



River Murray Weekly Report

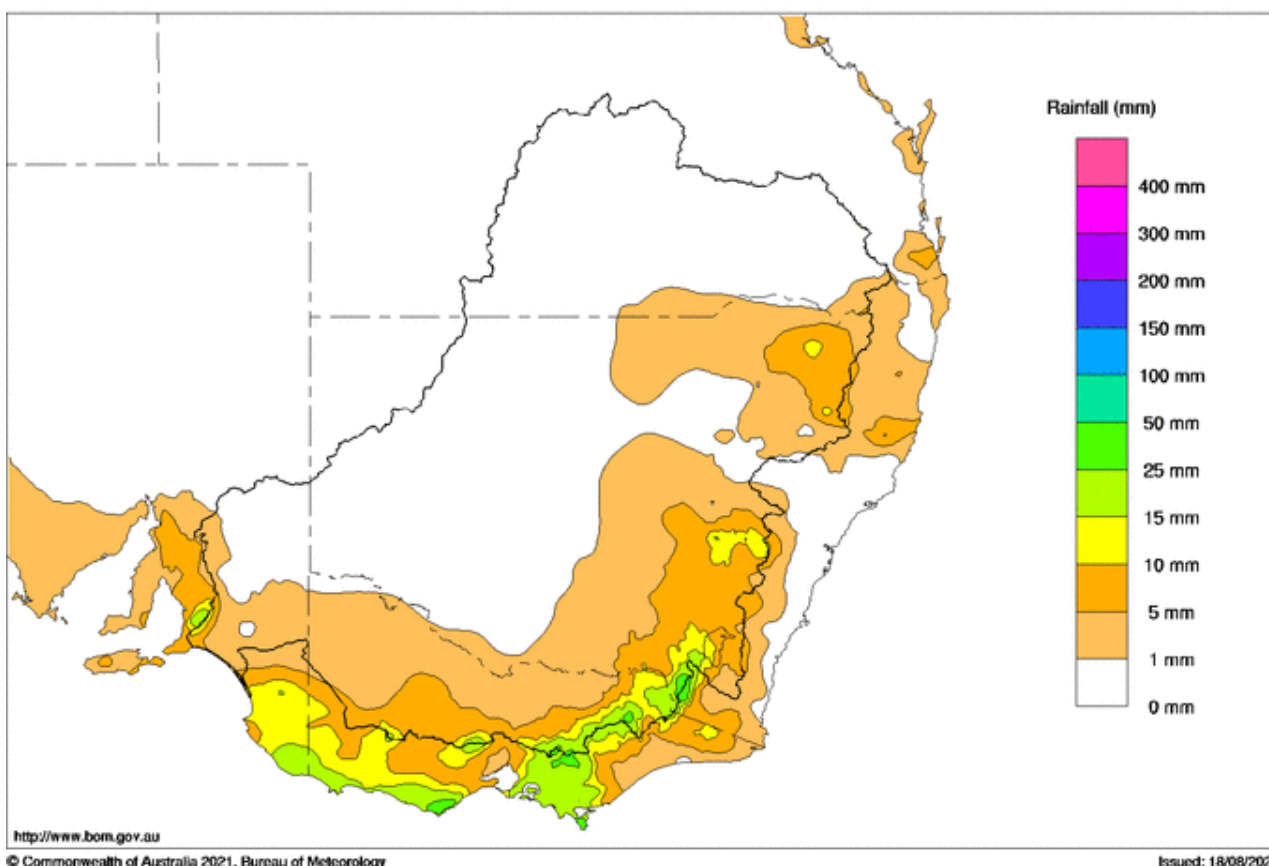
For the week ending Wednesday, 18 August 2021

Trim Ref: D21/32668

Rainfall and inflows

Rainfall recorded in the Murray-Darling Basin this week largely occurred along the Great Dividing Ranges. Highest rainfall totals were recorded in the upper Murray catchments (Map 1). In north east Victoria, 23 mm was recorded at Mount Buller, while in the western Snowy Mountains region of New South Wales, Cabramurra recorded 23 mm.

