



RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 13 JANUARY 2016

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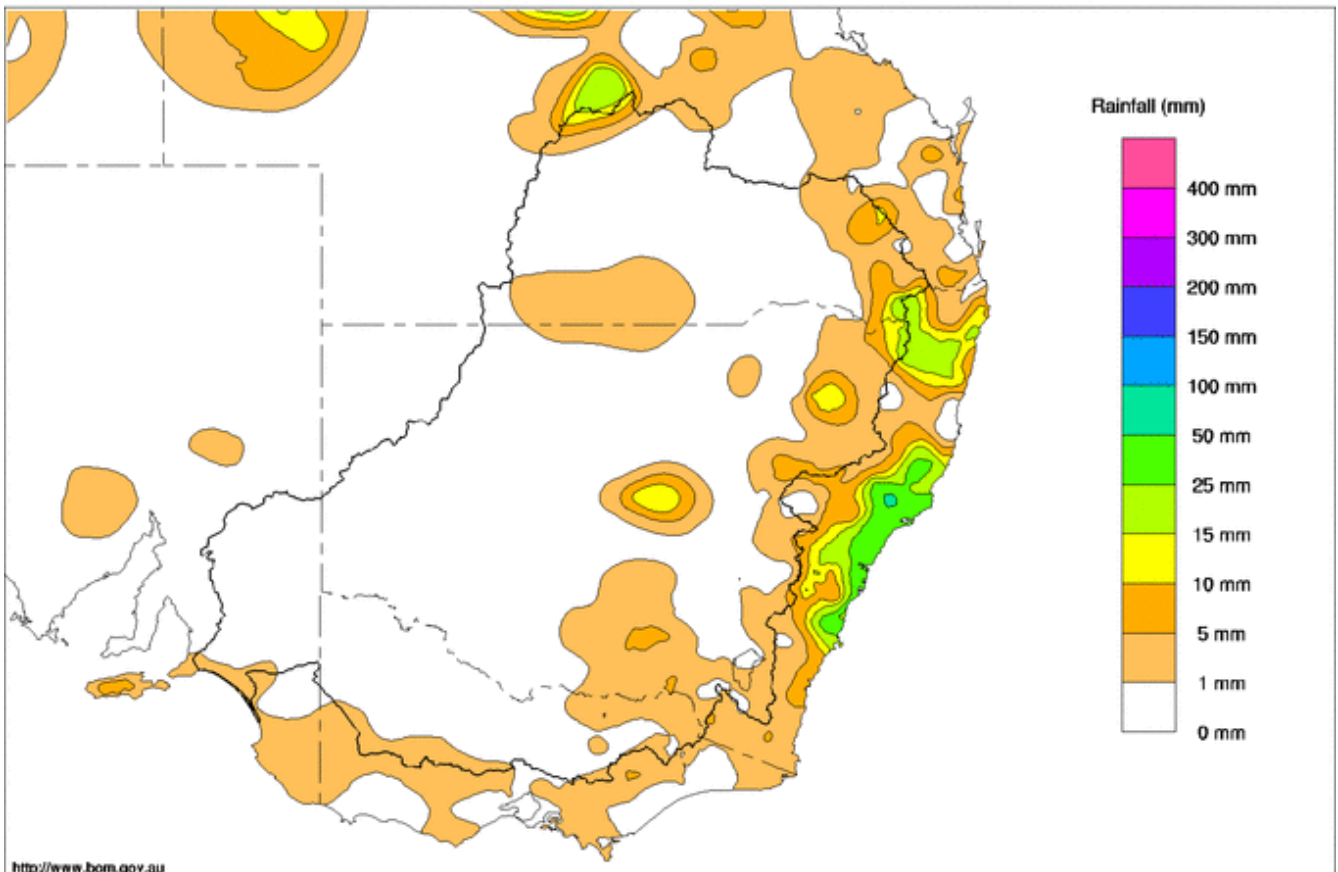
Rainfall and Inflows

Conditions were hot and dry throughout most of the Murray-Darling Basin over the past week. Parts of South Australia, northern Victoria as well as much of New South Wales and Queensland experienced temperatures exceeding 40°C. Rainfall was scarce and only light falls were recorded, generally in the upper catchments (Map 1).

