



River Murray Weekly Report

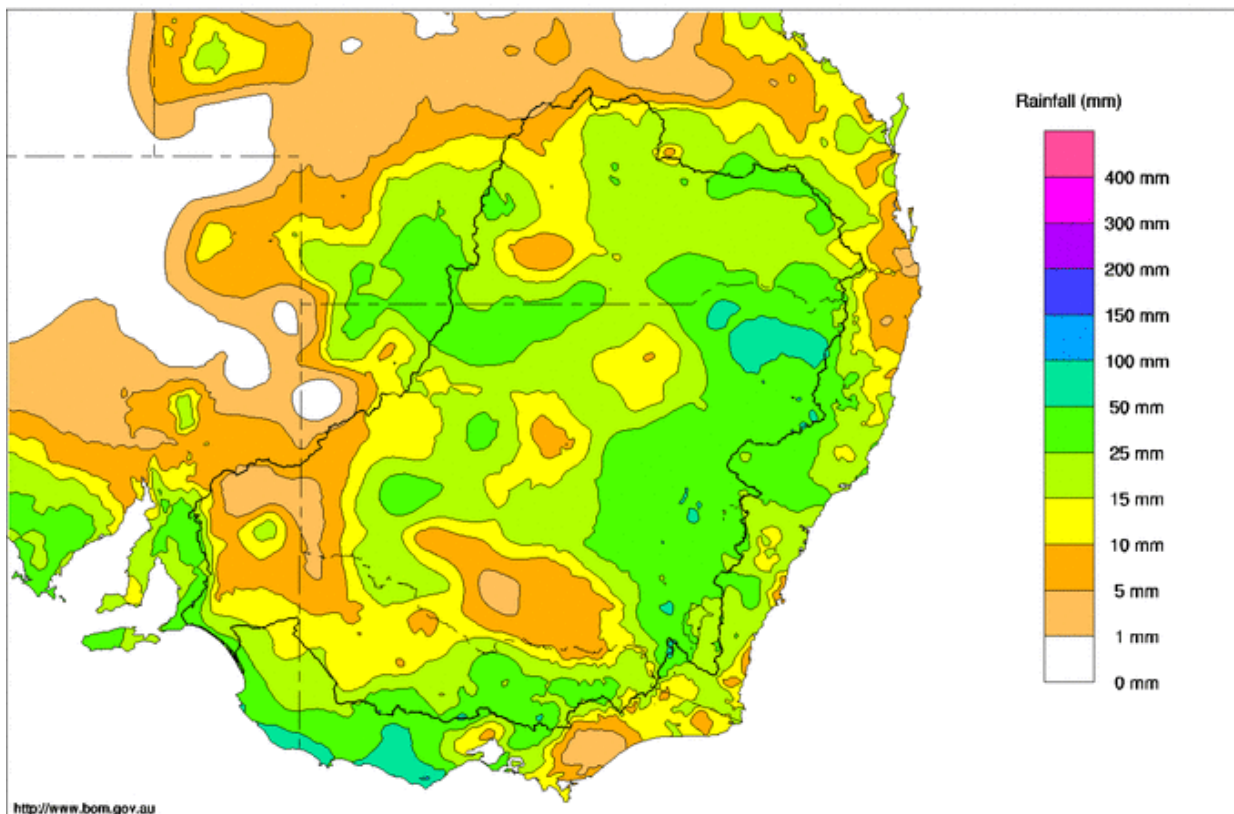
For the week ending Wednesday, 9 June 2020