Murray-Darling Rainfall Totals (mm) Week Ending 18th August 2021
Australian Bureau of Meteorology



Map 1 – Murray-Darling Basin rainfall for the week ending 18th August 2021. (Source: Bureau of Meteorology)

Most upper Murray and Victorian tributary flows have gradually receded over the week. Specific information about flows at key locations can be found at the MDBA’s [River Murray data](#) webpage.

Over the next 8 days, the Bureau of Meteorology (BoM) is [forecasting](#) widespread, moderate rainfall totals across the River Murray System. Please remain aware of changing river levels and any [warnings](#) issued by the BoM.



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River operations

- Pre-releases from Hume Dam stop as water is released at larger rates for the environment
- Water for the environment released to maintain water delivery to the Barmah-Millewa Forest
- Inflows to the Murray from the Ovens, Kiewa, and Goulburn Rivers receding
- Elevated inflows to the Murray from the Murrumbidgee River continue

Airspace pre-releases from Hume Dam cease due to drier weather

Rainfall and wet catchments have delivered increased inflows to Hume Dam over recent weeks, increasing the storage volume to 91% of capacity. This combined with the BoM [outlook](#) for further rain suggests that Hume Dam will fill and there is an increased risk of flooding downstream of Hume this winter-spring. Therefore, the Murray-Darling Basin Authority (MDBA) began small releases from Hume Dam on 7th August 2021 to help slow the rate of fill and maintain some storage airspace to help mitigate flooding that may occur in the coming months.

This week, due to lower rainfall than predicted, release of water from Hume Dam that were being made to maintain airspace were stopped.

In parallel, the Environmental Water Holders ordered water, from 12th August, to meet flow targets downstream of Yarrowonga Weir. Release of water for the environment is expected to continue over the coming weeks to maintain higher flows downstream. These releases are currently close to 9,000 ML/day and will further slow the rate of fill of the storage.

The MDBA will continue to monitor the BoM outlooks and inflows to manage the dam over winter and spring. More information is provided in this MDBA [media release](#).

An overview on how the MDBA is managing Hume Dam during the current high flows is provided in [this video](#). This video update includes:

- catchment conditions
- water releases
- forecast rainfall and inflows
- planned management for the coming week

Further details about [flood management](#) at Hume Dam are available on the MDBA website.

River Levels

River users can monitor River Murray levels and flow forecasts at key locations on the MDBA's [River Murray data](#) webpage to assist in planning any river activities. Up-to-date river data for sites can also be found on BoM's [website](#), at the WaterNSW real-time data [website](#), Victoria's DELWP water monitoring [website](#), South Australia's WaterConnect [website](#) and Queensland's [Water Monitoring Information Portal](#).

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River operations

Total active storage (Figure 1) increased by 166 GL over the last week to 6,792 GL (79% capacity).