Notable rainfall totals for Queensland included 29mm at Stanthorpe and 20 mm at Apelthorpe in the Darling Downs. In New South Wales the highest totals were 28 mm at Barraba in the Northwest Slopes and 19 mm at Tenterfield in the Central Tablelands. In the north east of Victoria, Osborne’s Flat received 26 mm while Wangaratta had 14 mm of rain.

Murray-Darling Rainfall Totals (mm) Week Ending 13th January 2016

Australian Bureau of Meteorology



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

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Map 1- Murray-Darling Basin rainfall week ending 13th January 2016 (Source: Bureau of Meteorology)

Stream flows along the upper Murray tributaries have decreased after last week’s rainfall. On the Mitta Mitta River at Hinnomunjie bridge, the flow continued to recede from last week’s peak of above 1,000 ML/day and is now around 250 ML/day. On the upper Murray at Biggara a similar trend is evident with flows decreasing to approximately 300 ML/day. At Wangaratta on the Ovens River, flows increased to 480 ML/day early in the week before receding to around 200 ML/day.



River Operations

- Lock 15 at Euston will be closed to river traffic for about 16 weeks, starting after Australia Day, to enable refurbishment of the lock chamber.

With no significant rain in the southern Basin this week, MDBA total storage decreased by 92 GL to an active storage volume of 3,344 GL (40% capacity).

At **Dartmouth** Reservoir, the storage volume fell by 49 GL to 1,903 GL (49% capacity). The release, measured at Colemans, has been increased over the past week to 7,450 ML/day. Releases are planned to be held at around this rate until the coming weekend before being gradually lowered to target a flow of 6,200 ML/day towards the end of January.

Hume Reservoir storage decreased by 28 GL to 1,154 GL (38% capacity). Releases increased from approximately 13,200 ML/day to 14,700 ML/day to meet downstream demand.

At **Lake Mulwala** the pool height has averaged 124.75 m AHD (currently 124.74 m AHD). Diversions to the Mulwala Canal have remained relatively steady around 2,950 ML/day. Of this flow approximately 1,450 ML/day is returning to the Murray and Edward-Wakool system via the Perricoota and Edward escapes in order to bypass the Barmah choke. Diversions to Yarrowonga Main Channel increased from 800 ML/day to 1,100 ML/day. Releases from **Yarrowonga** Weir averaged approximately 10,200 ML/day. This release rate, close to downstream channel capacity, is aimed at meeting current and future downstream requirements.

On the **Edward River** system, the flow through the Edward and Gulpa offtakes has remained close to 1,600 ML/day and 500 ML/day, respectively. Environmental water is maintaining a higher flow through Gulpa creek to maintain a bird breeding event in Millewa Forest, and is also providing increased flow through the Colligen Creek and Wakool system with an average of about 330 ML/day in the Wakool at Gee Gee bridge. Diversions to the Wakool Main Canal have averaged close to 250 ML/day, which is low for this time of year. This may reflect a reduced number of summer crops being grown in the Edward-Wakool region this year compared to last (Photo 1). At Stevens Weir releases have decreased from 2,600 ML/day to 2,500 ML/day, but remain close to channel capacity in order to meet downstream demands.



Photo 1 – Irrigation of rice near Mallan, NSW (Photo courtesy of Liam Collins)



The **Broken Creek** at Rice's Weir has averaged 310 ML/day this past week. Flows at McCoys Bridge on the **Goulburn River** peaked above 1,200 ML/day after last week's thunderstorm activity in the Goulburn catchment, before falling away to 650 ML/day. The **Campaspe River** at Rochester has continued to fall from last week's peak of 240 ML/day and is now close to 30 ML/day.