Trim Ref: D21/15610

Rainfall and inflows

Rainfall was widespread across the Basin this week (Map 1). Bureau of Meteorology (BoM) advise that the rainfall in western Queensland and northern NSW was associated with an interaction between a weak low-pressure system and trough. In South Australia, Victoria and NSW, the rainfall was associated with a cold front, that resulted in cold temperatures and fog, and even snowfall across the Australian Alps. In NSW, the highest totals included 67 mm at Inverell in the northern tablelands, 62 mm at Warialda on the northwest slopes, 51 mm at Forbes airport AWS on the central west slopes, and 36 mm at Wanaaring on the Paroo River. In Victoria, 59 mm was recorded at Mount William in the Wimmera, 43 mm at Mount Wombat in the northeast and 39 mm at Stanhope in the upper north. In Queensland, the highest totals included 38 mm recorded at Yuleba in the Maranoa catchment, 39 mm at Nindigully in the Warrego catchment, 31 mm at Thargomindah airport in the far west and 29 mm at Texas in the Darling Downs. In South Australia, Mount Barker in the Lofty Ranges recorded 55 mm, while Milang at the lower Lakes recorded 23mm.

Murray-Darling Rainfall Totals (mm) Week Ending 9th June 2021
Australian Bureau of Meteorology



<http://www.bom.gov.au>

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Map 1 – Murray-Darling Basin rainfall for the week ending 9 June 2021. Source: Bureau of Meteorology.

BoM are forecasting further rainfall in the coming days, with totals of between 50 and 100 mm along the ranges in the upper Murray catchment.

There was no significant response to rainfall in the upper Murray catchments this week. Specific information about flows at key locations can be found at the MDBA’s [River Murray data](#) webpage.



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River operations

- Total active storage increasing
- Releases from Menindee Lakes reducing
- Stevens Weir pool lowered over winter
- Mildura Weir pool lowering planned for mid-July

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 63 GL over the last week to 4,603 GL (54% capacity).

At **Dartmouth Reservoir**, the [storage](#) increased 2 GL last week to 2,473 GL (64% capacity). The released, measured at Colemans gauge, is targeting 250 ML/day.

Over the past week the **Hume Reservoir** [storage](#) increased by 31 GL to 1,412 GL (47% capacity). The release is 2,200 ML/day. The volume released above the normal minimum flow target of 600 ML/day is currently being debited from Environmental Water Holders's (EWH) entitlements and is being delivered to maintain higher winter base flows in the Murray for the benefit of native fish. Over the coming week, the release is expected to reduce as inflows from the Kiewa and Ovens Rivers increase and contribute more to the flow in the Murray. On Tuesday 15 June to Thursday 17 June, the release will be at the minimum rate of 600 ML/day to facilitate maintenance works at the dam.

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 and Yarrawonga Main Channel ceased for the 2020-21 water year on 15 May. The release from **Yarrawonga Weir** averaged around 3,700 ML/day throughout the week and will increase to around 5,000 ML/day over the coming week to reflect the increase in the EWH's winter base flow target for the remainder of June.

The regulator gates at **Kolety** (pronounced Kol-etch)/**Edward River** and **Gulpa Offtakes** remain out of the water, meaning flows into these systems are varying with River Murray levels. Downstream on the Kolety/Edward River at **Stevens Weir**, the pool is being lowered and the regulator gates are expected to be removed from the water in the coming days. 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 are expected to vary around 800 ML/day over the coming week.

On the **Goulburn River**, the flow measured at [McCoys Bridge](#) is targeting around 940 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. No IVT deliveries are planned for June. 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** have increased to around 300 ML/day and are expected to remain at this level until at least the end of June. Water is being used to maintain base flows in the Pyramid Creek system and Kerang Weir



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on behalf of EWH's. The release from **Torrumbarry Weir** averaged around 3,700 ML/day and is expected to remain around 3,500 ML/day over the coming week.

The Torrumbarry Weir pool has been lowered to 85.77 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 months 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 will also assist 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.

Inflow from the **Murrumbidgee River**, measured at [Balranald](#) increased to 930 ML/day, but is expected to ease over the coming week. No Murrumbidgee IVT has been ordered for June. The [Murrumbidgee IVT balance](#) is currently around 96.6 GL and closed for trade 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 7,000 ML/day and is expected to reduce over the coming days to near 6,000ML/day.

Pumping into the [Hattah lakes system](#) is expected to cease in the coming week. Around 30 GL will have been delivered to fill a number of lakes and provide benefits to the aquatic environment, wetland plants and animals. This action is being undertaken on behalf of environmental water holders.