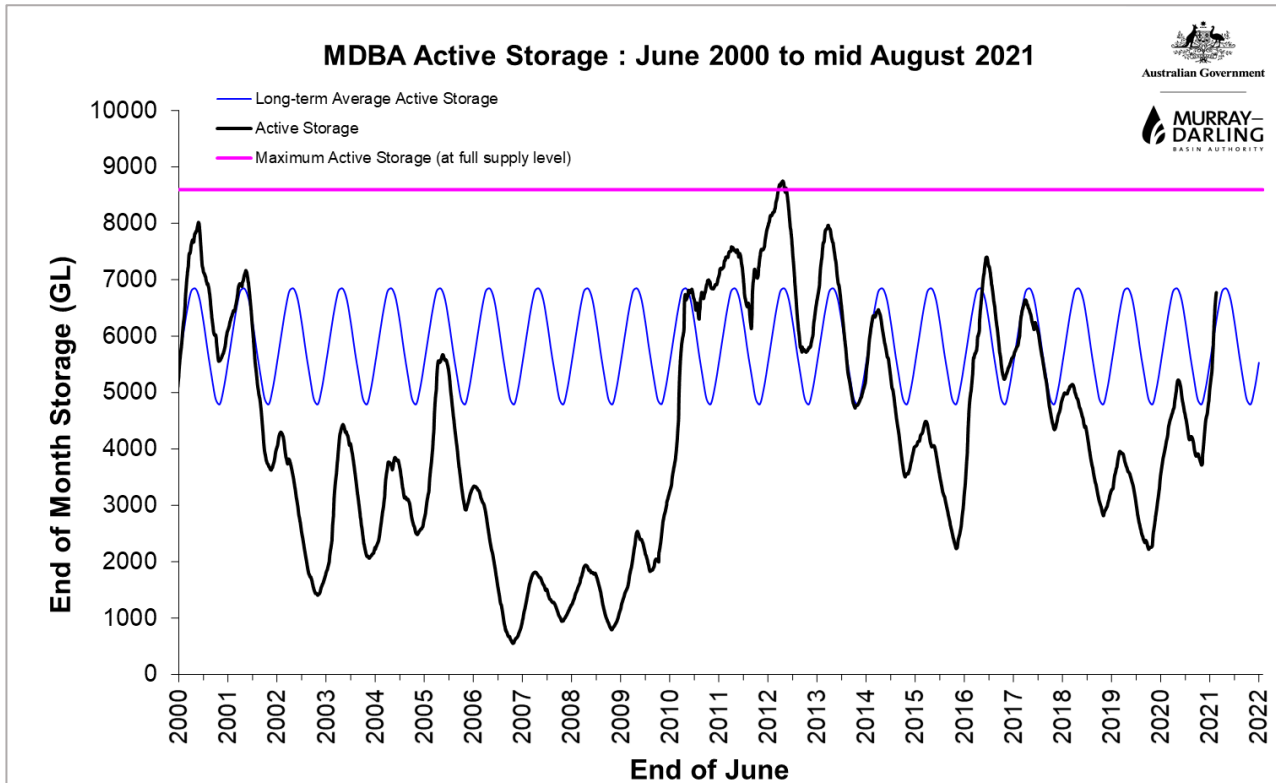


Figure 1: Active Storage chart from June 2020 to mid-August 2021 (MDBA)

At **Dartmouth Reservoir**, the [storage](#) increased by 26 GL to 2,786 GL (72% capacity). A minimum release rate of 200 ML/day has been targeted over the last week, measured at Colemans gauge. Over the coming week AGL will increase the release to 500 ML/day for electricity generation purposes. More information is provided in this [flow advice](#).

Over the past week the **Hume Reservoir** [storage](#) increased by 51 GL to 2,738 GL (91% capacity). This week, the release increased from 4,000 ML/day to 9,000 ML/day. At the start of the week the release was being made to manage the filling of Hume and maintain airspace, an action that started on 7th August. Due to drier conditions persisting, airspace management releases were stopped. From 12th August, releases of water for the environment commenced, on behalf of environmental water holders. The current release of 9,000 ML/day (above the minimum rate of 600 ML/day) is entirely water for the environment. The release may be varied over this coming week in response to forecast rain.

The **Lake Mulwala** level is currently 124.63 m AHD, within the normal operating range (124.6 to 124.9 m AHD). The diversion at Mulwala Canal increased from 1,500 ML/day to 3,550 ML/day as Murray Irrigation Limited (MIL) accessed supplementary licence water to refill their irrigation network and meet early season demands. Goulburn-Murray Water (GMW) diversions increased to approximately 250 ML/day at Yarrawonga Main Channel (YMC) while West Corugan diversions reached near 300 ML/day over the week. As inflows from the Ovens and Kiewa Rivers continued to recede, the release downstream of Yarrawonga Weir decreased this week from around 18,000 ML/day to 14,000 ML/day. The small volume of airspace releases from Hume contributed to inflows to the weir. However, larger volumes of water for the environment released from Hume maintained the flow at 14,000 ML/day and will increase the downstream flow to 15,000 ML/day in the coming week.



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Water for the environment aims to maintain water depth in the Murray River downstream of Yarrawonga Weir for improved native fish habitat, support floodplain vegetation and improve river connectivity. Forest regulators will remain open to deliver water to the **Barmah and Millewa forests** and manage the river level below the capacity of the Barmah Choke.

At the **Kolety** (pronounced Kol-etch)/**Edward River** offtake, the flow fell to 1,800 ML/day in response to falling river levels in the River Murray. At **Gulpa Creek** offtake the gates are clear of the water and the flow is near 800 ML/day. Further downstream on the **Kolety/Edward River** the flow at Toonalook receded from the peak of around 6,800 ML/day to the current flow rate near 5,500 ML/day. Flow rates are being boosted by water returning from the River Murray via the Millewa forest. The flow at Toonalook will continue to reduce over the coming week.

