



River Murray Weekly Report

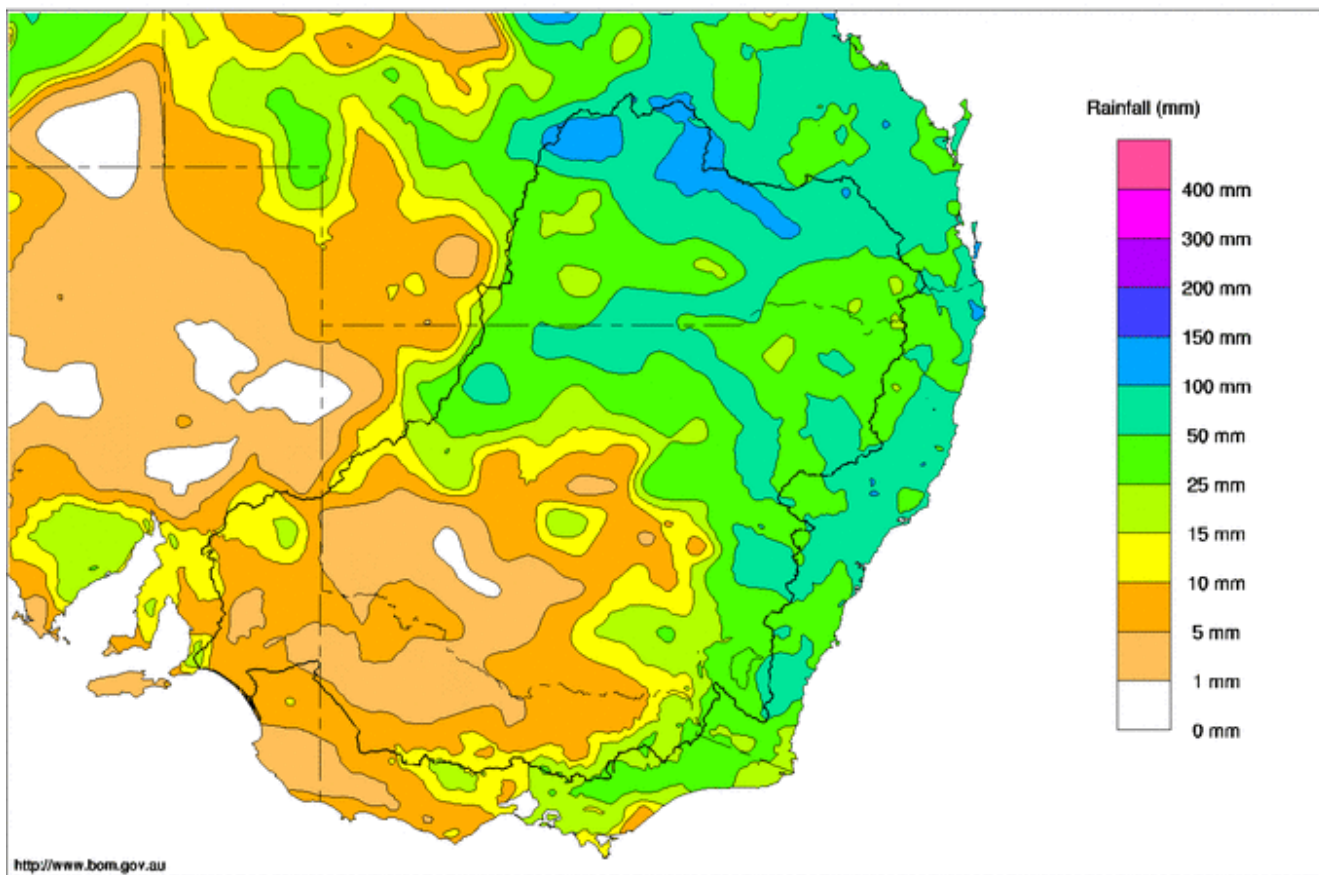
For the week ending Wednesday, 17 March 2021

Trim Ref: D21/7432

Rainfall and inflows

The southern Basin recorded minor rainfall this week, with the highest totals in the south-east. In Victoria, Falls Creek in the Victorian Alps recorded 27 mm, while Harrietville on the Ovens river recorded 18 mm. Higher rainfall totals were recorded across the northern Basin, with Roma and Mitchell in Queensland recording 108 mm and 116 mm, respectively (Map 1). The Bureau of Meteorology (BoM) is forecasting 25-50 mm of rainfall across much of the Basin in the coming [week](#) (Map 2).

