



River Murray Weekly Report

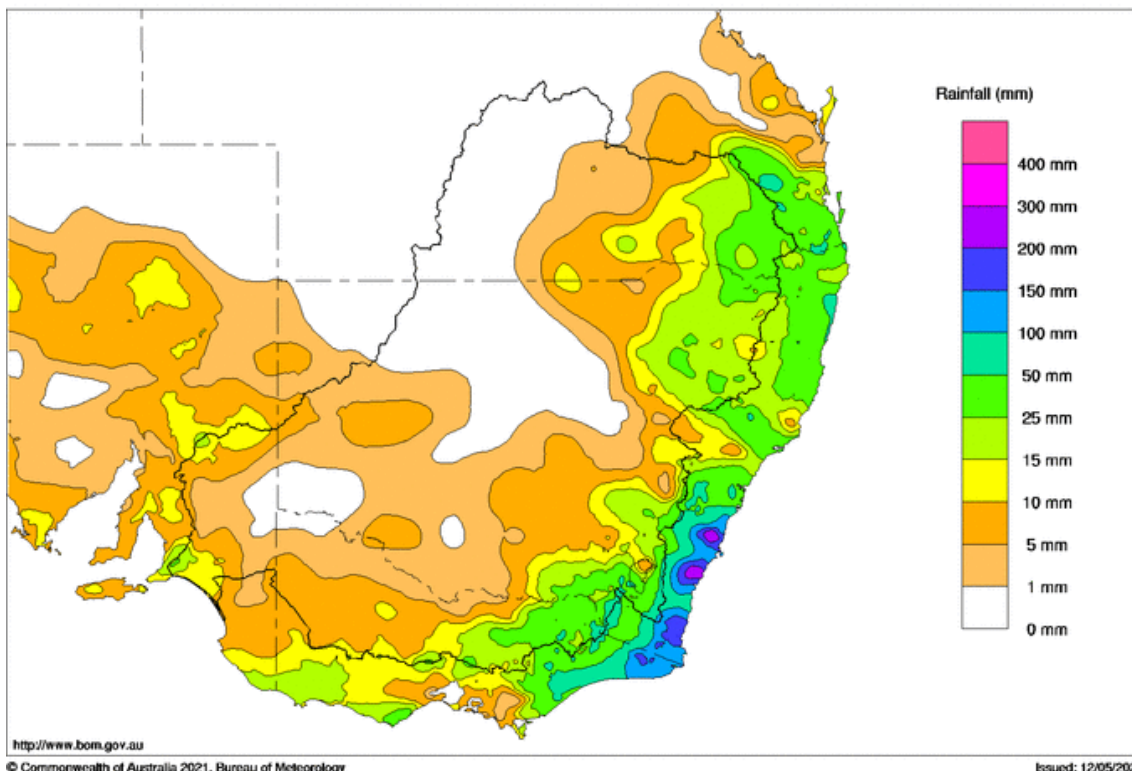
For the week ending Wednesday, 12 May 2020

Trim Ref: D21/12452

Rainfall and inflows

Further rainfall was recorded across parts of the Murray-Darling Basin this week, with some of the highest totals recorded along the southern ranges (Map 1). In Victoria, the highest totals included 64 mm at Falls Creek and 44 mm at Hunters Hill in the northeast, and 30 mm at Mount William in the Wimmera. In NSW, Narrabri airport AWS in the northwest recorded 34 mm, and notably, while just outside of the Basin, Perisher Valley and Thredbo in the NSW Snowy Mountains recorded 129 mm and 81 mm respectively. In Queensland, 32 mm was recorded at Warwick and 26 mm at Toowoomba airport AWS in the Darling Downs. In South Australia, Mount Barker in the Lofty ranges recorded 19 mm and Meningie at the Lower Lakes received 14 mm.

