



# RIVER MURRAY WEEKLY REPORT

FOR THE WEEK ENDING WEDNESDAY, 9 MAY 2018

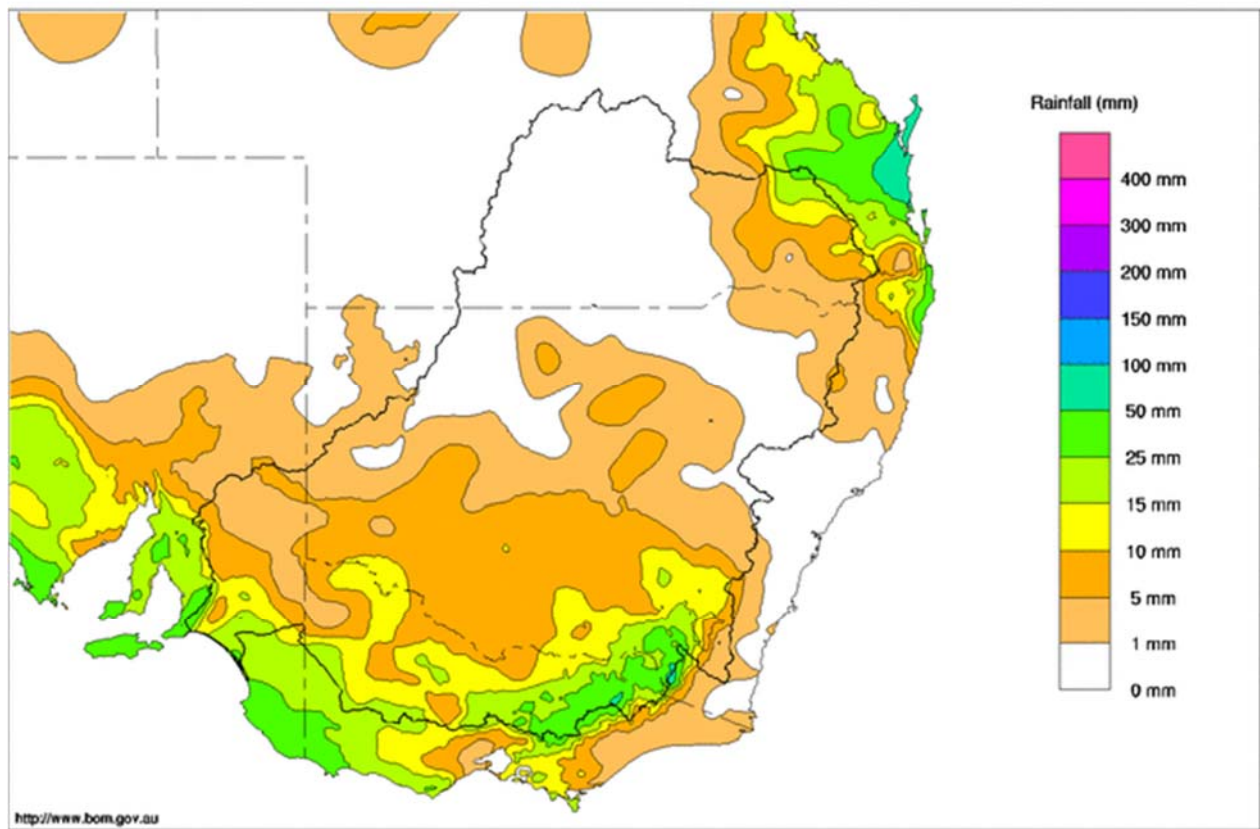
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## Rainfall and inflows

Rain fell across much of the southern Basin this week with the highest falls recorded around the southeast ranges (Map 1). At higher altitudes in the Snowy Mountains, cold temperatures resulted in the precipitation falling as snow (Photo1). The highest totals included 62 mm at Mt Hotham AWS and Rocky Valley in Victoria's northeast and 50 mm at Cabramurra on the southwest slopes of NSW. Just outside the catchment in the Snowy Mountains, Thredbo recorded 85 mm. In the northern basin, the highest falls were recorded in the Darling Downs and included 22 mm at Chinchilla and 21 mm at Dalby.