Murray-Darling Rainfall Totals (mm) Week Ending 17th March 2021
Australian Bureau of Meteorology



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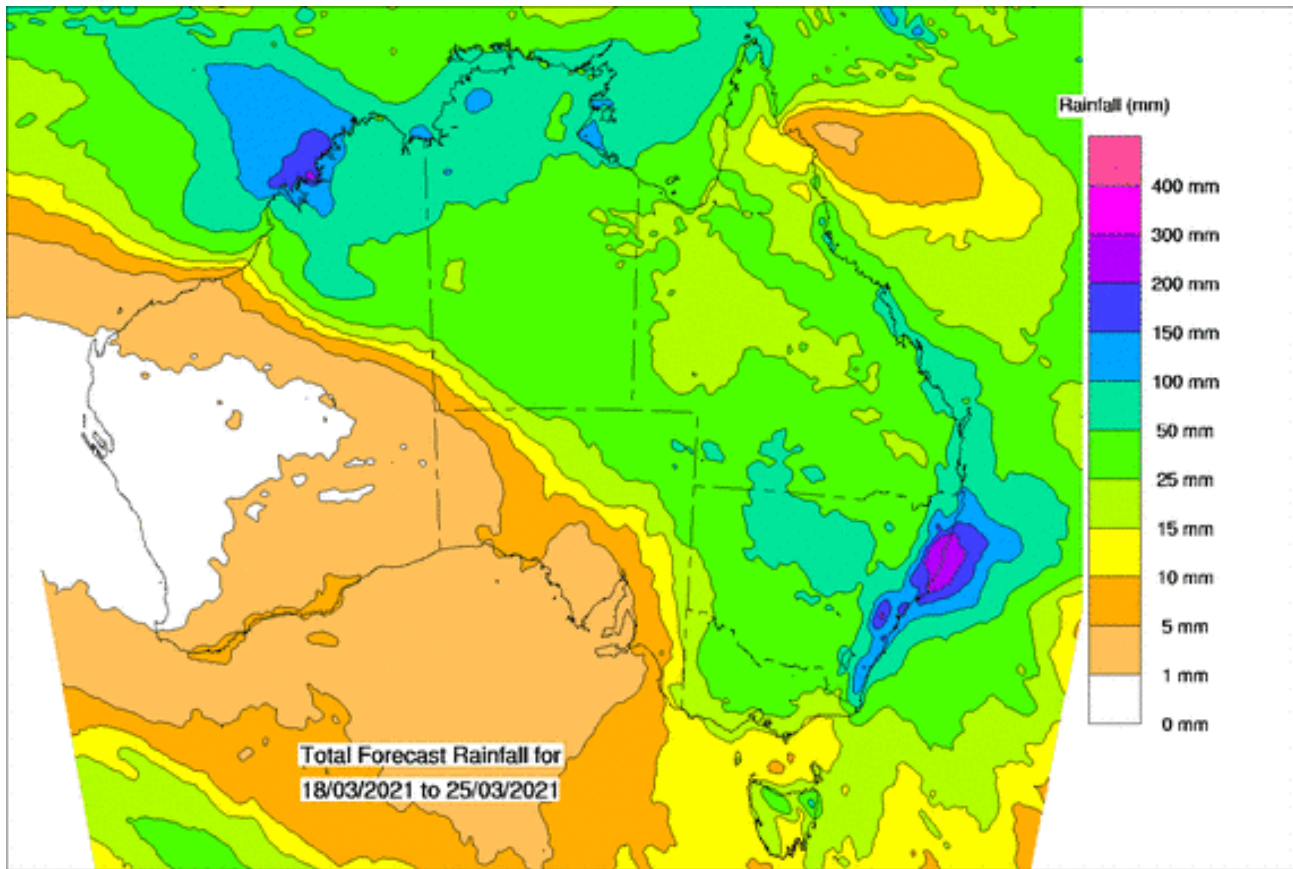
Issued: 17/03/2021

Map 1: Murray-Darling Basin rainfall for the week ending 17 March 2021. Source: Bureau of Meteorology.

