



River Murray Weekly Report

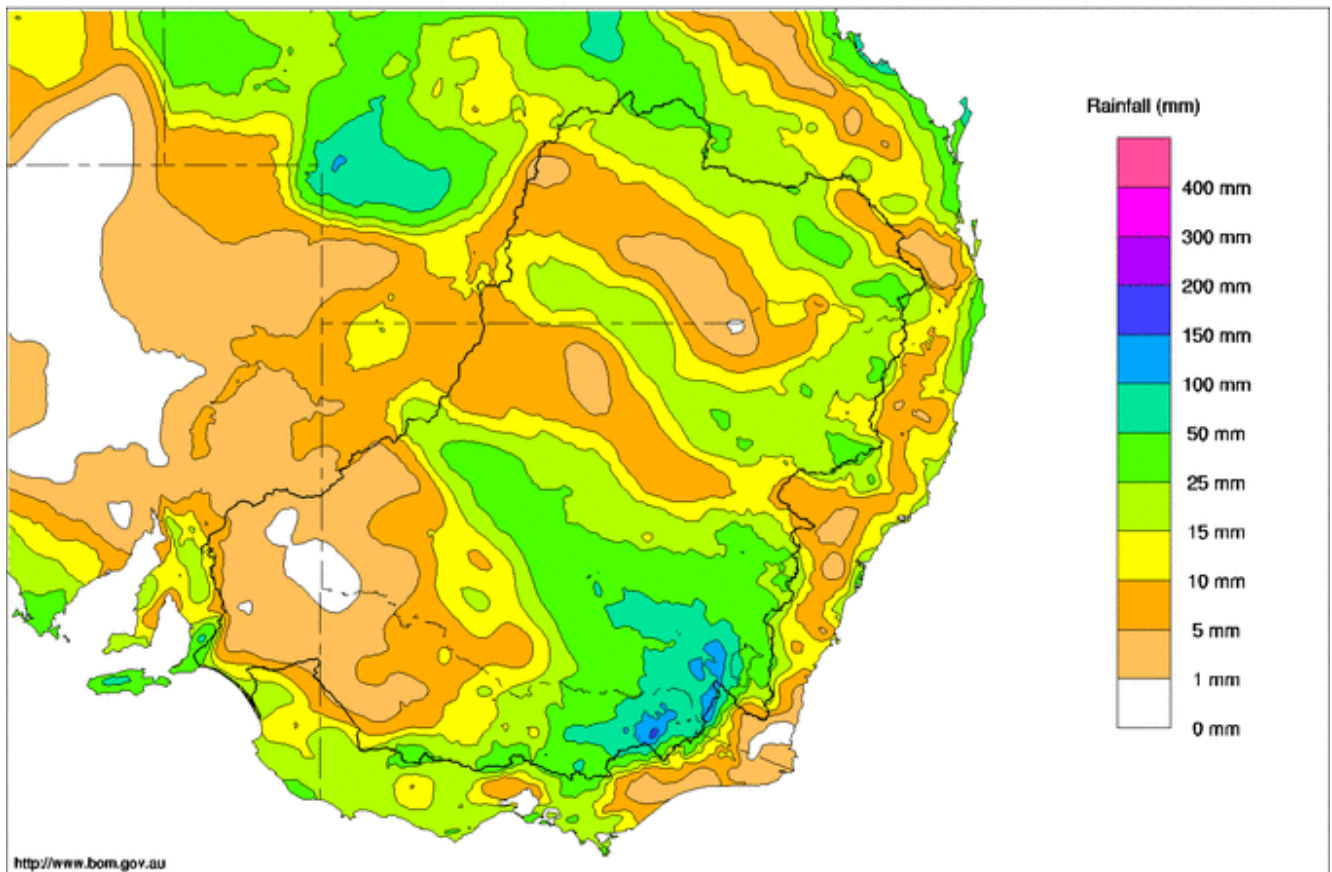
For the week ending Wednesday, 30 June 2021

