



# River Murray Weekly Report

For the week ending Wednesday, 30 January 2019

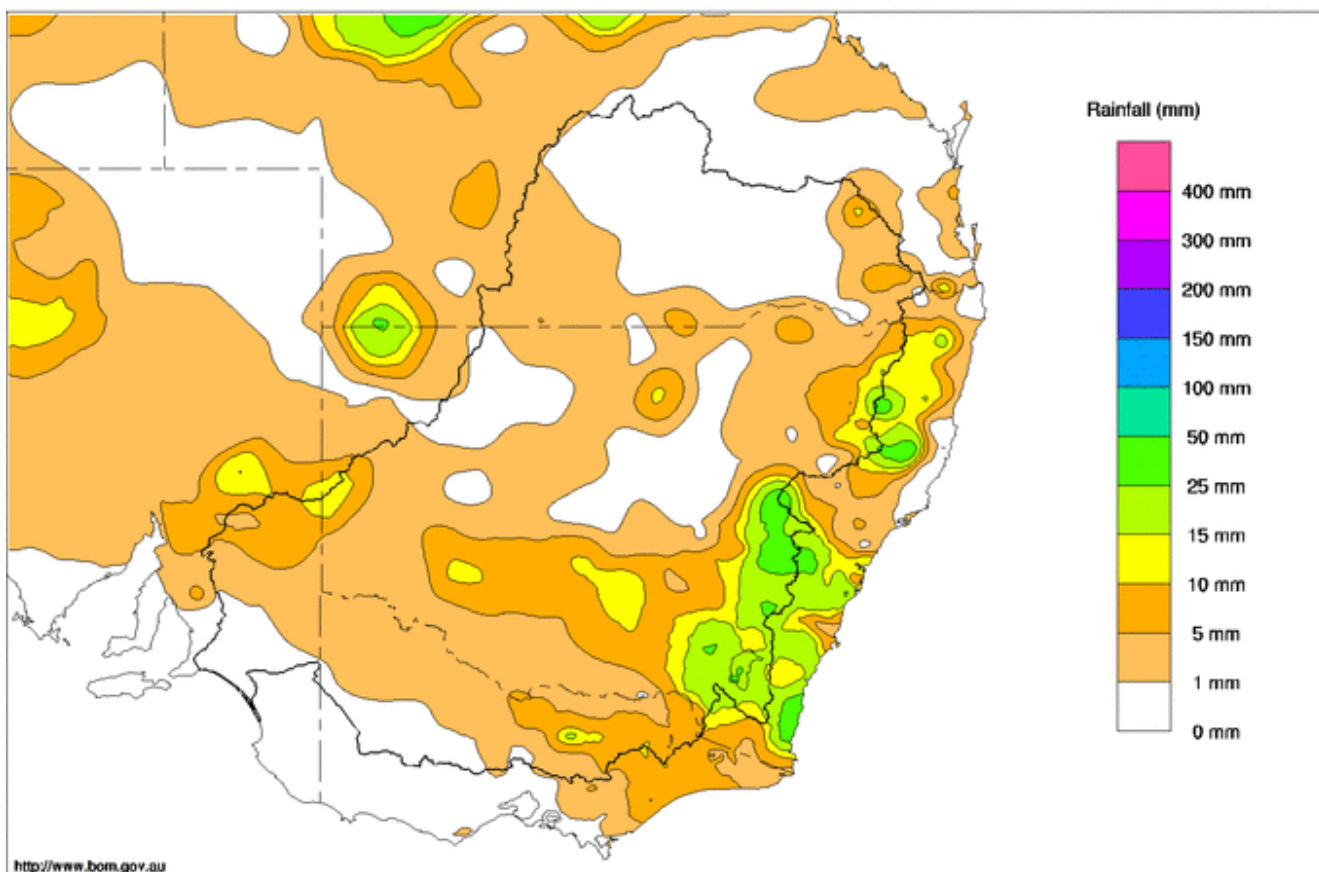
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## Rainfall and inflows

Rainfall this week was mostly due to scattered thunderstorm activity with the heaviest falls confined to the Great Dividing Range of New South Wales (Map 1). Only light falls were recorded in Queensland, Victoria and South Australia.