Minor streamflow responses were observed in the upper Murray tributaries following this week’s rainfall. Further 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](#).



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Map 2: Total 8-day rainfall forecast (18 to 25 March 2021). Source: Bureau of Meteorology.

River operations

- River Murray Flows may vary at Easter
- Lake Victoria continues to fall as it supports the delivery of system demands
- Red alert levels continue for blue-green algae at Lake Victoria and Sunraysia

Easter Flows

With the busy Easter and school holiday period approaching in early April, river users are reminded that River Murray levels from Hume Dam to South Australia depend on a range of factors including weather and system demands. Depending on the location along the system, flows are likely to ease between now and the Easter and school holiday period. The BoM are forecasting moderate rainfall totals over the coming week, and a reduction in irrigation demand at key offtakes like National Channel has already been observed. To compensate for irrigation reductions and to conserve water in the upper Murray storages, small reductions are being made to target flows from Yarrawonga Weir and Steven's Weir over the coming week. If the rainfall eventuates as forecast, further reductions in irrigation demands along the length of the River Murray and corresponding easing of releases could be expected over the coming weeks. More information on the expected flows around Easter will be provided in coming reports. River users can monitor Murray levels and flow forecasts at key locations on the MDBA's [River Murray data](#) webpage to assist in planning any river activities.



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Water demand

The MDBA is actively monitoring shortfall risks. A shortfall occurs when water cannot be delivered to users when and where it is needed. A delivery shortfall occurs when actual water use is higher than it was forecast to be when river water was released from storages, weeks earlier, to meet the forecast needs for irrigation and environmental water. A system shortfall occurs when the combined capacity of the system is unable to supply all downstream requirements over the full season. More information about shortfalls can be found at [Water demand \(shortfalls\) | Murray-Darling Basin Authority \(mdba.gov.au\)](https://www.mdba.gov.au/water-demand-shortfalls).

The risk of a **delivery shortfall** in the River Murray between Wakool Junction and the SA border over the coming week is negligible. The MDBA is continuing to monitor weather conditions and forecast demands and will continue to actively manage the risk of delivery shortfall across the high demand summer-autumn period as conditions evolve.

The risk of a **system shortfall** is being closely monitored in consultation with states. Mostly dry conditions, following the rainfall events in late January and early February, has meant the MDBA and states will continue to monitor this risk closely over the coming weeks and will take steps to minimise the risk of a shortfall as necessary. If the rain forecast by BoM eventuates, this will likely reduce the risk of a system shortfall.

The MDBA, Basin state governments and their agencies have different roles and responsibilities in managing delivery shortfalls. Read more information on [delivery shortfall risks for Victorian water licence holders](#).

Water quality impacts

In late February, Hume Dam staff identified poor water quality immediately downstream of Hume Dam, witnessing stressed Murray Crayfish leaving the river. This behaviour was an early sign of low dissolved oxygen in river water which makes it difficult for crayfish to breathe. NSW Fisheries and WaterNSW have undertaken regular water quality monitoring to assist in managing the issue in Lake Hume and downstream. Releases from Hume Dam over the past week have all been through the power station as conditions remain steady.

The poor-quality water in Lake Hume is a result of runoff from catchments burnt in last season's bushfires. [Albury City Council](#) and [North East Water](#) are monitoring water quality supplied to their customers. The MDBA is closely working with WaterNSW, Meridian Energy, NSW Fisheries and Albury and Wodonga Councils to manage the issue. This week, the dissolved oxygen levels within the dam and downstream continue to be in the healthy range for fish and crayfish. Further information can be found in the MDBA [media release](#) and on the [Albury City Council](#) website.

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, a **red alert** has been declared on the River Murray at Buronga, River Murray Pump Station, Fort Courage and at the [outlet regulator at Lake Victoria](#). **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** decreased over the last week by 71 GL to 3,891 GL (46% capacity).