Murray-Darling Rainfall Totals (mm) Week Ending 12th May 2021
Australian Bureau of Meteorology



Map 1: Murray-Darling Basin rainfall for the week ending 12 May 2021. Source: Bureau of Meteorology.

Minor streamflow responses were observed in the upper Murray tributaries following this week's rainfall. Specific information about flows at key locations can be found at the MDBA's [River Murray data](#) webpage. Up-to-date river data for sites in the upper Murray can also be found on BoM's [website](#) and in the Murray River Basin Daily River Report at the WaterNSW [website](#).

Following heavy rain in late March, Water NSW [estimate](#) that 800-1,000 GL of inflow may reach Menindee Lakes as a result of flow in the Darling River. This estimate may be revised further in coming weeks as water continues to flow into the Menindee Lakes. For updates on flow forecasting in the northern Basin please see the [Water NSW](#) website.

Up-to-date river data for sites in the upper Murray can also be found on BoM's [website](#) and in the Murray River Basin Daily River Report at the Water NSW [website](#).



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River operations

- Diversions at major irrigation offtakes to cease on 15 May
- Stevens Weir pool to be lowered over winter
- Storage volume in Menindee Lakes exceeds 640 GL trigger meaning stored water above 480 GL is now part of the River Murray shared water resource

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.

Water quality impacts

The Murray and Lower Darling Regional Algal Coordinating Committee has continued to declare a number of red and amber alerts for **blue-green algae** in the River Murray System. Currently, **red alert** warnings remain in place on the River Murray at Colignan and Curlwaa. Red alerts have been lifted for Moama/Echuca, Tooleybuc, Euston Weir, Mt Dispersion, Buronga, Merbein, Wentworth and Fort Courage. **Amber alerts** are in place at a number of sites on the River Murray and along the Edward-Wakool River system. 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 280 GL over the last week to 4,018 GL (47% capacity). Access to the shared water resource in the Menindee Lakes contributed 256 GL of this improvement.

At **Dartmouth Reservoir**, the [storage](#) decreased by 3 GL to 2,460 GL (64% capacity) due to increased releases for hydro power generation. The release, measured at Colemans, initially increased to 3,250 ML/day over the weekend before reducing to 2,250 ML/day. The release is now being gradually reduced to target 250 ML/day. This increase for power generation superseded the flow pulse planned to commence May 11, meeting its water quality and environmental objectives.

Over the past week the **Hume Reservoir** [storage](#) increased by 7 GL to 1,279 GL (43% capacity). The Hume release reduced over the week to around 4,400 ML/day. The release is expected to continue reducing over the coming week as the irrigation season draws to a close.

The **Lake Mulwala** level is currently near 124.69 m AHD, within the normal operating range (124.6 to 124.9 m AHD). Diversions to Mulwala Canal and Yarrowonga Main Channel averaged around 1,800 ML/day and 1,150 ML/day respectively and will cease for the 2020-21 water year on 15 May. The release from **Yarrowonga Weir** decreased to around 4,000 ML/day and is expected to remain around this level for the coming week.

The regulator gates at **Edward River** and **Gulpa Offtakes** are now lifted clear of the water, meaning flows into these systems are varying with River Murray levels. The flow through the Edward offtake is around 1,000 ML/day and is expected to ease as Yarrowonga Weir releases reduce. Flow through **Gulpa Creek Offtake** has averaged 230 ML/day this week. Over the coming week the flow into Gulpa Creek is expected to be managed, for around a week, at around 50 to 100 ML/day to allow WaterNSW to undertake erosion protection works along Gulpa Creek.

Downstream on the Edward River, the diversion to Wakool Main Canal averaged 530 ML/day. Diversions to Wakool Canal will cease on 15 May. From this date, WaterNSW plan to lower the Stevens Weir pool and lift the regulator gates clear of the water to undertake essential maintenance works. Whilst the pool is lowered, there will be no flow into the Wakool, Yallakool and Colligen systems, unless a high flow event on the Murray increases the water level in the Edward River above the commence to flow levels of these distributaries. Also from the 15 May, Murray Irrigation Limited plan to release water via Edward Escape to drain sections of their irrigation network to undertake maintenance works. In response to these actions, the flow downstream of Stevens Weir is expected to increase briefly from around 600 ML/day to near 2,500 ML/day over the coming week.