Very hot temperatures persisted across the Basin early this week before a weak cool change provided some relief. Numerous temperature records were broken in New South Wales and Victoria with many locations along the River Murray System recording temperatures in the mid-40s. Conditions along the Murray are forecast to be warm to hot and mostly dry over the coming week.

Murray-Darling Rainfall Totals (mm) Week Ending 30th January 2019  
Australian Bureau of Meteorology



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Map 1 - Murray-Darling Basin rainfall map week ending 30 January 2019 (Source: Bureau of Meteorology).

With hot and mostly dry conditions upper Murray tributaries have remained at low summer baseflow levels. The flow upstream of Dartmouth Dam, on the Mitta Mitta River at Hinnomunjie, is currently near 140 ML/day, while the upper Murray, at Biggara, is steady near 180 ML/day. Downstream of Hume, inflow from the Kiewa River has fluctuated in response to electricity demands and associated hydroelectricity generation, with the flow at Bandiana varying between 200 and 1,800 ML/day. On the Ovens River at Wangaratta, stream flows have been relatively steady near 300 ML/day.



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## River operations

- Numerous temperature records broken along the River Murray System
- Red alerts for blue-green algae remain at several locations
- Transfers from Dartmouth Reservoir to Hume Reservoir continue
- IVT deliveries from Goulburn Valley to Murray continue

### River operations

The MDBA active storage volume decreased by 100 GL this week to 3,786 GL (45% capacity).

The **Dartmouth Reservoir** storage volume decreased by 38 GL to 2,590 GL (67% capacity). Transfers from Dartmouth Dam to Hume Dam were initially planned to ease to 3,800 ML/day over the Australia Day long weekend. However, heatwave conditions across south-eastern Australia resulted in AGL Hydro calling entitlement from Dartmouth Dam for increased hydroelectricity generation to assist in stabilising the energy grid. Flows have since returned to the current operational requirement of 5,000 ML/day, and are expected to cycle between the current flow and 3,800 ML/day throughout February.

At **Hume Reservoir**, the storage volume continued to decline, reducing by 31 GL to 985 GL (33% capacity). A [red level warning \(high alert\) for blue-green algae](#) was issued last week for Lake Hume. Current environmental conditions are well suited to algal growth due to prevailing hot weather and warm water temperatures that help promote blue-green algal blooms. The release from Hume is currently targeting 12,300 ML/day.

Downstream at **Lake Mulwala** the level is currently 124.86 m AHD, which is within the normal operating range (124.6 to 124.9 m AHD). Diversions to the major irrigation offtakes have been relatively steady over the past week. Diversion to Yarrawonga Main Channel averaged near 850 ML/day, while on the New South Wales side Mulwala Canal diversion averaged around 3,700 ML/day. Of the diversion to Mulwala Canal, approximately 2,200 ML/day is being diverted around the Barmah Choke through Murray Irrigation Limited (MIL) infrastructure and released into the River Murray (Perricoota escape), Wakool River (Wakool escape), Edward River (Edward escape) and Billabong Creek (Finley escape). Similarly, on the Victorian side around 120 ML/day continues to travel through Yarrawonga Main Channel and into the Broken Creek, again to meet demands downstream of the Barmah Choke. The release from **Yarrawonga Weir** is currently targeting 8,800 ML/day and is expected to remain steady over the coming week.

Flows at the **Edward River** and **Gulpa Creek** offtakes are currently around their normal summer regulated flow rates of 1,600 ML/day and 350 ML/day. Diversion into Wakool Main Canal averaged 110 ML/day, and Wakool, Yallakool and Colligen offtakes are passing around 60, 420 and 400 ML/day respectively. The flow in the Edward River downstream of Stevens Weir continues to target channel capacity of around 2,700 ML/day.