Further rain is [forecast](#) along the southern slopes and ranges in coming days however the Bureau of Meteorology are not forecasting any significant [stream flow responses](#) in the Basin.

Murray-Darling Rainfall Totals (mm) Week Ending 9th May 2018  
Australian Bureau of Meteorology



Map 1 - Murray-Darling Basin rainfall map week ending 9 May 2018 (Source: Bureau of Meteorology).

Rainfall this week resulted in small streamflow rises in the upper Murray tributaries. Flow in the upper Mitta Mitta River at Hinnomunjie peaked at around 950 ML/day. In the upper Murray at Biggara, the flow reached 800 ML/day. Inflows from the Kiewa River at Bandiana and the Ovens River at Wangaratta both peaked around 500 ML/day.



Photo 1- Snow at Blue Lake near Charlotte's Pass in the Snowy Mountains. The ridge line on the horizon in the photo is the boundary between the Gechi (within the upper Murray catchment) and Snowy river catchments (Photo courtesy Alex Burgess-Norris).

## River operations

- MDBA active storage increasing
- Lake Mulwala being lowered to help manage invasive aquatic weed *Egeria densa*
- Torrumbarry and Euston weir pool levels to be lowered

As the irrigation season draws to a close and releases from storage reduce towards minimums, MDBA active storage volume has now started to increase. An improvement of 34 GL was observed over the week with MDBA active storage now 4,379 GL (52% capacity).

The total storage volume at **Dartmouth Reservoir** remained steady at 3,414 GL (89% capacity). The release, measured at the Colemans gauge, is currently targeting 300 ML/day. A flow pulse on the Mitta Mitta River is planned to commence on 19 May. The pulse will benefit the water quality in the Mitta Mitta River downstream of Dartmouth Dam. More information on the flow pulse will be provided next week.

At **Hume Reservoir**, the storage volume increased by 16 GL to 942 GL (31% capacity). The release from Hume has continued to be gradually reduced and is currently targeting 1,300 ML/day.

Downstream at **Lake Mulwala**, the diversion to Yarrowonga Main Channel (YMC) continued to reduce and is currently 300 ML/day. Diversions are expected to cease on 15 May, however rain forecast in the coming days may further reduce demand and allow water delivery to cease sooner. The lake level is currently 124.53 m AHD (17cm below the normal operating level of 124.7 m AHD). The lake level is



being [gradually lowered](#) but will remain at or above 124.0 m AHD until mid-May so diversions into YMC can continue. From mid-May onwards, lowering of the lake level will continue aiming to reach 121.2 m AHD by the start of June where it will be held at that level until mid-July to manage the invasive water weed *Egeria densa*. Lowering the water level and subjecting the exposed weed to drying and frost has proven to be an effective method for controlling its abundance within the weir pool. The draw down also provides an opportunity to undertake works on the lake foreshore.

Releases from **Yarrowonga Weir** are currently targeting 5,000 ML/day. Later next week, when water deliveries to Yarrowonga Main Channel cease, the release downstream is expected to reach around 8,000 ML/day as more water is released from Lake Mulwala as part of the draw down.

Flow rates through the Edward and Gulpa Creek offtakes have gradually reduced this week as the level in the River Murray at Picnic Point has receded. Flows of around 1,200 ML/day and 220 ML/day (respectively) are currently being targeted. In the coming weeks, the offtake gates are expected to be raised clear of the water. Without regulation, the inflows to the Edward-Wakool system can be expected to fluctuate over winter in response to the changes in river levels downstream of Yarrowonga Weir.