At **Torrumbarry Weir**, diversions to the National Channel remain steady at 2,400 ML/day, with around 600 ML/day of this water being diverted through Gunbower Creek for Murray Cod. The flow downstream of Torrumbarry Weir has increased to 6,500 ML/day following increased inflows from the Goulburn River, and is forecast to recede to around 6,000 ML/day over the coming week

On the lower **Murrumbidgee River**, the flow at Balranald is currently around 1,300 ML/day, and forecast to increase over the coming week to around 1,500 ML/day. Downstream on the Murray at **Euston**, the weir pool has been returned to approximately Full Supply Level, and flows remain close to 8,000 ML/day. **Lock 15** at Euston will be closed for approximately 16 weeks starting from the end of January to enable refurbishment of the lock chamber. The lock will be closed to boat traffic throughout the duration of these works. Owners and operators of river craft in this region are advised to locate their vessels as appropriate by noon, Wednesday 27 January 2016. Further information can be found on the Water NSW website <http://www.waternsw.com.au/about/newsroom/2016/work-at-euston-lock-to-start-late-january>.

On the Darling River, total storage at **Menindee Lakes** decreased by 2 GL to a storage volume of 67 GL (4% capacity), with releases (measured at Weir 32) effectively ceasing on 15 December. Water users in this region are reminded that a red alert warning for blue green algae at several sites at Menindee Lakes and along the lower Darling is still current. Information updates about blue-green algae blooms and Red Alert areas can be obtained from the Regional Algal Coordinating Committee freecall Algal Information Hotline on **1800 999 457** or visit www.water.nsw.gov.au. There has been no flow at **Burtundy** on the lower Darling since April 2015. The weir pool at **Wentworth**—at the confluence of the Murray and Darling Rivers—continues to be maintained at about 10 cm above Full Supply Level (FSL) to assist water users on the lower Darling arm of the weir pool.

At **Lock 9**, the weir pool is currently targeting about 10 cm below Full Supply Level. At **Lock 8**, the weir pool is currently around 75 cm below FSL and is planned to be further lowered to 80 cm below FSL over the coming weeks. **Lock 7** remains 50 cm below FSL. These changes are part of an on-going weir pool variability trial—[more information](#) on weir pool level changes can be found on MDBA's website.

At **Lake Victoria** the storage volume decreased by 14 GL to 481 GL (71% capacity). The flow to **South Australia** has averaged 6,700 ML/day this week, and is expected to increase over the coming week to around 7,200 ML/day following the provision of environmental water to enable ongoing releases through the barrages fishways into the Coorong.

At the **Lower Lakes**, the 5-day average level in Lake Alexandrina has fallen to 0.62 m AHD. Only the fishways remain open at the barrages to slow the rate of fall of the lake level.

For media inquiries contact the Media Officer on 02 6279 0141

DAVID DREVERMAN
Executive Director, River Management



Water in Storage

Week ending Wednesday 13 Jan 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	449.72	1 903	49%	71	1 832	-49
Hume Reservoir	192.00	3 005	180.18	1 154	38%	23	1 131	-28
Lake Victoria	27.00	677	25.31	481	71%	100	381	-14
Menindee Lakes		1 731*		67	4%	(- -) #	0	-2
Total		9 269		3 605	39%	- -	3 344	-92
Total Active MDBA Storage							40% ^	

Major State Storages

Burrinjuck Reservoir	1 026	570	56%	3	567	-11
Blowering Reservoir	1 631	477	29%	24	453	-4
Eildon Reservoir	3 334	1 533	46%	100	1 433	-22

* 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 12 Jan 2016

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2015
Lake Eucumbene - Total	2 212	-34	Snowy-Murray	+19	333
Snowy-Murray Component	1 099	+4	Tooma-Tumut	+2	141
Target Storage	1 520		Net Diversion	18	192
			Murray 1 Release	+27	520

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)	9.2	252	Yarrowonga Main Channel (net)	4.8	145
Wakool Sys Allowance	3.0	44	Torrumbarry System + Nyah (net)	13.1	287
Western Murray Irrigation	1.3	11	Sunraysia Pumped Districts	5	66
Licensed Pumps	5.0	108	Licensed pumps - GMW (Nyah+u/s)	1.4	21
Lower Darling	0.3	7	Licensed pumps - LMW	20	166
TOTAL	18.8	422	TOTAL	44.3	685

* 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	217.0 *
Flow this week	46.9
Flow so far this month	87.8
Flow last month	202.5

(6 700 ML/day)