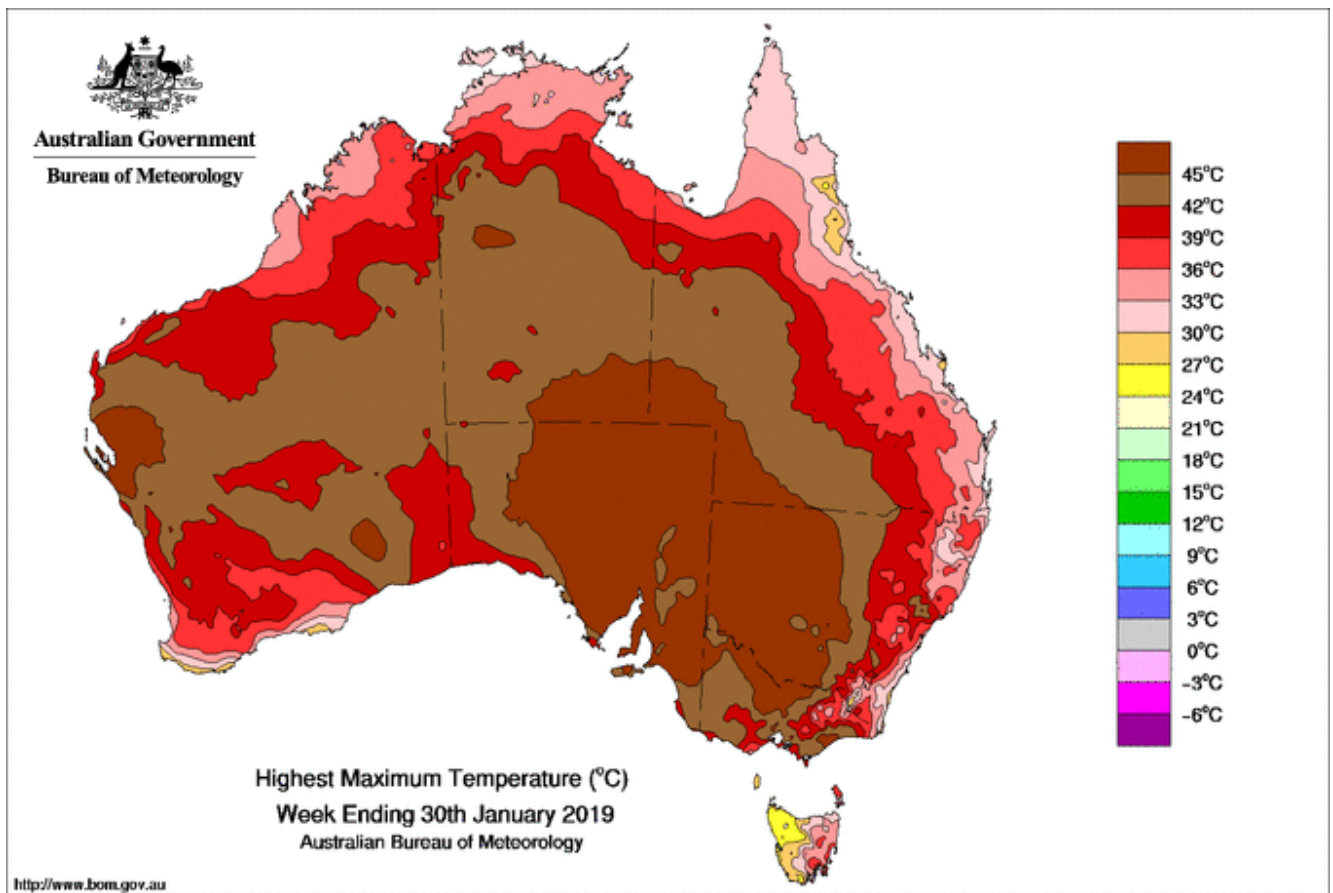
Inflow to the Murray from the **Goulburn River**, measured at McCoys Bridge, is currently near 2,800 ML/day. The majority of this flow is Goulburn Valley Inter Valley Trade (IVT) water that is being delivered to help meet demands on the River Murray as a result of trade from the Goulburn to the Murray valley. A sustained call of IVT from the Broken Creek, Goulburn River and Campaspe River is [likely](#) over the coming months while temperatures are hot, dry and River Murray demands remain high. Information regarding current opportunities for allocation trade between the Goulburn and Murray valleys is available at the [Victorian water register website](#).