At **Stevens Weir**, the pool level is within the normal operating range and providing access to supplementary water in the Wakool Canal and in the Wakool River, Yallakool Creek and Colligen Creek. Flow downstream of Stevens Weir fell from 5,700 ML/day to the current rate near 3,450 ML/day and is expected continue falling in the week ahead.

On the **Goulburn River**, the flow measured at [McCoys Bridge](#) receded from a peak of 6,000 ML/day to 4,200 ML/day this week. Improved tributary inflows were the result of recent rainfall in the catchment. The flow is forecast to continue to recede over the coming week. For more information see the [Goulburn-Murray Water website](#). Information regarding opportunities for allocation trade between the Goulburn and Murray Valleys is available at the Victorian water register [website](#).

[Diversions](#) to **National Channel** averaged 1,100 ML/day this week and are expected to increase as unregulated flows are accessed to fill Victorian mid-Murray storages ahead of the peak irrigation season. The release from **Torrumbarry Weir** increased to peak near 18,900 ML/day before decreasing to the current rate of around 17,800 ML/day. The release will continue to fall over the coming week.

The **Torrumbarry Weir pool** is at 14 cm below the full supply level (FSL) and is being raised back to FSL over the coming week. The weir was being held between 30 cm below FSL and FSL over winter as part of the weir pool variability program. Varying pool levels helps restore a more natural wetting and drying cycle to riverbanks and adjacent wetlands within the influence of the weir pool.

As conditions change with river levels or weir pools, river users and landholders should remain aware of the changing water level in case adjustments need to be made to pumps, moorings and recreational activities.

In the upper Murrumbidgee, WaterNSW has advised that both Blowering and Burrinjuck Dams are effectively full. Releases from both storages are being managed in response to higher inflows to maintain airspace for flood mitigation purposes. More information is available at [WaterInsights](#). WaterNSW has announced access to **supplementary water** for the [Murrumbidgee River](#) and for the [Murray River](#) reaches.

Inflow from the **Murrumbidgee River** measured at [Balranald](#) averaged around 7,100 ML/day this week and is expected to remain around this rate over the coming week. The [Murrumbidgee IVT](#) balance is open for trade from the Murray to the Murrumbidgee but remains closed to trade from the Murrumbidgee to the Murray.

At **Euston Weir**, the [weir pool level](#) is currently targeting FSL. The [downstream release](#) averaged 25,200 ML/day as higher flows continue to arrive from upstream. The flow is expected to increase further over the coming week.

At **Menindee Lakes**, total volume in [storage](#) increased this week to 1,327 GL (77% capacity).

Inflows to Menindee Lakes continue to increase with the flow upstream at Wilcannia currently around 15,800 ML/day. Recent rainfall across several NSW tributaries of the Darling River has resulted in additional flow into the system that will further boost inflows to the Menindee Lakes over the coming weeks. WaterNSW is forecasting that Menindee Lakes are likely to fill and spill over the months ahead.

Environmental water holders are using entitlements to maintain higher releases from Menindee Lakes with a target flow at Weir 32 of 500 ML/day. This compares with the normal winter minimum release of 200 ML/day. This higher flow rate is being maintained to benefit native fish in the Barka/lower Darling River during July and into August.



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Over the coming months, the MDBA will continue to revise forecasts and operational plans to determine the volume and timing of water released from Menindee Lakes to support the River Murray System. This process will be on-going and will take account of the operating rules of the Murray-Darling Basin Agreement, the '[Objectives and Outcomes for River Operations in the River Murray System](#)' as well as the more specific opportunities and risks driven by system conditions, water security, delivery efficiency, and environmental and community considerations. Further updates are provided in the [Annual Operating Outlook](#) (which was published on the MDBA website this week). Updates will be provided in future Weekly Reports as updated plans and release decisions are made. More information on the management of Menindee Lakes is also available in a [webinar](#) hosted by the MDBA.

At **Wentworth Weir**, the weir pool level continues to be managed around FSL. The downstream averaged near 25,000 ML/day this week. Flows are expected to rise over the coming week. Just upstream of Wentworth Weir at Curlwaa, the Abbotsford Bridge was closed in mid-July for 6 weeks. This is to allow essential maintenance work to replace the existing timber deck of the lift span. More information can be found [here](#).