At **Dartmouth Reservoir**, the [storage](#) increased by 1 GL to 2,446 GL (63% capacity). The flow at Colemans remained steady this week at 350 ML/day assisting in keeping flows at Tallandoon above 600 ML/day.

Over the past week the **Hume Reservoir** [storage](#) reduced by 58 GL to 1,435 GL (48% capacity). The current Hume release is near 11,000 ML/day.



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Photo 1: River Murray at Towong (Photo courtesy of Matt Todhunter, MDBA)

At **Lake Mulwala**, the pool [level](#) remained within normal operating levels across the week (124.6 to 124.9 m AHD). Diversions to Mulwala Canal and West Corugan reduced slightly this week to around 4,800 ML/day and 305 ML/day, respectively. Diversions to Yarrowonga Main Channel remained around 1,400 ML/day. Around 1,100 ML/day of these diversions are returning to the river system to meet demands downstream of the Barmah Choke. This week, the release from **Yarrowonga Weir** was reduced to target 8,800 ML/day to assist with the level at Picnic Point.

Flow through the **Edward River Offtake** has remained steady and averaged near 1,580 ML/day, while flow through **Gulpa Creek Offtake** has been around 260 ML/day this week.

Downstream on the **Edward River**, the release from Edward Escape has averaged around 1,970 ML/day and the diversion to Wakool Main Canal reduced to 700 ML/day. The flow downstream of Steven's Weir will reduce to target a flow of around 1,000 ML/day over the coming week. Flow through the Wakool River, Yallakool Creek and Colligen Creek offtakes are currently around 60, 260 and 200 ML/day, respectively.

On the **Goulburn River**, the flow measured at [McCoys Bridge](#) peaked on Monday at around 1,960 ML/day as a higher rate of Inter Valley Trade (IVT) was delivered during the first half of March. The flow is forecast to fall early next week to near 1,000 ML/day.

In addition to the Goulburn River, the delivery of water from the Goulburn IVT account to the Murray is continuing via the Campaspe River and Broken Creek. Combined, IVT deliveries are expected to total 40 GL in March. 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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Photo 2: River Murray at Barham (Photo courtesy of Andrew Lowes, MDBA)

[Diversions](#) to **National Channel** have averaged around 2,750 ML/day for the week and are forecast to reduce over the coming week to at least 2,500 ML/day. The release from **Torrumbarry Weir** is currently around 5,200 ML/day and is expected to fall through the week as delivery rates reduce from the Goulburn River upstream.

Inflow from the **Murrumbidgee River** measured at [Balranald](#), increased this week to a peak of around 2,500 ML/day and is currently around 2,150 ML/day. The flow is expected to remain at or slightly lower than this rate over the coming week. Around 40 GL of Murrumbidgee IVT has been ordered from the Murrumbidgee system in March. The [Murrumbidgee IVT balance](#) is open for trade from the Murray to the Murrumbidgee (98.7 GL), but remains closed for trade from the Murrumbidgee to the Murray.

River users and houseboat owners should be aware that the **river level will vary between Torrumbarry and Wentworth Weirs** over the coming weeks, particularly as the Goulburn, Murray and Murrumbidgee rivers vary over the coming week.

At **Euston Weir**, the [weir pool level](#) remains near full supply level (FSL). The [downstream release](#) continued to rise this week from around 6,600 ML/day to the current flow of near 8,000 ML/day. The release will continue to remain relatively steady over the coming week.

Menindee Lakes total [storage](#) reduced by 3 GL to 301 GL (17% capacity) over the last week. Upstream of the Lakes, flow in the Darling River at Bourke has increased this week to around 2,050 ML/day. WaterNSW currently forecast 26 to 30 GL of inflow to Lake Wetherell from this event. More information is provided in the WaterNSW [regional water availability report](#). Some [water restrictions](#) remain current in NSW. Links to drought services and assistance can be accessed via the MDBA [drought webpage](#). This week, WaterNSW continued to release 350 ML/day from Lake Pamamaroo, with the storage release from Lake Wetherell being switched to Lake Pamamaroo to balance the storage height between the two lakes. Downstream at Weir 32, the release continues around the normal summer minimum rate of 350 ML/day.