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On the **Goulburn River**, the flow measured at [McCoys Bridge](#) decreased to around 1,300 ML/day. The flow rate is above the normal minimum as IVT is delivered to help meet system demands including the 350 GL end of season storage target in Lake Victoria. The flow is expected to further ease over the coming week to around 1,000 ML/day.

In addition to the Goulburn River, the delivery of water from the Goulburn IVT account to the Murray is continuing from the Campaspe River with a combined Goulburn IVT delivery of up to 35 GL planned for May. 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](#).

[Diversion](#)s to **National Channel** averaged around 1,200 ML/day and are expected to cease on Thursday 13 May for the remainder of May. The release from **Torrumbarry Weir** reduced to around 5,200 ML/day as inflows from the Murray the Goulburn Rivers receded. Flows are expected to continue to reduce over the coming week.

Inflow from the **Murrumbidgee River**, measured at [Balranald](#), increased to 4,900 ML/day. Flows are forecast to rise over the coming days to around 5,500 ML/day as a pulse of IVT and water for the environment are delivered. Up to 30 GL of Murrumbidgee IVT has been ordered for May to help meet system demands. The [Murrumbidgee IVT balance](#) is currently around 93 GL and open for trade.

At **Euston Weir**, the [weir pool level](#) is targeting around 20 to 30 cm below the full supply level (FSL) as part of normal weir pool variability. Varying pool levels helps restore a more natural wetting and drying cycle to riverbanks and adjacent wetlands within the influence of the weir pool. Also, during periods of higher flow, lowering the pool level can increase flow velocity within the weir pool to help move accumulated sediment downstream. The [downstream release](#) has risen gradually over the week to near 13,000 ML/day and is expected to hold around this rate over the coming days before gradually receding.

Pumping is underway to deliver water into the [Hattah lakes system](#) (Photo 1) to fill to a number of lakes and provide benefits to the aquatic environment, wetlands plants and animals. This action is being undertaken on behalf of environmental water holders and will continue until early June 2021.



Photo 1: Pumping to deliver water to Hattah Lakes on behalf of environmental water holders. (Photos courtesy of John Mensforth (GMW))

Several of the upstream tributaries of the **Barwon-Darling** have experienced flooding following heavy rain in late March, including moderate to major flooding in the Barwon and Warrego Rivers. Flow in the Darling River at Tilpa



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has now peaked with the flow reaching around 33,400 ML/day. At Wilcannia, the flow is continuing to slowly rise and is currently near 27,000 ML/day. For updates on flow forecasting in the northern Basin please see the [Water NSW](#) website.

At **Menindee Lakes**, WaterNSW [estimate](#) that 800-1,000 GL of inflow may reach the Lakes as a result of the current flow event in the Darling River (this estimate may be revised further in coming weeks depending on flow recession rates upstream). Total [storage](#) increased by 127 GL to 736 GL (43% capacity) this week and is now above the 640 GL trigger volume. This means stored water above 480 GL (ie 256 GL) is now part of the River Murray shared water resource.

The MDBA is continuing to revise forecasts and operational plans to determine when and how this water should be used to supply the system. This process will be on-going and will take account of the operating rules set by the Murray-Darling Basin Agreement and Basin governments, as well as the more specific opportunities and risks driven by current system conditions, water security, delivery efficiency, environmental and community considerations. Further updates will be provided in future weekly reports as updated plans and release decisions are made. Earlier in May, the MDBA hosted a webinar on the Menindee Lakes, the recording of which can be accessed [here](#).