At **Lock 9** the weir pool has been raised to a level around 10 cm above FSL to help maximise diversions into Lake Victoria as higher flows arrive from upstream. The **Lock 8** weir pool is currently 20 cm above FSL and will be raised to around 80 cm above FSL from August to November to inundate the Mulcra floodplain and other wetlands adjacent to the weirpool. **Lock 7** is targeting around 60 cm above FSL to increase flow into the Lindsay River to facilitate pumping of water for the environment into Lake Wallawalla.

The [storage](#) at **Tar-ru/Lake Victoria** increased by 15 GL to 615 GL (91% capacity). Inflows to Tar-ru/Lake Victoria are now being gradually increased to manage the filling of Lake Victoria by the end of the unregulated flow event in the River Murray.

The [flow](#) to **South Australia** is currently near 22,000 ML/day and forecast to increase over the coming week. The required flow to South Australia continues to be exceeded, with [unregulated flow](#) available on the River Murray downstream of Hume Reservoir and on the Edward System. Unregulated flows are expected to cease in the upstream reaches early in the coming week, then progressively downstream. Any extensions to the announcement of unregulated flow will be subject to on-going rain and elevated inflows. General information on River Murray unregulated flows can be accessed on the MDBA [webpage](#). Information on access to Murray supplementary water licences in NSW is available from [WaterNSW Water insights](#).



Photo 1 – Seals sunbaking near the Goolwa Barrages (Photo courtesy: Jamie Walker, MDBA)



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Photo 2 – Goolwa Barrage, one of the South Australian barrages between the Lower Lakes and Coorong, Murray Mouth (Photo courtesy: Jamie Walker, MDBA).

The **Lower Lakes** 5-day average water level is 0.79 m AHD. Barrage releases will continue to be made, when conditions allow, to push fresh water into the Coorong to support a productive environment for fish and birds. For information on barrage releases and South Australia's Entitlement flow, see the South Australian Department for Environment and Water Weekly [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 18 Aug 2021

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	468.04	2 786	72%	71	2 715	+26
Hume Reservoir	192.00	3 005	190.64	2 738	91%	23	2 715	+51
Lake Victoria	27.00	677	26.49	615	91%	100	515	+15
Menindee Lakes		1 731*		1 327	77%	(480 #)	847	+73
Total		9 269		7 466	81%	--	6 792	+166
Total Active MDBA Storage							79% ^	

Major State Storages

Burrinjuck Reservoir	1 026	917	89%	3	914	+5
Blowering Reservoir	1 631	1 555	95%	24	1 531	-46
Eildon Reservoir	3 334	2 393	72%	100	2 293	+39

* 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 17 Aug 2021

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2021
Lake Eucumbene - Total	919	+66	Snowy-Murray	+4	333
Snowy-Murray Component	420	+15	Tooma-Tumut	+10	102
Target Storage	1 190		Net Diversion	-6	231
			Murray 1 Release	+13	438

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2021	Victoria	This Week	From 1 July 2021
Murray Irrig. Ltd (Net)	29.3	78	Yarrowonga Main Channel (net)	1.1	4
Wakool Sys Allowance	0.0	1	Torrumbarry System + Nyah (net)	0	0
Western Murray Irrigation	0.1	0	Sunraysia Pumped Districts	0.5	2
Licensed Pumps	3.2	12	Licensed pumps - GMW (Nyah+u/s)	0.2	0
Lower Darling	0.0	0	Licensed pumps - LMW	2.1	6
TOTAL	32.6	91	TOTAL	3.9	12

* 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	124.0 *	
Flow this week	148.3	(21 200 -ML/day)
Flow so far this month	305.4	
Flow last month	182.0	

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

	Current	Average over the last week	Average since 1 August 2021
Swan Hill	80	80	90
Euston	-	-	-
Red Cliffs	130	120	110
Merbein	120	110	100
Burtundy (Darling)	290	290	300
Lock 9	120	110	120
Lake Victoria	150	150	140
Berri	120	130	140
Waikerie	160	170	210
Morgan	210	220	250
Mannum	260	280	300
Murray Bridge	290	290	320
Milang (Lake Alex.)	710	720	720
Poltalloch (Lake Alex.)	780	620	600
Meningie (Lake Alb.)	1 550	1 560	1 530
Goolwa Barrages	1 210	1 770	2 950



