 900
Blanchetown (Lock 1 d/s)	-	0.55	-	2 550	S	2 510	2 530
Tributaries							
Kiewa at Bandiana	2.7	2.52	155.75	3 100	R	1 470	900
Ovens at Wangaratta	11.9	9.49	147.17	4 720	R	2 440	1 430
Goulburn at McCoys Bridge	9.0	1.34	92.76	680	R	640	600
Edward at Stevens Weir (d/s)	-	0.66	80.43	410	F	470	1 150
Edward at Liewah	-	2.07	57.45	1 410	F	1 520	1 690
Wakool at Stoney Crossing	-	1.31	54.80	250	S	250	250
Murrumbidgee at Balranald	5.0	2.16	58.12	1 720	R	1 550	1 340
Barwon at Mungindi	-	3.53	-	840	F	970	750
Darling at Bourke	-	4.23	-	970	F	880	550
Darling at Burtundy Rocks	-	-	-	450	F	460	430

Natural Inflow to Hume (i.e. Pre Dartmouth & Snowy Mountains scheme)	7 520	5 840
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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	-0.55	-	No. 7 Rufus River	22.10	+0.00	+0.48
No. 26 Torrumbarry	86.05	+0.01	-	No. 6 Murtho	19.25	+0.02	-0.04
No. 15 Euston	47.60	-0.62	-	No. 5 Renmark	16.30	-0.01	+0.09
No. 11 Mildura	34.40	-0.58	+0.14	No. 4 Bookpurnong	13.20	+0.03	+0.36
No. 10 Wentworth	30.80	+0.02	+0.36	No. 3 Overland Corner	9.80	+0.04	+0.18
No. 9 Kulnine	27.40	+0.18	+0.21	No. 2 Waikerie	6.10	+0.05	+0.12
No. 8 Wangumma	24.60	+0.23	-0.01	No. 1 Blanchetown	3.20	+0.04	-0.20

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

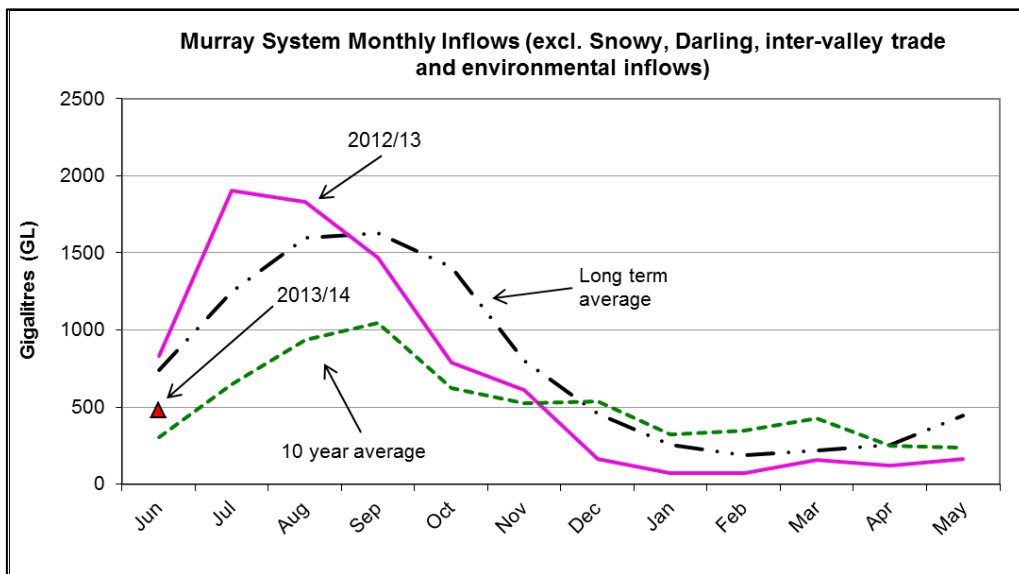
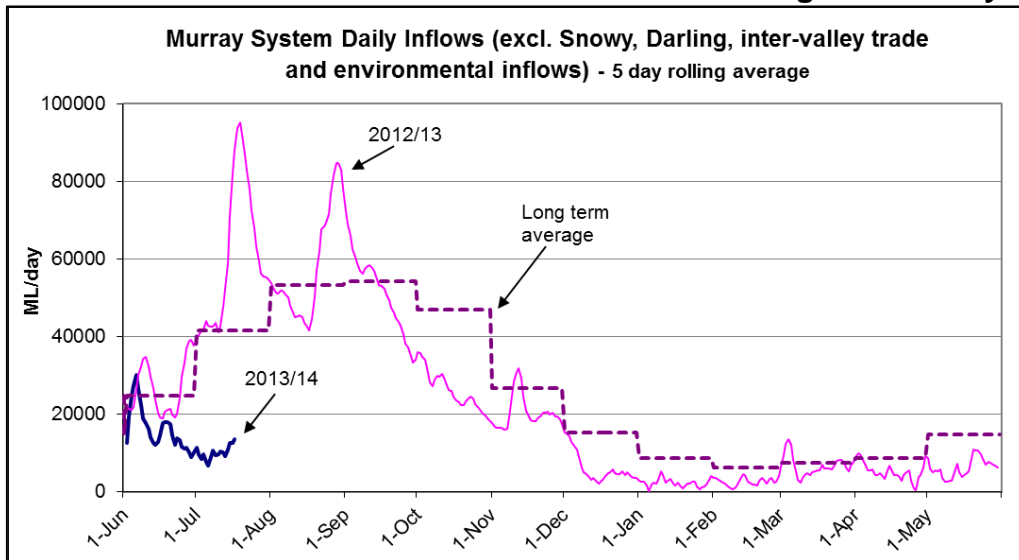
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.71	4	-	Open
Mundoo	26 openings	0.70	1	-	-
Boundary Creek	6 openings	-	0.1	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.76	2	Open	Open

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



Week ending Wednesday 17 Jul 2013



State Allocations (as at 17 Jul 2013)

NSW - Murray Valley

High security	97%
General security	38%

Victorian - Murray Valley

High reliability	42%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	18%

Victorian - Goulburn Valley

High reliability	51%
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/About-us/Media-releases/media/default.aspx>
 VIC : <http://www.g-mwater.com.au/water-resources/allocations/current.asp>
 SA : <http://www.waterforgood.sa.gov.au/category/news/>