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

	Current	Average over the last week	Average since 1 August 2015
Swan Hill	90	90	80
Euston	80	90	-
Red Cliffs	120	120	130
Merbein	120	120	130
Burtundy (Darling)	1 410	1 370	1 070
Lock 9	130	120	140
Lake Victoria	190	190	210
Berri	210	210	220
Waikerie	250	250	280
Morgan	280	280	280
Mannum	400	380	310
Murray Bridge	350	340	330
Milang (Lake Alex.)	860	850	760
Poltalloch (Lake Alex.)	790	760	600
Meningie (Lake Alb.)	2 130	2 140	2 030
Goolwa Barrages	1 410	1 420	1 090



River Levels and Flows

Week ending Wednesday 13 Jan 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	-	-	-	7 180	F	3 970	2 190
Jingellic	4.0	2.03	208.55	7 000	R	4 310	2 660
Tallandoon (Mitta Mitta River)	4.2	3.05	219.94	7 500	S	7 180	6 900
Heywoods	5.5	3.26	156.89	14 740	S	14 110	13 410
Doctors Point	5.5	2.99	151.46	14 830	F	14 560	13 770
Albury	4.3	2.04	149.48	-	-	-	-
Corowa	4.6	3.02	129.04	14 360	R	13 860	13 290
Yarrowonga Weir (d/s)	6.4	1.65	116.69	10 170	R	10 170	9 990
Tocumwal	6.4	2.25	106.09	10 210	S	10 240	10 200
Torrumbarry Weir (d/s)	7.3	2.15	80.70	6 480	F	6 340	6 070
Swan Hill	4.5	1.23	64.15	6 180	R	6 040	5 900
Wakool Junction	8.8	3.07	52.19	8 160	F	8 290	8 200
Euston Weir (d/s)	9.1	1.60	43.44	8 050	F	8 110	7 780
Mildura Weir (d/s)	-	-	-	6 860	F	6 900	6 590
Wentworth Weir (d/s)	7.3	2.79	27.55	5 380	R	5 570	5 240
Rufus Junction	-	3.48	20.41	6 400	F	6 390	6 450
Blanchetown (Lock 1 d/s)	-	0.60	-	3 260	S	3 580	3 180
Tributaries							
Kiewa at Bandiana	2.8	0.76	153.99	200	F	350	280
Ovens at Wangaratta	11.9	7.75	145.43	200	F	340	300
Goulburn at McCoys Bridge	9.0	1.31	92.73	630	F	900	610
Edward at Stevens Weir (d/s)	5.5	2.32	82.09	2 500	F	2 540	2 550
Edward at Liewah	-	2.89	58.27	2 410	F	2 420	2 430
Wakool at Stoney Crossing	-	1.52	55.01	660	R	640	660
Murrumbidgee at Balranald	5.0	1.71	57.67	1 310	F	1 480	1 300
Barwon at Mungindi	6.1	3.31	-	290	F	400	80
Darling at Bourke	9.0	3.67	-	0	F	0	0
Darling at Burtundy Rocks	-	0.61	-	0	F	0	0

Natural Inflow to Hume	770	2 180
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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	-0.16	-	No. 7 Rufus River	22.10	-0.49	+1.15
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.04	+0.07
No. 15 Euston	47.60	+0.04	-	No. 5 Renmark	16.30	+0.02	+0.17
No. 11 Mildura	34.40	+0.02	+0.15	No. 4 Bookpurnong	13.20	+0.01	+0.61
No. 10 Wentworth	30.80	+0.09	+0.15	No. 3 Overland Corner	9.80	+0.01	+0.15
No. 9 Kulnine	27.40	-0.06	-0.69	No. 2 Waikerie	6.10	+0.03	+0.03
No. 8 Wangumma	24.60	-0.73	-0.34	No. 1 Blanchetown	3.20	-0.09	-0.15

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.62
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Barrages