National Channel diversions remained around 2,000 ML/day during the past week and are likely to continue around this rate. In the coming days a current small IVT pulse in the Campaspe River is expected to briefly increase the **Torrumbarry Weir** release above the current 7,700 ML/day, before receding later in the coming week.

Downstream, the flow at **Swan Hill** has remained fairly steady this week and is currently near 7,700 ML/day. Swan Hill posted a new daily temperature record this week, with 47.5°C on 25 January. Albury (45.3°C), Kerang (47.6 °C) and Deniliquin (47.2 °C) also broke their all-time records.



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Map 2 – Highest Maximum Temperature for the week ending 30 January 2019 (Source: Bureau of Meteorology).

Numerous records were also set in the Murrumbidgee catchment at Griffith (46.4 °C) and Cootamundra (43.6 °C). This week inflows from the **Murrumbidgee River**, measured at Balranald, increased from around 140 ML/day to 380 ML/day as environmental water was delivered to help improve low dissolved oxygen levels in parts of the Murrumbidgee caused by blue-green algae. The flow at Balranald is expected to remain above the current rate over the next few weeks. The [Murrumbidgee IVT balance](#) is currently below 0 GL, preventing the MDBA from calling water from this valley to help meet Murray system demands.

At **Euston**, the weir pool is targeting 20 cm above the full supply level (FSL). If required, the additional volume stored in the Euston weir pool will be used to boost downstream flows during hot and dry periods when irrigation demands are high. The downstream release gradually increased to around 7,900 ML/day this week and is expected to average over 8,000 ML/day this coming week.

The red alert warning (high alert) for blue-green algae has been [lifted in the Mildura Weir pool, part of the upper Wentworth weir pool and the Lock 9 weir pool](#). However, a red alert warning remains in place from Merbein to Wentworth weir.

The **Menindee Lakes** storage volume decreased by 3 GL to 42 GL (2% capacity). WaterNSW continues to manage the Menindee Lakes in accordance with the [Lower Darling Annual Operations Plan](#). As part of drought contingency measures within this plan, WaterNSW has installed four temporary block banks across the lower Darling below Pooncarie near Jamesville, below Burtundy near Ashvale, and upstream of Pooncarie at Court Nareen and Karoola. Water held in these pools will assist in maintaining supply to domestic, stock and permanent plantings along the lower Darling.

The release from Weir 32 is around 65 ML/day this week. [WaterNSW](#) estimates a minimum delivery of 50 ML/day to properties between Weir 32 and the first block bank at Karoola in the upper stretch of the Lower Darling until the end of January will be possible. [Water restrictions](#) remain in place across much of New South Wales as a result of the extensive and on-going drought conditions.



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A red level warning (high alert) for blue-green algae is current for parts of the Darling River downstream of Rose Isle (between Bourke and Louth), Lake Wetherell, Lake Pamamaroo, Copi Hollow, Lake Cawndilla and the Lower Darling River at Menindee, Tolarno and Burtundy. A visual summary of alert levels in New South Wales is available on the [WaterNSW website](#). The poor water quality conditions in the river has led to [fish deaths](#) in the lower Darling River. More information regarding the water quality conditions of the lakes and the lower Darling is available at the WaterNSW [website](#). Information on factors that affect fish is available from NSW Department of Primary Industries [website](#). Information on drought impacts across the Murray-Darling Basin including on fish and operations is available on the [MDBA website](#).

At **Wentworth Weir**, operations continue to target a pool level of around 10 cm above the Full Supply Level (FSL) to assist pumpers in the upper reaches of the Darling River arm of the weir pool. A red alert warning (high alert) for blue-green algae is current for the Wentworth Weir pool, from Merbein downstream to the weir. The downstream release is currently near 5,000 ML/day and is expected to be above 5,000 ML/day over the coming week.

The **Lock 9** weir pool is currently near Full Supply Level (FSL). At **Lock 8**, the weir pool is targeting 50 cm below FSL and the **Lock 7** weir pool is targeting 10 – 20 cm below FSL. During February, the weir pool levels at Lock 8 and Lock 7 will be further lowered to around 60 cm and 50 cm (respectively) below FSL.