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At **Wentworth Weir**, the weir pool level continues to be managed around FSL. The downstream flow increased during the week to the current rate near 5,500 ML/day and is forecast to continue rising in the coming week.

Downstream at **Lock 9** the weir pool continues to vary near FSL. The **Lock 8** and **Lock 7** weir pools are currently at around 40 cm below FSL and will vary around these levels during March.

The [storage](#) level at **Lake Victoria** reduced by 11 GL to 204 GL (30% capacity) this week, as releases continue to supplement Murray flows to meet system demands.

The [flow](#) to **South Australia** averaged 6,050 ML/day for the week and is forecast to increase to 6,700 ML/day over the coming days. 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 0.65 m AHD. Barrage releases will continue to be made, when conditions allow, to push fresh water into the Coorong and to support Black Bream spawning over the coming months. 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 17 Mar 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	461.46	2 446	63%	71	2 375	+1
Hume Reservoir	192.00	3 005	182.46	1 435	48%	23	1 412	-58
Lake Victoria	27.00	677	22.54	204	30%	100	104	-11
Menindee Lakes		1 731*		301	17%	(- -) #	0	-3
Total		9 269		4 386	47%	- -	3 891	-71
Total Active MDBA Storage							46% ^	

Major State Storages

Burrinjuck Reservoir	1 026	635	62%	3	632	-3
Blowering Reservoir	1 631	1 227	75%	24	1 203	-13
Eildon Reservoir	3 334	2 037	61%	100	1 937	-25

* 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 16 Mar 2021

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2020
Lake Eucumbene - Total	1 050	n/a	Snowy-Murray	+30	745
Snowy-Murray Component	488	n/a	Tooma-Tumut	+2	232
Target Storage	1 410		Net Diversion	29	513
			Murray 1 Release	+33	1 020

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)	21.8	504	Yarrowonga Main Channel (net)	9.3	160
Wakool Sys Allowance	1.6	87	Torrumbarry System + Nyah (net)	19.1	246
Western Murray Irrigation	0.6	21	Sunraysia Pumped Districts	2.3	94
Licensed Pumps	n/a	202	Licensed pumps - GMW (Nyah+u/s)	n/a	19
Lower Darling	n/a	2	Licensed pumps - LMW	n/a	367
TOTAL	24.0	816	TOTAL	30.7	886

* 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	186.0 *	
Flow this week	42.5	(6 100 ML/day)
Flow so far this month	107.6	
Flow last month	238.2	

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

	Current	Average over the last week	Average since 1 August 2020
Swan Hill	70	80	100
Euston	-	-	-
Red Cliffs	110	120	130
Merbein	120	120	130
Burtundy (Darling)	500	500	390
Lock 9	120	130	130
Lake Victoria	120	120	120
Berri	160	160	160
Waikerie	220	220	200
Morgan	240	240	210
Mannum	250	250	230
Murray Bridge	-	-	250
Milang (Lake Alex.)	730	730	750
Poltalloch (Lake Alex.)	670	680	1 120
Meningie (Lake Alb.)	1 670	1 670	1 630
Goolwa Barrages	1 130	1 120	1 220