The release from **Weir 32** has increased to target around 500 ML/day (normal minimum flow is 200 ML/day) on behalf of Environmental Water Holders. [This action is providing an elevated winter baseflow](#), to provide additional habitat to support Murray Cod and Golden Perch along the lower Darling River. 15 - 20 GL of entitlement water is expected to be delivered from The Living Murray and Commonwealth Environmental Water Holder accounts during this watering action. Consideration is being made to release a small pulse of water in the next week to help meet system requirements. This pulse would also support improved connectivity and fish passage.

At **Wentworth Weir**, the weir pool level continues to be managed around FSL. The downstream flow increased to around 8,800 ML/day this week and is expected to exceed 10,000 ML/day in the coming week.

At **Lock 9** the weir pool continues to vary around the FSL. The **Lock 8** weir pool is currently around 40 cm below FSL. **Lock 7** is raised to 55 cm above FSL and will continue vary near this level to facilitate increased flows into Lindsay River that enable pumping into Lake Wallawalla during May and June for environmental outcomes.

The [storage](#) at **Lake Victoria** increased by 20 GL to 217 GL (32% capacity). During May, the storage will continue to rise as water is captured to increase storage volumes towards a target of 350 GL.

The [flow](#) to **South Australia** averaged around 3,400 ML/day this week. Over the coming fortnight the flow is expected to rise to a peak of around 6,300 ML/day as water for the environment is delivered to South Australia. The flow includes South Australia's normal monthly Entitlement flow, small volumes of consumptive trade and water for the environment.

The **Lower Lakes** 5-day average water level is 0.60 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 Kremor
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Australian Government



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Water in Storage

Week ending Wednesday 12 May 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	461.75	2 460	64%	71	2 389	-3
Hume Reservoir	192.00	3 005	181.23	1 279	43%	23	1 256	+7
Lake Victoria	27.00	677	22.67	217	32%	100	117	+20
Menindee Lakes		1 731*		736	43%	(480 #)	256	+127
Total		9 269		4 692	51%	--	4 018	+152
Total Active MDBA Storage							47% ^	

Major State Storages

Burrinjuck Reservoir	1 026	813	79%	3	810	+23
Blowering Reservoir	1 631	1 318	81%	24	1 294	+18
Eildon Reservoir	3 334	1 864	56%	100	1 764	-12

* 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 11 May 2021

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2021
Lake Eucumbene - Total	854	-20	Snowy-Murray	+14	28
Snowy-Murray Component	429	n/a	Tooma-Tumut	+1	2
Target Storage	1 290		Net Diversion	13	26
			Murray 1 Release	+24	33

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2020	Victoria	This Week	From 1 July 2020
Murray Irrig. Ltd (Net)	16.3	628	Yarrowonga Main Channel (net)	7.7	209
Wakool Sys Allowance	2.6	105	Torrumbarry System + Nyah (net)	6.3	352
Western Murray Irrigation	0.2	24	Sunraysia Pumped Districts	0.9	106
Licensed Pumps	2.5	252	Licensed pumps - GMW (Nyah+u/s)	0.7	39
Lower Darling	0.2	2	Licensed pumps - LMW	3.3	425
TOTAL	21.8	1011	TOTAL	18.9	1131

* 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	23.9	(3 400 ML/day)
Flow so far this month	37.4	
Flow last month	161.5	

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

	Current	Average over the last week	Average since 1 August 2020
Swan Hill	110	100	90
Euston	-	-	-
Red Cliffs	100	100	120
Merbein	100	110	130
Burtundy (Darling)	460	450	400
Lock 9	140	130	130
Lake Victoria	120	110	120
Berri	190	180	160
Waikerie	270	240	210
Morgan	250	250	220
Mannum	260	260	230
Murray Bridge	310	300	250
Milang (Lake Alex.)	730	730	750
Poltalloch (Lake Alex.)	560	590	1 030
Meningie (Lake Alb.)	1 750	1 780	1 660
Goolwa Barrages	2 550	2 570	1 390