Trim Ref: D21/26651

Rainfall and inflows

Rainfall was widespread across the Murray Darling Basin this week, with the heavy totals recorded along in the upper Murray and upper Murrumbidgee catchments (Map 1). On the south-west slopes of New South Wales, Burrinjuck Dam on the Murrumbidgee River recorded 93 mm, and just outside of the upper Murray catchment, Perisher Valley received 149 mm. In northeast Victoria, Mt Buffalo in the upper Ovens river catchment recorded 161mm and of this, 116 mm fell within 24 hours.

Murray-Darling Rainfall Totals (mm) Week Ending 30th June 2021
Australian Bureau of Meteorology



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Map 1 – Murray-Darling Basin rainfall for the week ending 30 June 2021. Source: Bureau of Meteorology.

High rainfall totals resulted in significant streamflow increases in the Mitta Mitta, upper Murray, Kiewa and Ovens rivers, with the Kiewa River at Bandiana reaching minor flood level over the weekend. Specific information about flows at key locations can be found at the MDBA’s [River Murray data](#) webpage. Over the coming days, the Bureau of Meteorology is [forecasting](#) further rainfall, with totals between 10-25 mm across the Great Dividing ranges.

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River operations

- Inflows from Ovens and Kiewa rivers increase Yarrawonga weir releases above channel capacity
- Barmah-Millewa forest regulators opened to manage river levels
- Murrumbidgee River inflows increase from rain and releases from Burrinjuck and Blowering dams
- Mildura Weir pool lowering planned for mid-July
- State water allocation announced for the new water year (commencing 1 July 2021)

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](#) and South Australia's WaterConnect [website](#).

Water quality impacts

The Murray and Lower Darling Regional Algal Coordinating Committee has amber alerts in place for **blue-green algae** at several sites on the River Murray and Kolety/Edward-Wakool River systems. The locations of these sites are available on the [WaterNSW](#) website. It is important that water users regularly keep up to date with algal alerts, notices, and health warnings. This information is available through [Goulburn-Murray Water](#) and [WaterNSW](#).

River operations

Total **active storage** increased by 205 GL over the last week to 5,059 GL (59% capacity).

At **Dartmouth Reservoir**, the [storage](#) increased 44 GL last week to 2,555 GL (66% capacity). The release, measured at Colemans gauge, is continuing to target 250 ML/day. This week, the Mitta Mitta at Tallandoon reached a peak of 3,000 ML/day following local rainfall and inflows from the Snowy Creek.

Over the past week the **Hume Reservoir** [storage](#) increased by 154 GL to 1,716 GL (57% capacity). The release has remained at the minimum of 600 ML/day and will continue at the minimum rate over the coming week as increased natural inflows from the Kiewa and Ovens Rivers meet and exceed the required flow in the Murray downstream.

The **Lake Mulwala** level is currently near 124.72 m AHD, within the normal operating range (124.6 to 124.9 m AHD). Diversions to Mulwala Canal briefly continued at 500 ML/day, before ceasing diversions mid-week. On the Victorian side, there has been no diversion to Yarrawonga Main Channel since 15 May. As high inflows from the Ovens and Kiewa rivers reached the Yarrawonga weir pool, the release from **Yarrawonga Weir** increased from 5,000 ML/day to the current peak release rate of 12,500 ML/day. With no further rain, the release will be gradually eased over the coming weeks back towards lower rates near 4,000 ML/day.

With Yarrawonga releases exceeding 9,000 ML/day (approximate downstream channel capacity), forest regulators in the **Barmah and Millewa forests** were opened to manage river levels. Regulators will remain open over the coming week to accommodate flows up to 12,500 ML/day.