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](#). (**Please note**, the dates quoted here and the link have been corrected. In last weeks report and the previous version of this weekly report, dates quoted and linked to the wrong media release).

At **Menindee Lakes**, total volume in storage increased by 11 GL to 1079 GL (62% 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. Lake Pamamaroo is limited to a maximum level of 61.28 m AHD, as this is the top of gate level for Menindee Inlet. Lake Wetherell will be limited to 61.88 m AHD due to the structural stability of the Pamamaroo Inlet regulator. More information is available from WaterNSW's [WaterInsights](#).

Inflows to Menindee Lakes have continued to recede over the week with the flow upstream at Wilcannia reducing from 2,000 ML/day to 1,400 ML/day.

Over the last few weeks water has been released from Menindee Lakes to help meet system requirements, with the flow at Weir 32 reaching a peak of around 4,000 ML/day last week. This week flows at Weir 32 decreased from 3,700 ML/day to 2,250 ML/day in line with system requirements, and will continue to reduce at the maximum rate of fall (250 ML/day), to target 500 ML/day in mid-June. For the remainder of-June, environmental water holder's plan to use their entitlements to maintain the flow at Weir 32 at around 500 ML/day for the benefit of native fish in the Barka/lower Darling River.

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.

Photo 1 – Flow in the Barka/lower Darling River passing through a very dry landscape near Pooncarie (Image courtesy Marg Lucardie)



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At **Wentworth Weir**, the weir pool level continues to be managed around FSL. The downstream flow increased to around 8,600 ML/day this week and is expected to increase further over the coming week as inflows from the Barka/lower Darling peak. 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 17 GL to 313 GL (46% capacity). During June, the storage will continue to rise as water is captured to increase the volume to target 350 GL in the third week of June.

The [flow](#) to **South Australia** is currently targeting 3,000 ML/day. During the first three weeks of June, the flow to South Australia is being maintained at this rate whilst SA Water undertakes their annual run-of-river salinity monitoring from Lock 7 to Morgan. Run-of-river surveys measure salinity at each kilometre along the river and the difference in electric conductivity (EC) of a parcel of water on consecutive days is assumed to be due to saline inflow. The data from the survey is analysed to assess salt loads to the River Murray and identifies locations for notable salt inflow so that future efforts to manage salinity can be targeted.



Photo 2 – A cold front brought mist over Lake Albert this week, viewed from Parnka Point at the junction of the Coorong North and South Lagoons (Image courtesy K Wedge)

The **Lower Lakes** 5-day average water level is 0.64 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



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ANDREW REYNOLDS
Executive Director, River Management



Australian Government



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Water in Storage

Week ending Wednesday 09 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	462.02	2 473	64%	71	2 402	+2
Hume Reservoir	192.00	3 005	182.28	1 412	47%	23	1 389	+31
Lake Victoria	27.00	677	23.68	313	46%	100	213	+19
Menindee Lakes		1 731*		1 079	62%	(480 #)	599	+11
Total		9 269		5 277	57%	--	4 603	+63
Total Active MDBA Storage							54% ^	

Major State Storages

Burrinjuck Reservoir	1 026	823	80%	3	820	+12
Blowering Reservoir	1 631	1 524	93%	24	1 500	+27
Eildon Reservoir	3 334	1 843	55%	100	1 743	+2

* 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 Jun 2021

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2021
Lake Eucumbene - Total	709	-48	Snowy-Murray	+18	108
Snowy-Murray Component	491	-19	Tooma-Tumut	+1	19
Target Storage	1 240		Net Diversion	16	89
			Murray 1 Release	+24	135

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)	-0.2	626	Yarrowonga Main Channel (net)	0	211
Wakool Sys Allowance	1.3	114	Torrumbarry System + Nyah (net)	0	361
Western Murray Irrigation	0.1	27	Sunraysia Pumped Districts	0.3	109
Licensed Pumps	n/a	264	Licensed pumps - GMW (Nyah+u/s)	0.1	42
Lower Darling	0.0	3	Licensed pumps - LMW	0.5	432
TOTAL	1.2	1034	TOTAL	0.9	1155