In a last hoorah for the season, diversions to the Wakool Main Canal briefly rose to around 1,450 ML/day before the Canal closed for the season on 7 May. With water delivery finished, [WaterNSW](#) are drawing down Stevens Weir pool to allow maintenance works on the weir and at the off-take regulators. The release downstream of Steven's Weir averaged 1,280 ML/day and is expected to continue around this rate as the weir pool is drawn down.

Inflow to the Murray from the **Goulburn River** gradually reduced as Murray system demands eased and the delivery of inter-valley trade (IVT) water from the Goulburn winds up. The flow, measured at McCoys Bridge, is currently 1,630 ML/day. The total volume of water delivered from the Goulburn IVT for the 2017-18 water year is expected to reach a record high of close to 290 GL. These deliveries support meeting River Murray system demands. Even with the delivery of this volume, the balance in the Goulburn IVT account remains around 150 GL. Information regarding current opportunities for allocation trade between the Goulburn and Murray valleys is available at the [Victorian water register website](#).

At **Torrumbarry Weir**, the pool remains at the normal full supply level (FSL). From mid-May the pool is planned to be gradually drawn down to around 30 cm below FSL. This action is aimed at helping improve river bank stability and environmental outcomes within the influence of the weir pool. More information is available at the [MDBA website](#).

Diversion into National Channel reduced from 1,900 ML/day to 1,200 ML/day. A further reduction in diversion to 500 ML/day is expected early next week before the close of the irrigation season on Monday 14 May. Diversions will recommence later in May to deliver water to Gunbower Creek, on behalf of the environmental water holder, to maintain winter base flows for the benefit of native fish. The downstream release from Torrumbarry Weir averaged 7,150 ML/day and is expected average around 6,000 ML/day over the coming week.

Inflow from the **Murrumbidgee River**, measured at Balranald, averaged 390 ML/day. The [Murrumbidgee IVT balance](#) is currently 0 GL. Interstate trading from the Murrumbidgee Valley has closed and intra-valley trade will close at the end of this month. More information on Murrumbidgee trade can be found in the [WaterNSW media release](#).

At **Euston**, the weir pool is targeting between FSL and 10 cm below FSL. Over the coming weeks the pool level will be gradually lowered to around 40 cm below FSL as part of the [weir pool variability program](#) which aims to help restore a more natural wetting and drying regime for river banks and wetlands. The downstream release is currently around 7,800 ML/day (Photo 2) and expected to remain around this rate over the coming week.



Photo 2 – River Murray near Wemen downstream of Euston (Photo courtesy Andrew Bishop, MDBA)

This week the **Menindee Lakes** storage volume decreased by 3 GL to 228 GL (13% capacity). Please note a correction from last week regarding the volume stored in Lake Tandure, which has now separated from Lake Wetherell. WaterNSW continues to manage the Menindee Lakes in accordance with the [Lower Darling Annual Operations Plan](#). The [release from Weir 32](#) is targeting around 160 ML/day with the aim to maintain a minimum flow in the lower Darling at Burtundy, where the flow is currently around 70 ML/day. A [red alert](#) warning (high alert) for blue-green algae continues for Lake Tandure and the lower Darling River between Pooncarie and Burtundy.

The **Wentworth** weir pool is targeting around 10 cm above FSL to assist pumpers in the upper reaches of the lower Darling arm of the Wentworth weir pool. Over the coming week the pool level will return to vary around the FSL as pumping demands have reduced. The release from Wentworth remained fairly steady averaging 6,500 ML/day.

The **Locks 7 and 9** weir pools continue to target a water level 10 cm below FSL and will vary between FSL and 10 cm below FSL over the coming weeks. The **Lock 8** weir pool is targeting 30 cm below FSL.

At **Lake Victoria**, the storage volume increased by 18 GL to 217 GL (32% capacity). The storage is expected to continue to increase over the coming weeks, supplemented by water released from the drawdown of Lake Mulwala during May.