The regulator gates at **Kolety** (pronounced Kol-etch)/**Edward River** and **Gulpa Offtakes** have been reinstated this week to manage flows at 1,500 ML/day and 250 ML/day, respectively, in response to increased releases downstream of Yarrawonga. Downstream on the Kolety/Edward River at **Stevens Weir**, the pool is being lowered to facilitate maintenance works in the coming week. Whilst the pool is lowered, and flow in the Kolety/Edward River is low, there will be no flow into Wakool River or Yallakool and Colligen Creeks. Flows downstream of Stevens Weir have been near 600 ML/day and are expected to increase over the coming week as higher Kolety/Edward River and Gulpa Creek offtake flows travel downstream.

On the **Goulburn River**, the flow measured at [McCoys Bridge](#) averaged around 1,200 ML/day. The flow is being managed above the normal minimum flow of 350 ML/day for the benefit of native fish in the lower Goulburn River, using entitlements held by environmental water holders. 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](#).



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[Diversions](#) to **National Channel** have averaged around 350 ML/day for the week and are expected to remain at this level over the coming fortnight. Water is being used to maintain base flows in the Pyramid Creek system and Kerang Weir on behalf of environmental water holders. The release from **Torrumbarry Weir** averaged around 5,700 ML/day and is forecast to increase to around 7,000 ML/day in the coming week as higher River Murray flows travel downstream.

The Torrumbarry Weir pool has been lowered to 85.75 m AHD, around 30 cm below the full supply level (FSL). The pool will continue to be varied between 30 cm below FSL and FSL over the coming month as part of the weir pool variability program. Over the coming week the pool level is expected to be around 20 to 30 cm below FSL. Varying pool levels helps restore a more natural wetting and drying cycle to riverbanks and adjacent wetlands within the influence of the weir pool. The lowering of the pool also assisted Goulburn-Murray Water with maintenance works at the weir in mid-June. River users and landholders in the weir pool 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, Blowering and Burrinjuck storages levels have continued to increase and are both at 96%. WaterNSW has extended access to [supplementary water](#) for the Murrumbidgee River and Yanco Creek in response to flows boosted by on-going inflows and airspace management releases at Blowering Dam.

Inflow from the **Murrumbidgee River**, measured at [Balranald](#) increased from 480 ML/day to 1,100 ML/day this week. Over the coming weeks flows are expected to gradually increase and reach near 7,000 ML/day. The elevated flows are a combination of releases made from Blowering and Burrinjuck storage several weeks ago and recent heavy rainfall downstream of the storages. The [Murrumbidgee IVT](#) balance is open for trade from the Murray to the Murrumbidgee (92.4 GL) but remains closed to trade from the Murrumbidgee to the Murray.

At **Euston Weir**, the [weir pool level](#) is targeting around 20 to 30 cm below the FSL as part of normal weir pool variability. The [downstream release](#) has averaged 7,500 ML/day and is forecast to increase over the coming week with increase inflows from the Murrumbidgee River.



Photo 1 – Great Darling Anabranch, with flows backed up from River Murray Lock 9 weir pool (Photo courtesy Tyson Milne)



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At **Mildura Weir**, essential maintenance works will be undertaken in July. To enable these works, the weir will be lowered, and the trestles removed. Lowering will commence on Monday 12 July. The last boat passage through the Mildura Lock will be 4:30 pm on Tuesday 13 July. The pool will return to FSL by mid-August. More information is available [here](#).

At **Menindee Lakes**, total volume in storage remained steady at 1088 GL (63% capacity) this week. WaterNSW are managing the inflows and releases from the storage to ensure Lake Wetherell and Lake Pamamaroo are storing the maximum volume possible when inflows cease. More information is available from WaterNSW's [WaterInsights](#).

Inflows to Menindee Lakes have continued to ease over the week with the flow upstream at Wilcannia currently around 1,400 ML/day. Recent rainfall across several NSW tributaries to the Darling have resulted in small flow responses and additional inflow into the system. This is likely to maintain modest inflows to the Menindee Lakes over the coming weeks.