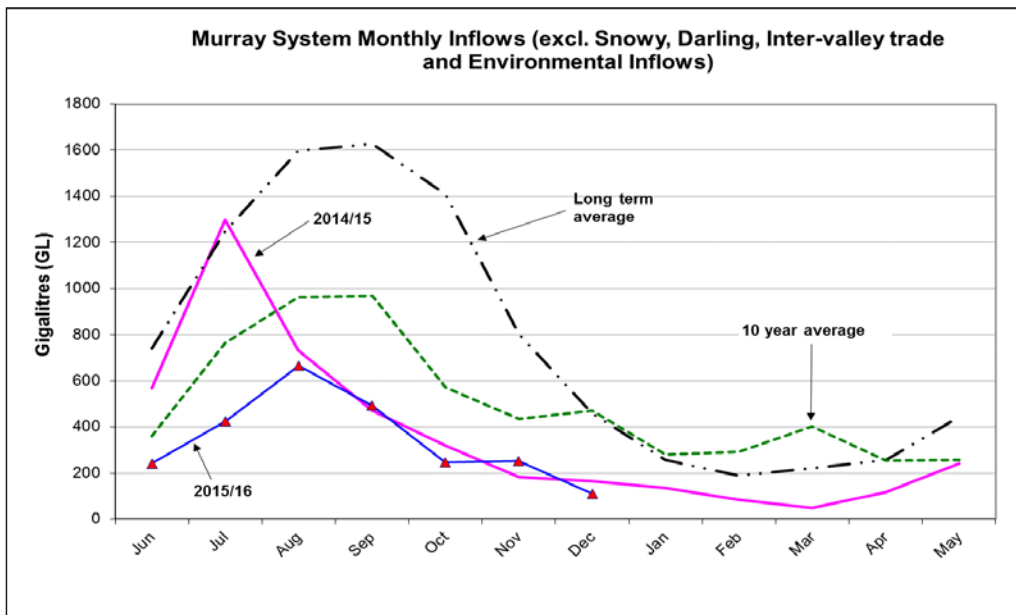
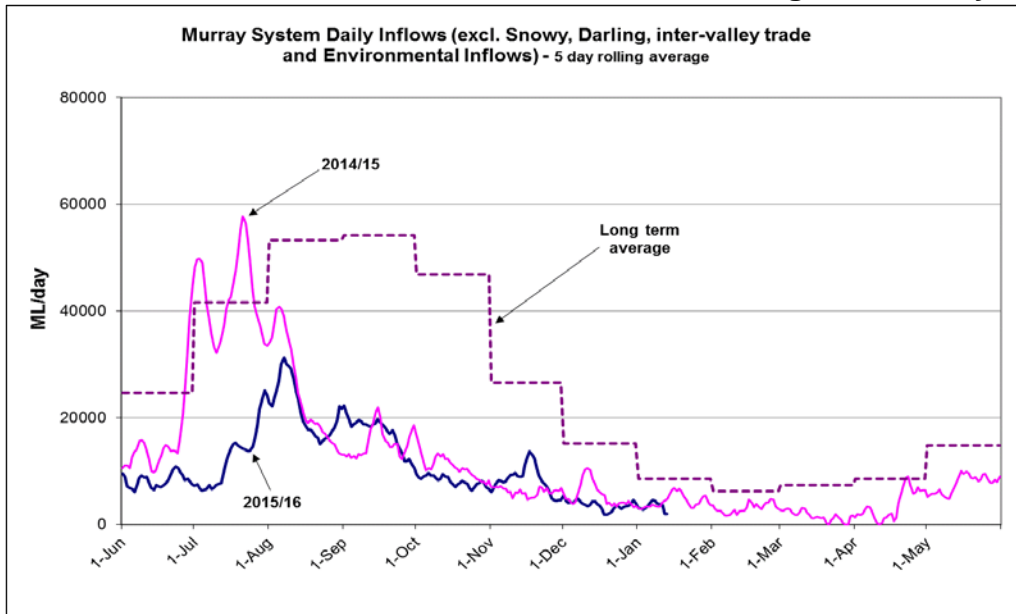
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot
Goolwa	128 openings	0.61	All closed	-	Closed
Mundoo	26 openings	0.66	All closed	-	-
Boundary Creek	6 openings	-	All closed	-	-
Ewe Island	111 gates	-	All closed	-	-
Tauwichee	322 gates	0.62	All closed	Closed	Open

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



Week ending Wednesday 13 Jan 2016



State Allocations (as at 13 Jan 2016)

NSW - Murray Valley

High security	97%
General security	19%

Victorian - Murray Valley

High reliability	95%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	32%

Victorian - Goulburn Valley

High reliability	84%
Low reliability	0%

NSW - Lower Darling

High security	50%
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>