River Levels and Flows

Week ending Wednesday 18 Aug 2021

	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)				
River Murray							
Khancoban	-	-	-	4 620	R	3 800	3 350
Jingellic	4.0	2.37	208.89	10 590	R	11 150	14 330
Tallandoon (Mitta Mitta River)	4.2	1.79	218.68	1 540	F	1 720	2 200
Heywoods	5.5	2.74	156.37	9 000	S	6 380	2 660
Doctors Point	5.5	2.79	151.26	11 830	F	9 500	6 710
Albury	4.3	1.82	149.26	-	-	-	-
Corowa	4.6	2.65	128.67	12 420	R	8 700	6 620
Yarrowonga Weir (d/s)	6.4	2.14	117.18	14 090	S	15 020	20 970
Tocumwal	6.4	2.81	106.65	14 780	F	16 530	23 220
Torrumbarry Weir (d/s)	7.3	4.92	83.47	17 770	F	18 420	16 970
Swan Hill	4.5	3.04	65.96	18 290	R	17 300	16 700
Wakool Junction	8.8	5.67	54.79	22 630	R	21 540	20 200
Euston Weir (d/s)	9.1	3.89	45.73	25 660	R	25 180	23 680
Mildura Weir (d/s)	-	-	-	24 250	F	25 210	23 000
Wentworth Weir (d/s)	7.3	4.27	29.03	25 750	R	25 190	21 990
Rufus Junction	-	5.36	22.29	21 200	R	20 510	15 850
Blanchetown (Lock 1 d/s)	-	1.40	-	20 250	R	18 730	13 020
Tributaries							
Kiewa at Bandiana	2.8	2.32	155.55	2 580	F	2 930	3 990
Ovens at Wangaratta	11.9	9.81	147.49	6 110	F	7 260	12 030
Goulburn at McCoys Bridge	9.0	3.17	94.59	4 190	F	5 120	5 050
Edward at Stevens Weir (d/s)	5.5	2.81	82.59	3 440	F	4 720	5 180
Edward at Liewah	-	3.70	59.08	3 690	R	3 380	2 590
Wakool at Stoney Crossing	-	2.19	55.68	3 060	R	2 250	850
Murrumbidgee at Balranald	5.0	5.15	61.11	7 190	S	7 140	7 060
Barwon at Mungindi	6.1	5.87	-	7 020	R	5 620	6 900
Darling at Bourke	9.0	7.43	-	21 540	R	20 670	18 210
Darling at Burtundy Rocks	-	0.85	-	430	R	430	450

Natural Inflow to Hume	18 270	25 490
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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	-0.27	-	No. 7 Rufus River	22.10	+0.60	+3.04
No. 26 Torrumbarry	86.05	-0.14	-	No. 6 Murtho	19.25	+0.19	-25.30
No. 15 Euston	47.60	-0.05	-	No. 5 Renmark	16.30	+0.41	+1.04
No. 11 Mildura	34.40	+0.01	+1.35	No. 4 Bookpurnong	13.20	+0.30	+1.84
No. 10 Wentworth	30.80	+0.01	+1.63	No. 3 Overland Corner	9.80	+0.08	+1.46
No. 9 Kulnine	27.40	+0.16	+1.01	No. 2 Waikerie	6.10	+0.56	+1.25
No. 8 Wangumma	24.60	+0.21	+1.54	No. 1 Blanchetown	3.20	+0.09	+0.65