Environmental water holders are using entitlements to maintain a target flow at Weir 32 of 500 ML/day – slightly above the normal required minimum. This action will benefit native fish in the Barka/lower Darling River during July.

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 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 will be provided in the Annual Operating Outlook (published by the MDBA at the end of July) and 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 in May 2021.

At **Wentworth Weir**, the weir pool level continues to be managed around FSL. The downstream flow averaged 6,900 ML/day. Just upstream of Wentworth Weir at Curlwaa, the Abbotsford Bridge will be closed in mid-July for up to 10 weeks. This is to allow essential maintenance work to upgrade its mechanical lift span. More information can be found [here](#).

At **Lock 9** the weir pool continues to vary around the FSL. The **Lock 8** weir pool is currently around 35 cm below FSL. **Lock 7** is targeting around 55 cm above FSL and will continue to vary near this level to facilitate increased flows into Lindsay River and enable pumping into Lake Wallawalla during June for environmental outcomes.

The [storage](#) at **Tar-ru/ Lake Victoria** increased by 6 GL to 374 GL (55% capacity). The storage volume will continue increasing during July as inflows from upstream River Murray tributaries and the release of water from the Mildura weir drawdown is captured for re-regulation in the lake.

The [flow](#) to **South Australia** is currently targeting 6,700 ML/day. The flow is forecast to ease in the coming week as varied rates of water for the environment are delivered during July, along with Entitlement and trades.

The **Lower Lakes** 5-day average water level is 0.73 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



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Water in Storage

Week ending Wednesday 30 Jun 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	463.63	2 555	66%	71	2 484	+44
Hume Reservoir	192.00	3 005	184.51	1 716	57%	23	1 693	+154
Lake Victoria	27.00	677	24.30	374	55%	100	274	+6
Menindee Lakes		1 731*		1 088	63%	(480 #)	608	+1
Total		9 269		5 733	62%	--	5 059	+205
Total Active MDBA Storage							59% ^	

Major State Storages

Burrinjuck Reservoir	1 026	986	96%	3	983	+123
Blowering Reservoir	1 631	1 570	96%	24	1 546	+41
Eildon Reservoir	3 334	1 943	58%	100	1 843	+28

* 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 Jun 2021

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2021
Lake Eucumbene - Total	646	+19	Snowy-Murray	+35	223
Snowy-Murray Component	433	+2	Tooma-Tumut	+11	36
Target Storage	1 240		Net Diversion	24	187
			Murray 1 Release	+47	273

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)	1.5	628	Yarrowonga Main Channel (net)	0	211
Wakool Sys Allowance	0.0	112	Torrumbarry System + Nyah (net)	0.7	355
Western Murray Irrigation	0.0	27	Sunraysia Pumped Districts	0.2	109
Licensed Pumps	n/a	266	Licensed pumps - GMW (Nyah+u/s)	n/a	48
Lower Darling	n/a	3	Licensed pumps - LMW	0.6	435
TOTAL	1.5	1036	TOTAL	1.5	1158

* 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	90.0 *	
Flow this week	40.2	(5 700 ML/day)
Flow so far this month	116.3	
Flow last month	126.6	

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

	Current	Average over the last week	Average since 1 August 2020
Swan Hill	90	90	90
Euston	-	-	-
Red Cliffs	110	110	120
Merbein	110	110	130
Burtundy (Darling)	350	340	400
Lock 9	150	170	130
Lake Victoria	130	130	120
Berri	210	200	170
Waikerie	320	320	220
Morgan	330	310	230
Mannum	300	280	240
Murray Bridge	320	330	260
Milang (Lake Alex.)	750	740	750
Poltalloch (Lake Alex.)	570	560	960
Meningie (Lake Alb.)	1 280	1 350	1 650
Goolwa Barrages	2 360	3 880	1 680