The flow to **South Australia** is currently around 3,000 ML/day and expected to remain around this rate for the coming week. Downstream at Locks 6, 5 and 2, weir pool lowering trials are being considered for the coming winter. More information is available in South Australia's [River Murray flow report](#).

At the **Lower Lakes**, the 5-day average water level is 0.53 m AHD. Releases from the barrages averaged 340 ML/day and were prioritised through Tauwitchere barrage.

**For media inquiries contact the Media Officer on 02 6279 0141**

ANDREW REYNOLDS  
Executive Director, River Management



**Water in Storage**

**Week ending Wednesday 09 May 2018**

MDBA Storages	Full Supply Level	Full Supply Volume	Current Storage Level	Current Storage		Dead Storage (GL)	Active Storage (GL)	Change in Total Storage for the Week (GL)
	(m AHD)	(GL)	(m AHD)	(GL)	%			
Dartmouth Reservoir	486.00	3 856	479.02	3 414	89%	71	3 343	+0
Hume Reservoir	192.00	3 005	178.28	942	31%	23	919	+16
Lake Victoria	27.00	677	22.68	217	32%	100	117	+18
Menindee Lakes		1 731*		228	13%	(- -) #	0	-3
<b>Total</b>		<b>9 269</b>		<b>4 801</b>	<b>52%</b>	<b>--</b>	<b>4 379</b>	<b>+30</b>
Total Active MDBA Storage							52% ^	

**Major State Storages**

Burrinjuck Reservoir	1 026	411	40%	3	408	-2
Blowering Reservoir	1 631	784	47%	24	760	-1
Eildon Reservoir	3 334	1 826	55%	100	1 726	-13

\* Menindee surcharge capacity – 2050 GL

\*\* All Data is rounded to nearest GL \*\*

# NSW has sole access to water when the storage falls below 480 GL. MDBA regains access to water when the storage next reaches 640 GL.

^ % of total active MDBA storage

**Snowy Mountains Scheme**

Snowy diversions for week ending 08 May 2018

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2018
Lake Eucumbene - Total	1 219	-19	Snowy-Murray	+15	20
Snowy-Murray Component	514	+14	Tooma-Tumut	+3	4
Target Storage	1 290		Net Diversion	12	16
			Murray 1 Release	+15	22

**Major Diversions from Murray and Lower Darling (GL) \***

New South Wales	This Week	From 1 July 2017	Victoria	This Week	From 1 July 2017
Murray Irrig. Ltd (Net)	-4.9	963	Yarrowonga Main Channel (net)	3.2	295
Wakool Sys Allowance	2.6	72	Torrumbarry System + Nyah (net)	8.2	482
Western Murray Irrigation	0.2	24	Sunraysia Pumped Districts	0.7	113
Licensed Pumps	2.6	245	Licensed pumps - GMW (Nyah+u/s)	1	47
Lower Darling	0.2	91	Licensed pumps - LMW	4.6	370
<b>TOTAL</b>	<b>0.7</b>	<b>1395</b>	<b>TOTAL</b>	<b>17.7</b>	<b>1307</b>

\* Figures are derived from actual and estimates where data is unavailable. 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 environmental flows.

Entitlement this month	93.0 *
Flow this week	22.5
Flow so far this month	30.0
Flow last month	172.4

(3 200 ML/day)

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

	Current	Average over the last week	Average since 1 August 2017
Swan Hill	80	80	100
Euston	90	90	-
Red Cliffs	130	140	160
Merbein	140	130	160
Burtundy (Darling)	740	730	670
Lock 9	150	150	170
Lake Victoria	240	240	240
Berri	300	300	280
Waikerie	340	340	330
Morgan	350	350	340
Mannum	380	380	370
Murray Bridge	410	410	400
Milang (Lake Alex.)	820	810	710
Poltalloch (Lake Alex.)	660	650	640
Meningie (Lake Alb.)	1 540	1 620	1 590
Goolwa Barrages	6 940	7 210	2 030