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River Levels and Flows

Week ending Wednesday 12 May 2021

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	-	-	-	3 970	F	3 470	4 400
Jingellic	4.0	1.89	208.41	6 260	S	5 380	6 030
Tallandoon (Mitta Mitta River)	4.2	2.07	218.96	2 570	F	2 030	620
Heywoods	5.5	2.25	155.88	4 490	F	6 010	6 900
Doctors Point	5.5	2.13	150.60	5 230	F	6 670	8 040
Albury	4.3	1.23	148.67	-	-	-	-
Corowa	4.6	1.64	127.66	6 320	F	7 080	9 210
Yarrowonga Weir (d/s)	6.4	0.73	115.77	4 010	F	5 160	7 490
Tocumwal	6.4	1.35	105.19	4 620	F	5 700	7 760
Torrumbarry Weir (d/s)	7.3	1.91	80.46	5 220	R	6 330	8 960
Swan Hill	4.5	1.33	64.25	6 890	F	8 060	8 390
Wakool Junction	8.8	3.25	52.37	9 250	F	9 560	8 120
Euston Weir (d/s)	9.1	2.19	44.03	12 750	R	10 660	7 790
Mildura Weir (d/s)	-	-	-	8 640	F	8 070	6 400
Wentworth Weir (d/s)	7.3	2.97	27.73	8 790	S	7 680	6 170
Rufus Junction	-	2.80	19.73	2 870	F	3 020	3 040
Blanchetown (Lock 1 d/s)	-	0.58	-	2 450	R	2 530	3 090
Tributaries							
Kiewa at Bandiana	2.8	1.00	154.23	470	R	520	670
Ovens at Wangaratta	11.9	8.03	145.71	640	R	540	400
Goulburn at McCoys Bridge	9.0	1.68	93.10	1 300	F	1 870	4 330
Edward at Stevens Weir (d/s)	5.5	0.53	80.31	210	F	650	830
Edward at Liewah	-	1.59	56.97	930	S	970	930
Wakool at Stoney Crossing	-	1.42	54.91	470	R	450	440
Murrumbidgee at Balranald	5.0	4.33	60.29	4 920	R	3 180	390
Barwon at Mungindi	6.1	3.60	-	1 220	F	1 340	1 610
Darling at Bourke	9.0	5.50	-	10 720	F	22 340	39 900
Darling at Burtundy Rocks	-	0.74	-	170	R	170	190

Natural Inflow to Hume	5 450	3 040
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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	-0.21	-	No. 7 Rufus River	22.10	+0.59	+0.52
No. 26 Torrumbarry	86.05	-0.00	-	No. 6 Murtho	19.25	-0.01	+0.01
No. 15 Euston	47.60	-0.34	-	No. 5 Renmark	16.30	+0.04	+0.08
No. 11 Mildura	34.40	+0.00	+0.25	No. 4 Bookpurnong	13.20	+0.02	+0.31
No. 10 Wentworth	30.80	+0.01	+0.33	No. 3 Overland Corner	9.80	+0.03	+0.19
No. 9 Kulnine	27.40	-0.09	-0.42	No. 2 Waikerie	6.10	+0.07	+0.09
No. 8 Wangumma	24.60	-0.43	+0.61	No. 1 Blanchetown	3.20	+0.05	-0.17

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.60
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Barrages