River Levels and Flows

Week ending Wednesday 30 Jun 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	-	-	-	9 260	S	9 280	6 940
Jingellic	4.0	2.92	209.44	16 230	F	17 880	10 780
Tallandoon (Mitta Mitta River)	4.2	1.66	218.55	1 170	F	1 510	700
Heywoods	5.5	1.52	155.15	600	S	600	600
Doctors Point	5.5	2.01	150.48	4 100	F	3 940	2 230
Albury	4.3	1.11	148.55	-	-	-	-
Corowa	4.6	1.38	127.40	5 030	R	3 940	2 680
Yarrowonga Weir (d/s)	6.4	1.96	117.00	12 570	S	8 810	5 860
Tocumwal	6.4	2.39	106.23	11 440	R	7 240	5 550
Torrumbarry Weir (d/s)	7.3	1.91	80.46	5 240	F	5 780	4 950
Swan Hill	4.5	1.26	64.18	6 400	R	5 760	4 610
Wakool Junction	8.8	2.79	51.91	7 190	R	6 770	5 600
Euston Weir (d/s)	9.1	1.44	43.28	7 760	F	7 490	6 290
Mildura Weir (d/s)	-	-	-	6 750	F	6 430	5 860
Wentworth Weir (d/s)	7.3	2.89	27.65	7 020	S	6 930	7 450
Rufus Junction	-	3.44	20.37	6 380	F	5 360	3 620
Blanchetown (Lock 1 d/s)	-	0.72	-	5 160	R	5 020	3 100
Tributaries							
Kiewa at Bandiana	2.8	2.69	155.92	3 310	F	3 580	1 620
Ovens at Wangaratta	11.9	9.99	147.67	6 720	F	7 390	2 510
Goulburn at McCoys Bridge	9.0	1.69	93.11	1 320	R	1 210	1 180
Edward at Stevens Weir (d/s)	5.5	0.02	79.79	0	F	190	270
Edward at Liewah	-	1.79	57.17	1 090	F	1 110	1 110
Wakool at Stoney Crossing	-	1.23	54.72	150	S	160	220
Murrumbidgee at Balranald	5.0	1.52	57.48	1 100	R	610	760
Barwon at Mungindi	6.1	3.71	-	1 630	F	1 900	2 180
Darling at Bourke	9.0	4.72	-	5 190	R	3 010	1 680
Darling at Burtundy Rocks	-	0.88	-	520	F	650	1 440

Natural Inflow to Hume	26 280	8 550
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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	-0.18	-	No. 7 Rufus River	22.10	+0.57	+1.13
No. 26 Torrumbarry	86.05	-0.30	-	No. 6 Murtho	19.25	+0.11	+0.12
No. 15 Euston	47.60	-0.30	-	No. 5 Renmark	16.30	+0.03	+0.17
No. 11 Mildura	34.40	+0.05	+0.20	No. 4 Bookpurnong	13.20	+0.02	+0.65
No. 10 Wentworth	30.80	+0.07	+0.25	No. 3 Overland Corner	9.80	+0.03	+0.22
No. 9 Kulnine	27.40	-0.06	-0.35	No. 2 Waikerie	6.10	+0.00	+0.17
No. 8 Wangumma	24.60	-0.38	+0.61	No. 1 Blanchetown	3.20	-0.00	-0.03