**River Levels and Flows**

**Week ending Wednesday 09 May 2018**

	Minor Flood Stage	Gauge Height		Flow (ML/day)	Trend	Average Flow this Week (ML/day)	Average Flow last Week (ML/day)
		local (m)	(m AHD)				
<b>River Murray</b>	(m)						
Khancoban	-	-	-	3 000	F	2 850	4 120
Jingellic	4.0	1.58	208.10	3 580	S	3 740	4 240
Tallandoon ( Mitta Mitta River )	4.2	1.42	218.31	600	S	630	600
Heywoods	5.5	1.60	155.23	1 390	F	2 540	9 890
Doctors Point	5.5	1.64	150.11	1 870	F	2 870	10 770
Albury	4.3	0.85	148.29	-	-	-	-
Corowa	4.6	0.99	127.01	2 940	F	4 570	12 400
Yarrowonga Weir (d/s)	6.4	0.99	116.03	5 010	F	6 500	8 340
Tocumwal	6.4	1.70	105.54	5 990	F	7 170	8 380
Torrumbarry Weir (d/s)	7.3	2.43	80.97	7 060	F	7 150	6 830
Swan Hill	4.5	1.38	64.30	7 150	R	6 970	6 380
Wakool Junction	8.8	3.10	52.22	8 080	R	7 840	7 160
Euston Weir (d/s)	9.1	1.56	43.40	7 770	S	7 350	6 560
Mildura Weir (d/s)	-	-	-	7 130	F	6 820	6 090
Wentworth Weir (d/s)	7.3	2.83	27.59	6 710	R	6 490	5 280
Rufus Junction	-	2.86	19.79	2 870	R	2 840	3 980
Blanchetown (Lock 1 d/s)	-	0.48	-	2 190	R	2 360	3 470
<b>Tributaries</b>							
Kiewa at Bandiana	2.8	1.01	154.24	490	R	350	260
Ovens at Wangaratta	11.9	7.89	145.57	370	F	370	260
Goulburn at McCoys Bridge	9.0	1.89	93.31	1 630	F	1 890	2 040
Edward at Stevens Weir (d/s)	5.5	1.79	81.56	1 650	F	1 280	1 200
Edward at Liewah	-	1.77	57.15	1 080	R	950	840
Wakool at Stoney Crossing	-	1.52	55.01	650	F	660	660
Murrumbidgee at Balranald	5.0	0.77	56.73	390	F	390	280
Barwon at Mungindi	6.1	3.35	-	410	S	260	70
Darling at Bourke	9.0	4.00	-	50	R	40	50
Darling at Burtundy Rocks	-	0.70	-	70	S	70	60

Natural Inflow to Hume	2 360	1 030
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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	-0.37	-	No. 7 Rufus River	22.10	-0.07	+0.53
No. 26 Torrumbarry	86.05	-0.00	-	No. 6 Murtho	19.25	-0.03	+0.00
No. 15 Euston	47.60	-0.09	-	No. 5 Renmark	16.30	+0.04	+0.10
No. 11 Mildura	34.40	+0.06	+0.16	No. 4 Bookpurnong	13.20	+0.05	+0.32
No. 10 Wentworth	30.80	+0.03	+0.19	No. 3 Overland Corner	9.80	+0.03	+0.14
No. 9 Kulnine	27.40	-0.09	-0.30	No. 2 Waikerie	6.10	+0.03	+0.16
No. 8 Wangumma	24.60	-0.29	-0.04	No. 1 Blanchetown	3.20	+0.11	-0.27

**Lower Lakes FSL = 0.75 m AHD**

Lake Alexandrina average level for the past 5 days (m AHD)	0.53
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**Barrages**