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.79
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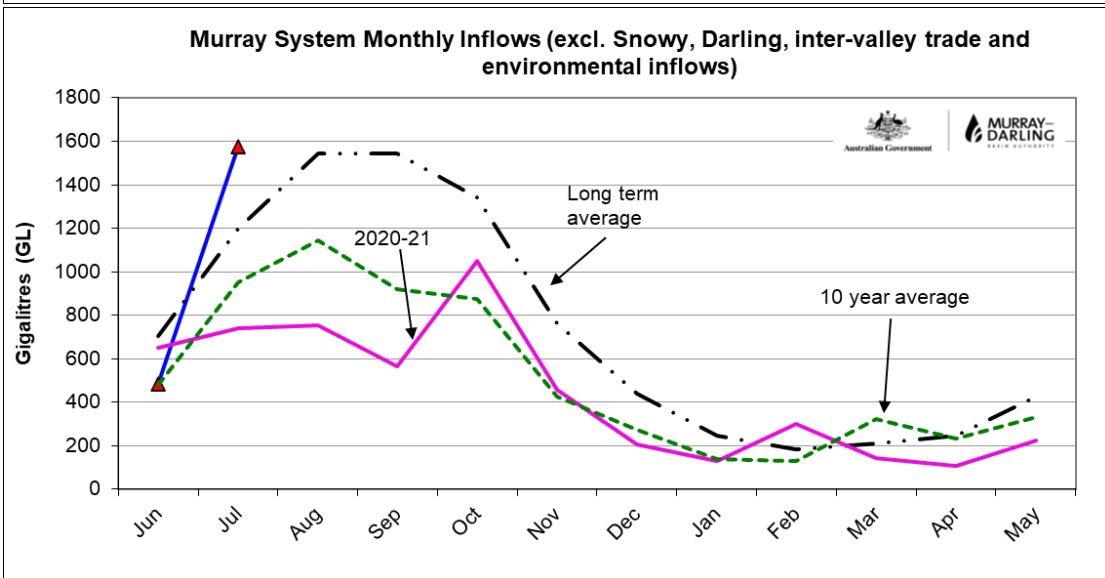
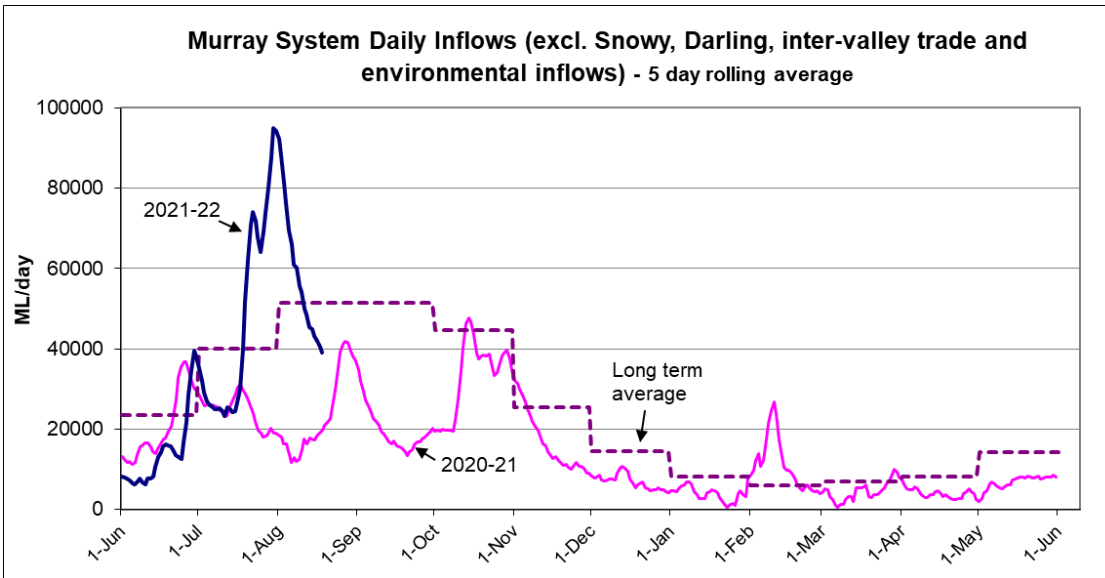
Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.81	5	-	Open	Open	-
Mundoo	26 openings	0.71	6	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	1	-	Open	-	-
Ewe Island	111 gates	-	12	-	-	-	Open
Tauwichee	322 gates	0.80	21	Open	Open	Open	-

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





State Allocations (as at 18 Aug 2021)

NSW - Murray Valley

High security	97%
General security	30%

Victorian - Murray Valley

High reliability	52%
Low reliability	0%

NSW – Murrumbidgee Valley

High security	95%
General security	52%

Victorian - Goulburn Valley

High reliability	66%
Low reliability	0%

NSW - Lower Darling

High security	100%
General security	100%

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 : <https://www.environment.sa.gov.au/topics/river-murray/water-allocations-and-announcements>