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.73
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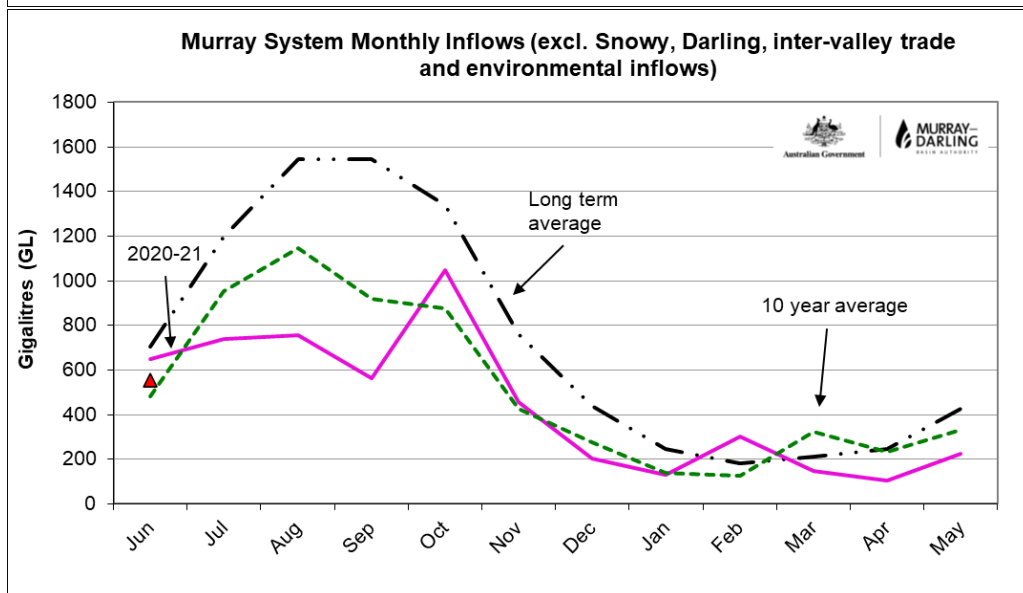
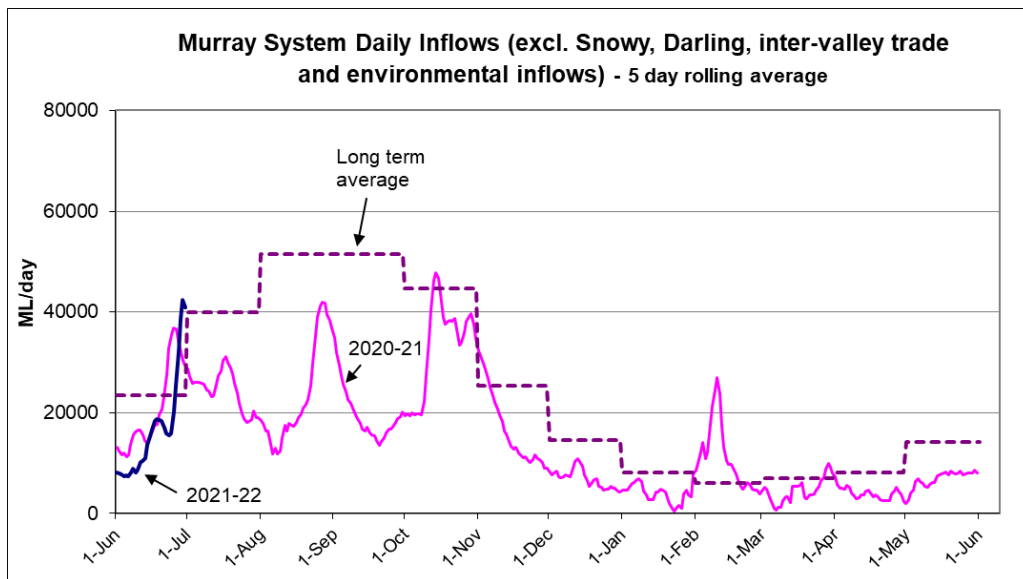
Barrages

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	1	-	Open	Open	-
Mundoo	26 openings	0.80	All closed	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	All closed	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwichee	322 gates	0.80	6	Open	Open	Open	-

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





State Allocations (as at 1 Jul 2021 – updated to reflect State allocations for water year commencing 1 July 2021)

NSW - Murray Valley

High security	97%
General security	3%

Victorian - Murray Valley

High reliability	21%
Low reliability	0%

NSW – Murrumbidgee Valley

High security	95%
General security	30%

Victorian - Goulburn Valley

High reliability	33%
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-allocation/current-allocations>