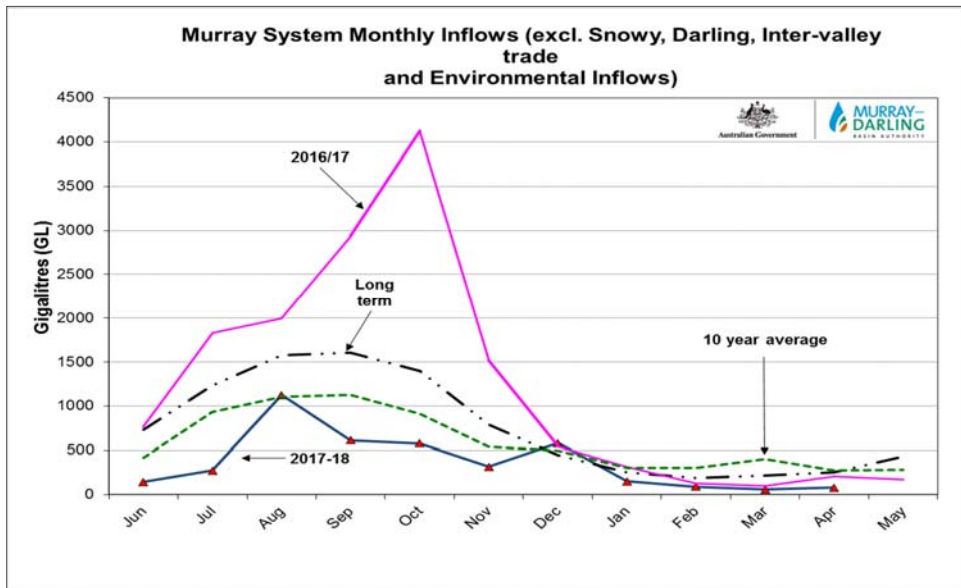
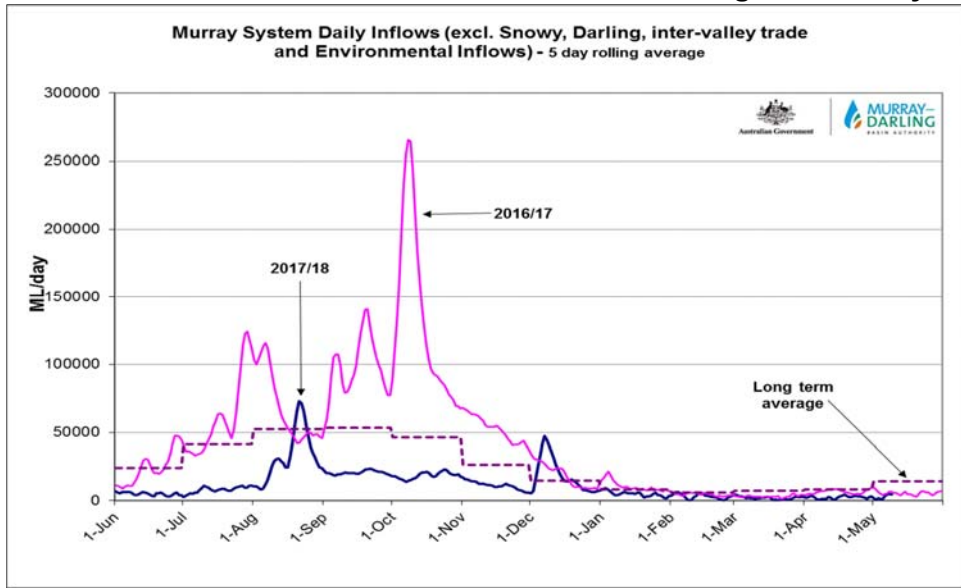
**Fishways at Barrages**

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.54	All closed	-	Open	Open	-
Mundoo	26 openings	0.51	All closed	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	All closed	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwitchere	322 gates	0.57	2	Open	Open	Open	-

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



Week ending Wednesday 09 May 2018



State Allocations (as at 09 May 2018)

NSW - Murray Valley

High security	97%
General security	51%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	41%

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