* 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	21.1	(3 000 ML/day)
Flow so far this month	27.1	
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	80	80	90
Euston	-	-	-
Red Cliffs	120	130	120
Merbein	130	130	130
Burtundy (Darling)	390	390	400
Lock 9	150	140	130
Lake Victoria	130	100	120
Berri	180	200	170
Waikerie	280	260	210
Morgan	270	280	220
Mannum	270	270	240
Murray Bridge	290	290	260
Milang (Lake Alex.)	730	740	750
Poltalloch (Lake Alex.)	520	460	980
Meningie (Lake Alb.)	1 440	1 570	1 670
Goolwa Barrages	3 670	2 850	1 540

**River Levels and Flows****Week ending Wednesday 09 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	-	-	-	1 760	F	2 940	5 050
Jingellic	4.0	1.58	208.10	3 720	F	5 340	6 340
Tallandoon (Mitta Mitta River)	4.2	1.42	218.31	630	R	720	900
Heywoods	5.5	1.98	155.61	2 200	S	1 690	1 060
Doctors Point	5.5	1.94	150.41	3 450	R	2 830	2 530
Albury	4.3	1.06	148.50	-	-	-	-
Corowa	4.6	1.08	127.10	3 650	R	2 750	2 970
Yarrowonga Weir (d/s)	6.4	0.72	115.76	3 940	R	3 700	3 870
Tocumwal	6.4	1.15	104.99	3 480	F	3 670	3 820
Torrumbarry Weir (d/s)	7.3	1.46	80.00	3 660	F	3 710	4 150
Swan Hill	4.5	0.92	63.84	4 030	S	4 240	4 540
Wakool Junction	8.8	2.43	51.55	5 610	F	6 060	5 660
Euston Weir (d/s)	9.1	1.33	43.18	7 010	S	7 020	6 600
Mildura Weir (d/s)	-	-	-	6 420	F	5 510	5 990
Wentworth Weir (d/s)	7.3	3.03	27.79	8 640	R	6 750	6 200
Rufus Junction	-	2.75	19.68	2 610	R	2 610	2 820
Blanchetown (Lock 1 d/s)	-	0.65	-	2 310	R	2 450	2 720
Tributaries							
Kiewa at Bandiana	2.8	1.35	154.58	950	R	930	1 350
Ovens at Wangaratta	11.9	8.11	145.79	870	R	880	1 230
Goulburn at McCoys Bridge	9.0	1.47	92.89	950	S	1 010	1 250
Edward at Stevens Weir (d/s)	5.5	1.22	80.99	950	S	900	880
Edward at Liewah	-	1.77	57.15	1 080	F	1 150	1 140
Wakool at Stoney Crossing	-	1.36	54.85	360	F	400	340
Murrumbidgee at Balranald	5.0	1.34	57.30	930	R	740	490
Barwon at Mungindi	6.1	3.50	-	870	F	1 020	1 280
Darling at Bourke	9.0	4.37	-	2 100	F	2 200	1 620
Darling at Burtundy Rocks	-	2.00	-	2 490	R	1 880	620

Natural Inflow to Hume	3 420	5 430
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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	+0.61	+0.46
No. 26 Torrumbarry	86.05	-0.28	-	No. 6 Murtho	19.25	-0.06	-0.02
No. 15 Euston	47.60	-0.32	-	No. 5 Renmark	16.30	+0.01	+0.10
No. 11 Mildura	34.40	+0.07	+0.15	No. 4 Bookpurnong	13.20	+0.03	+0.31
No. 10 Wentworth	30.80	+0.00	+0.39	No. 3 Overland Corner	9.80	+0.05	+0.19
No. 9 Kulnine	27.40	-0.02	-0.33	No. 2 Waikerie	6.10	+0.08	+0.00
No. 8 Wangumma	24.60	-0.33	+0.63	No. 1 Blanchetown	3.20	-0.06	-0.10