At **Lake Victoria** the storage reduced by 31 GL to 405 GL (60% capacity). The flow to **South Australia** is currently targeting around 7,500 ML/day and is expected to be marginally higher over the coming week. The current flow to South Australia consists of entitlement flow, traded water and environmental water. Deliveries of environmental water are expected to continue through summer.

Hot weather contributed to a 4 cm decrease in the 5-day average water level in the **Lower Lakes** to 0.62 m AHD. Environmental water delivered to South Australia is helping to slow the rate of fall at the Lower Lakes and prolong small barrage releases to maintain connectivity between Lake Alexandrina and the Coorong estuary. These barrage releases may also provide suitable salinity gradient for Black Bream spawning. Barrage releases have been prioritised for Tauwitchere and Goolwa and all fishways remain open. For more information see the South Australian Department for Environment and Water's latest [River Murray flow report](#).

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

ANDREW REYNOLDS  
Executive Director, River Management



Australian Government



# River Murray Weekly Report

## Water in Storage

Week ending Wednesday 30 Jan 2019

MDBA Storages	Full Supply Level (m AHD)	Full Supply Volume (GL)	Current Storage Level (m AHD)	Current Storage		Dead Storage (GL)	Active Storage (GL)	Change in Total Storage for the Week (GL)
				(GL)	%			
Dartmouth Reservoir	486.00	3 856	464.33	2 590	67%	71	2 519	-38
Hume Reservoir	192.00	3 005	178.68	985	33%	23	962	-31
Lake Victoria	27.00	677	24.59	405	60%	100	305	-31
Menindee Lakes		1 731*		42	2%	(- -) #	0	-3
<b>Total</b>		<b>9 269</b>		<b>4 022</b>	<b>43%</b>	<b>--</b>	<b>3 786</b>	<b>-102</b>
Total Active MDBA Storage						45% ^		

## Major State storages

Burrinjuck Reservoir	1 026	385	38%	3	382	-29
Blowering Reservoir	1 631	523	32%	24	499	-28
Eildon Reservoir	3 334	1 641	49%	100	1 541	-59

\* 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 29 Jan 2019

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2018
Lake Eucumbene - Total	845	-25	Snowy-Murray	+31	572
Snowy-Murray Component	462	-29	Tooma-Tumut	+1	181
Target Storage	1 520		Net Diversions	29	391
			Murray 1 Release	+30	720

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

New South Wales	This Week	From 1 July 2018	Victoria	This Week	From 1 July 2018
Murray Irrig. Ltd (Net)	9.1	269	Yarrowonga Main Channel (net)	4.6	150
Wakool Sys Allowance	2.4	22	Torrumbarry System + Nyah (net)	0.3	344
Western Murray Irrigation	1.3	17	Sunraysia Pumped Districts	4.9	84
Licensed Pumps	5.6	128	Licensed pumps - GMW (Nyah+u/s)	1	22
Lower Darling	0.1	6	Licensed pumps - LMW	4.6	267
<b>TOTAL</b>	<b>18.5</b>	<b>442</b>	<b>TOTAL</b>	<b>15.4</b>	<b>867</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	217.0 *	
Flow this week	52.5	(7 500 ML/day)
Flow so far this month	260.7	
Flow last month	264.4	

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

	Current	Average over the last week	Average since 1 August 2018
Swan Hill	60	60	70
Euston	-	-	-
Red Cliffs	130	140	110
Merbein	100	100	110
Burtundy (Darling)	980	960	820
Lock 9	100	100	110
Lake Victoria	150	160	160
Berri	180	170	200
Waikerie	210	200	260
Morgan	220	210	270
Mannum	270	270	320
Murray Bridge	320	330	360
Milang (Lake Alex.)	460	920	900
Poltalloch (Lake Alex.)	800	760	760
Meningie (Lake Alb.)	1 570	1 550	1 490
Goolwa Barrages	1 670	1 650	2 560