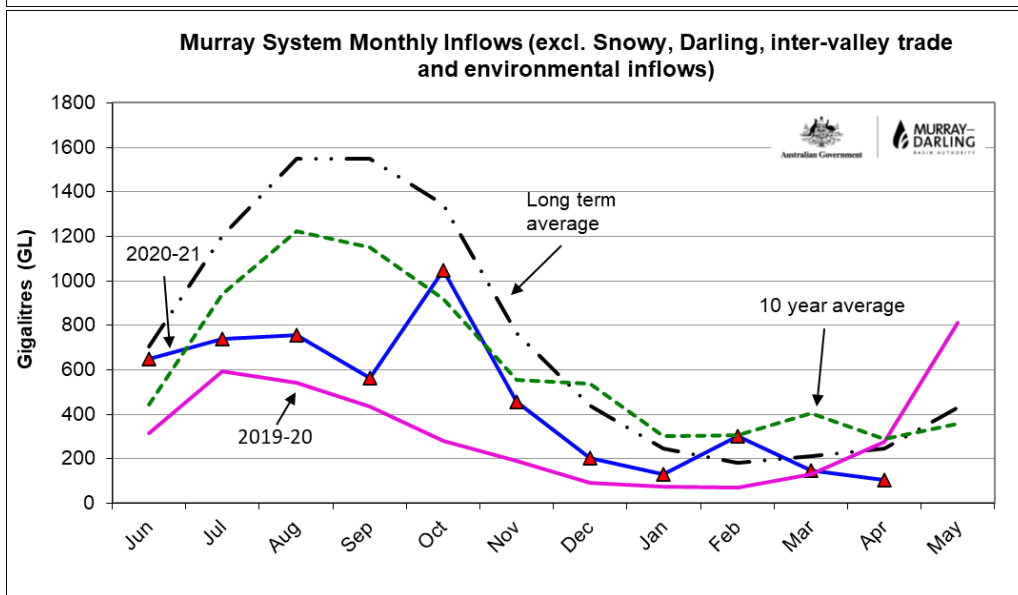
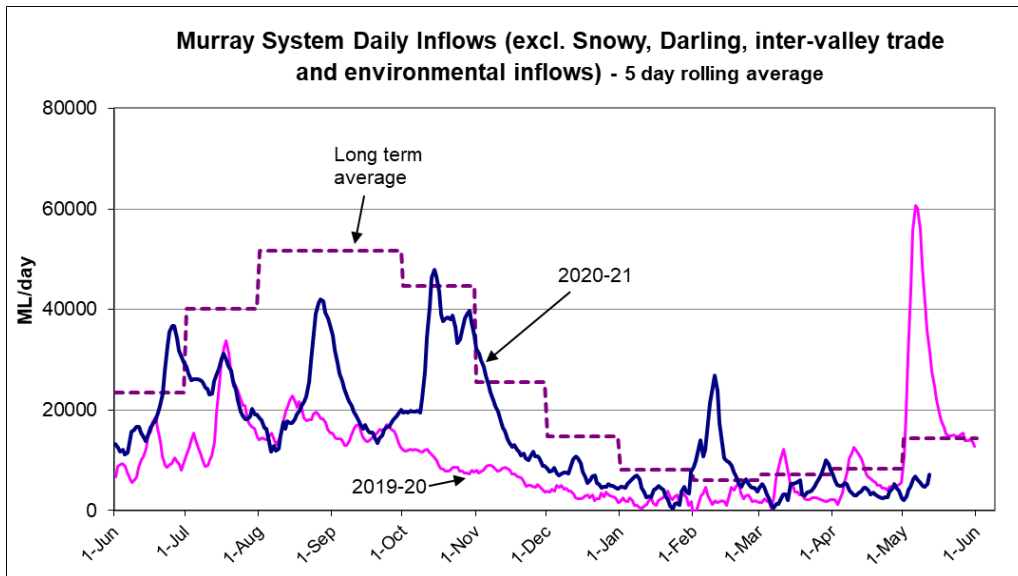
Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.65	All closed	-	Open	Open	-
Mundoo	26 openings	0.61	All closed	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	All closed	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwichee	322 gates	0.64	1	Open	Open	Open	-

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

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State Allocations (as at 12 May 2021)

NSW - Murray Valley

High security	97%
General security	50%

Victorian - Murray Valley

High reliability	100%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	100%
General security	100%

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 : <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>