Lower Lakes FSL = 0.75 m AHD

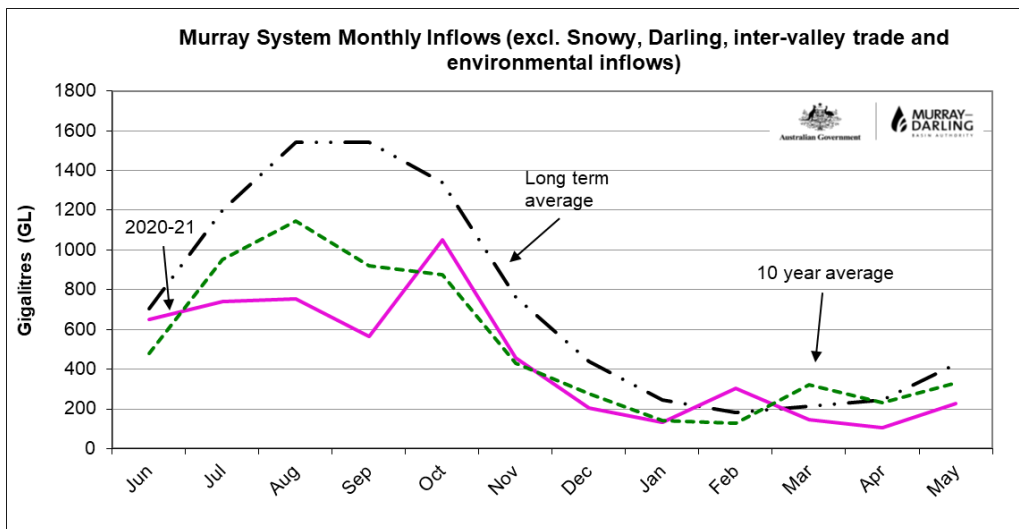
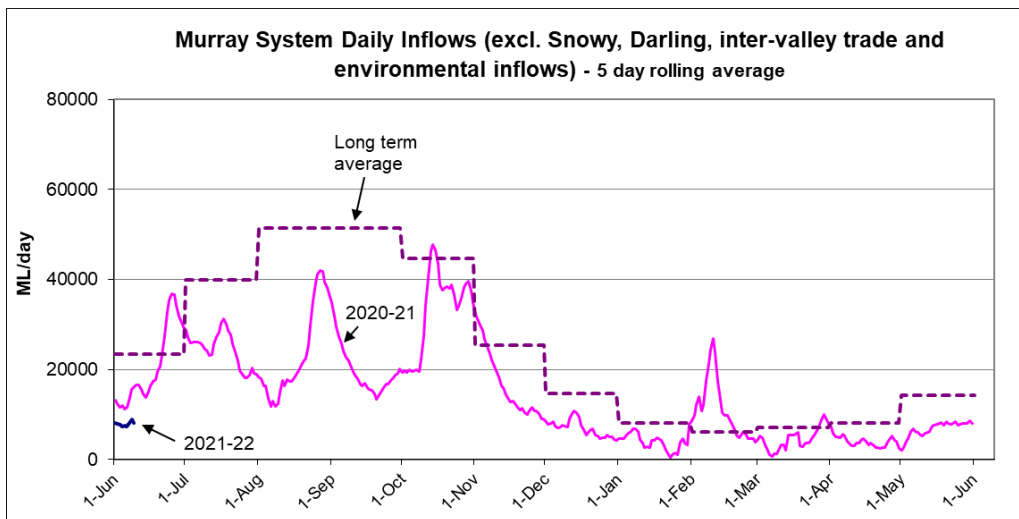
Lake Alexandrina average level for the past 5 days (m AHD)	0.64
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Barrages**Fishways at Barrages**

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.57	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
Tauwichee	322 gates	0.47	All closed	Open	Open	Open	-

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





State Allocations (as at 09 Jun 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>