## River Levels and Flows

Week ending Wednesday 30 Jan 2019

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	-	-	-	4 480	F	4 540	3 260
Jingellic	4.0	1.72	208.24	4 640	R	4 790	3 540
Tallandoon ( Mitta Mitta River )	4.2	2.65	219.54	5 150	R	5 520	4 790
Heywoods	5.5	2.84	156.47	12 340	F	13 680	13 560
Doctors Point	5.5	2.74	151.21	12 110	F	14 730	14 190
Albury	4.3	1.76	149.20	-	-	-	-
Corowa	4.6	3.05	129.07	14 530	F	13 930	14 150
Yarrowonga Weir (d/s)	6.4	1.52	116.56	8 920	F	9 190	9 070
Tocumwal	6.4	2.18	106.02	9 180	R	8 980	8 870
Torrumbarry Weir (d/s)	7.3	2.58	81.13	7 660	R	7 650	7 530
Swan Hill	4.5	1.45	64.37	7 710	F	7 720	7 550
Wakool Junction	8.8	3.45	52.57	9 640	S	9 480	9 320
Euston Weir (d/s)	9.1	1.56	43.40	7 920	S	7 810	7 870
Mildura Weir (d/s)	-	-	-	6 860	F	6 390	6 540
Wentworth Weir (d/s)	7.3	2.81	27.57	4 970	F	4 790	4 720
Rufus Junction	-	3.58	20.51	7 020	F	6 900	6 900
Blanchetown (Lock 1 d/s)	-	0.68	-	4 260	R	3 630	3 390
<b>Tributaries</b>							
Kiewa at Bandiana	2.8	0.91	154.14	390	F	820	610
Ovens at Wangaratta	11.9	7.87	145.55	340	R	300	350
Goulburn at McCoys Bridge	9.0	2.49	93.91	2 840	S	2 840	2 900
Edward at Stevens Weir (d/s)	5.5	2.40	82.17	2 630	F	2 620	2 640
Edward at Liewah	-	2.95	58.33	2 460	R	2 380	2 210
Wakool at Stoney Crossing	-	1.56	55.05	800	F	820	930
Murrumbidgee at Balranald	5.0	0.80	56.76	450	R	230	360
Barwon at Mungindi	6.1	3.21	-	110	R	20	0
Darling at Bourke	9.0	2.47	-	0	F	0	0
Darling at Burtundy Rocks	-	0.62	-	10	F	10	10

Natural Inflow to Hume	1 030	1 180
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(i.e. Pre Dartmouth &amp; 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	-0.06	-	No. 7 Rufus River	22.10	-0.11	+1.27
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.02	+0.15
No. 15 Euston	47.60	+0.22	-	No. 5 Renmark	16.30	+0.04	+0.21
No. 11 Mildura	34.40	+0.04	+0.20	No. 4 Bookpurnong	13.20	+0.04	+0.69
No. 10 Wentworth	30.80	+0.13	+0.17	No. 3 Overland Corner	9.80	+0.03	+0.21
No. 9 Kulnine	27.40	-0.04	-0.44	No. 2 Waikerie	6.10	+0.02	+0.17
No. 8 Wangumma	24.60	-0.44	-0.04	No. 1 Blanchetown	3.20	+0.05	-0.07

## Lower Lakes FSL = 0.75 m AHD

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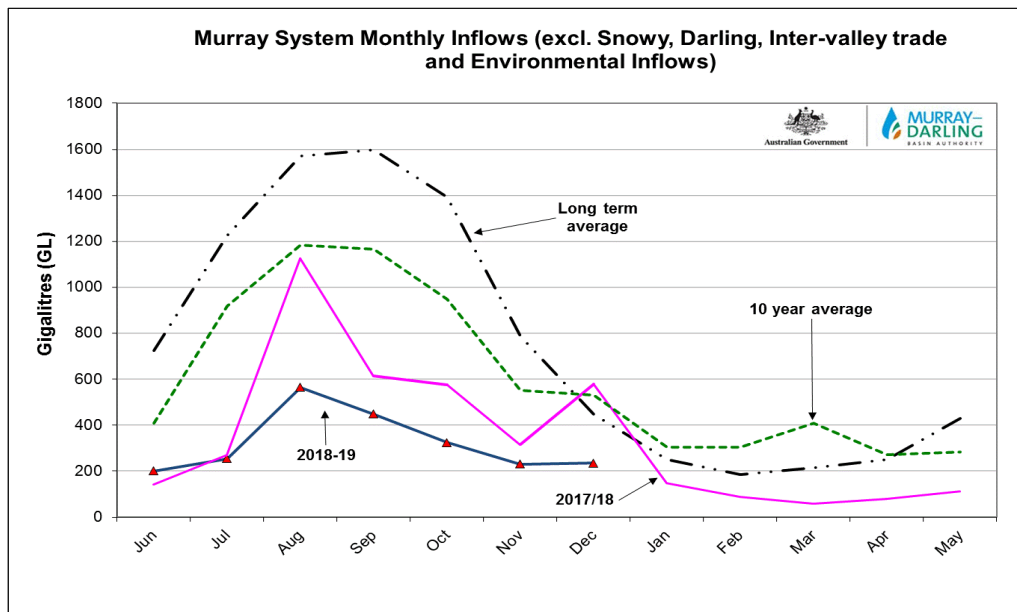
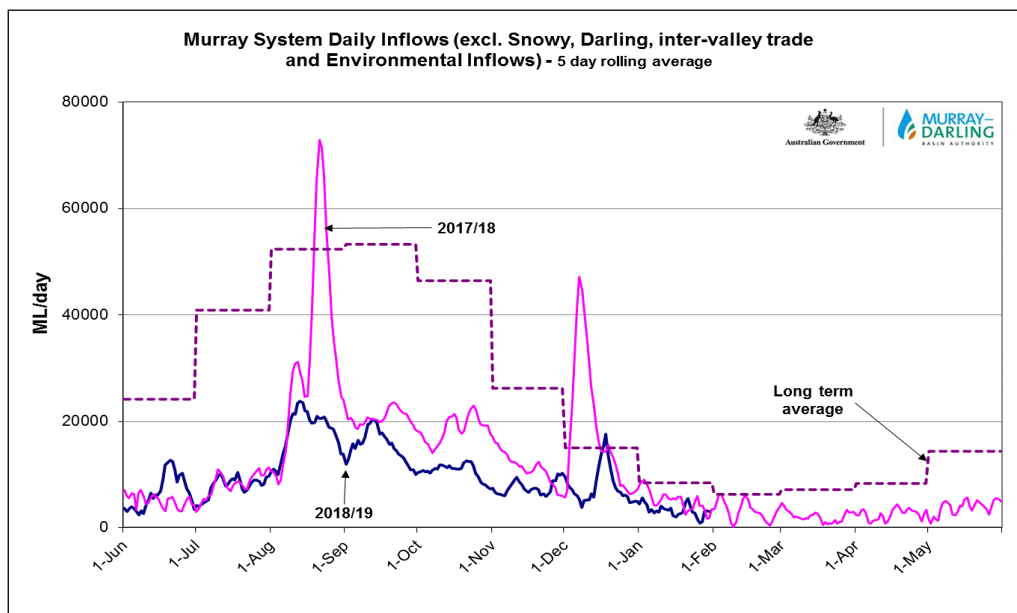
## Barrages

## Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.63	1	-	Open	Open	-
Mundoo	26 openings	0.62	All closed	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	1	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwichee	322 gates	0.68	2	Open	Open	Open	-

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





**State Allocations (as at 30 Jan 2019)**

**NSW - Murray Valley**

High security	97%
General security	0%

**Victorian - Murray Valley**

High reliability	100%
Low reliability	0%

**NSW - Murrumbidgee Valley**

High security	95%
General security	7%

**Victorian - Goulburn Valley**

High reliability	94%
Low reliability	0%

**NSW - Lower Darling**

High security	100%
General security	0%

**South Australia - Murray Valley**

High security	100%
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NSW : <https://www.industry.nsw.gov.au/water/allocations-availability/allocations/summary>

VIC : <http://nvrn.net.au/seasonal-determinations/current>

SA : <http://www.environment.sa.gov.au/managing-natural-resources/river-murray>