River Levels and Flows

Week ending Wednesday 17 Mar 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	-	-	-	5 080	F	4 900	3 970
Jingellic	4.0	1.93	208.45	6 570	R	6 890	4 640
Tallandoon (Mitta Mitta River)	4.2	1.42	218.31	620	F	620	610
Heywoods	5.5	3.07	156.70	12 010	F	14 430	15 290
Doctors Point	5.5	2.86	151.33	13 110	F	15 350	18 040
Albury	4.3	1.91	149.35	-	-	-	-
Corowa	4.6	3.03	129.05	14 970	F	15 150	16 540
Yarrowonga Weir (d/s)	6.4	1.48	116.52	8 990	F	9 170	9 090
Tocumwal	6.4	2.05	105.89	8 960	F	9 100	8 890
Torrumbarry Weir (d/s)	7.3	1.90	80.44	5 170	R	5 030	5 340
Swan Hill	4.5	1.00	63.92	4 590	F	4 800	4 850
Wakool Junction	8.8	2.61	51.73	6 390	S	6 230	5 990
Euston Weir (d/s)	9.1	1.48	43.32	7 980	R	7 140	5 840
Mildura Weir (d/s)	-	-	-	6 030	F	5 650	4 550
Wentworth Weir (d/s)	7.3	2.77	27.53	5 550	S	4 970	3 730
Rufus Junction	-	3.34	20.27	5 790	R	5 700	6 030
Blanchetown (Lock 1 d/s)	-	0.69	-	4 000	S	4 040	3 580
Tributaries							
Kiewa at Bandiana	2.8	0.89	154.12	340	F	420	410
Ovens at Wangaratta	11.9	8.00	145.68	570	F	580	560
Goulburn at McCoys Bridge	9.0	2.01	93.43	1 890	F	1 670	1 270
Edward at Stevens Weir (d/s)	5.5	2.21	81.98	2 310	F	2 430	2 490
Edward at Liewah	-	2.53	57.91	1 900	R	1 650	1 300
Wakool at Stoney Crossing	-	1.38	54.87	400	R	360	340
Murrumbidgee at Balranald	5.0	2.47	58.43	2 200	F	2 300	1 630
Barwon at Mungindi	6.1	3.72	-	1 630	R	750	0
Darling at Bourke	9.0	4.36	-	2 050	R	770	90
Darling at Burtundy Rocks	-	0.77	-	250	F	240	220

Natural Inflow to Hume	1 070	680
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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	-0.08	-	No. 7 Rufus River	22.10	-0.42	+1.03
No. 26 Torrumbarry	86.05	-0.00	-	No. 6 Murtho	19.25	-0.01	+0.06
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.01	+0.14
No. 11 Mildura	34.40	+0.03	+0.08	No. 4 Bookpurnong	13.20	+0.01	+0.57
No. 10 Wentworth	30.80	+0.00	+0.13	No. 3 Overland Corner	9.80	+0.06	+0.23
No. 9 Kulnine	27.40	-0.10	-0.39	No. 2 Waikerie	6.10	+0.06	+0.18
No. 8 Wangumma	24.60	-0.42	-0.26	No. 1 Blanchetown	3.20	+0.06	-0.06

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.65
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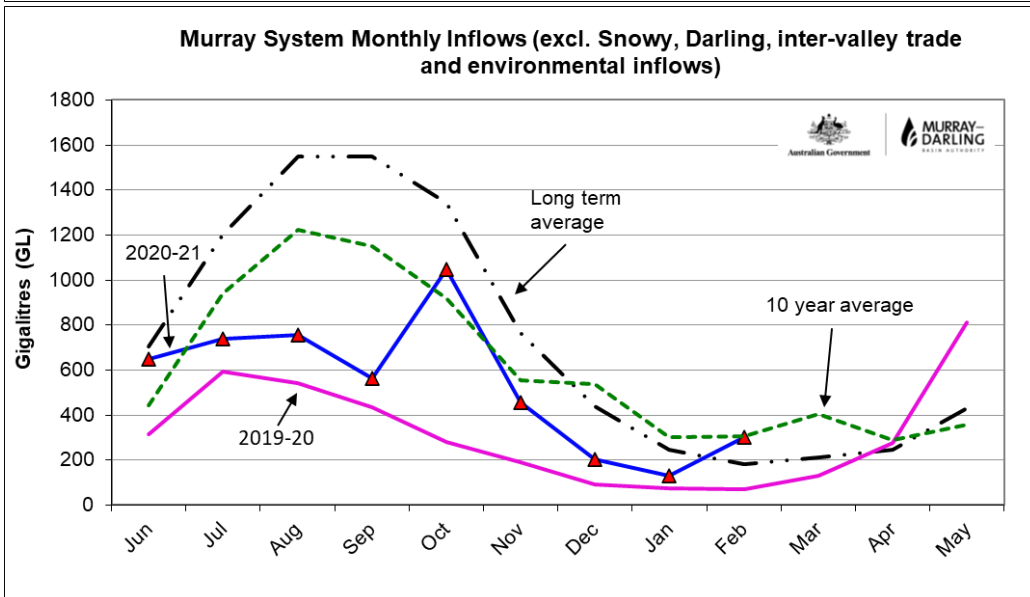
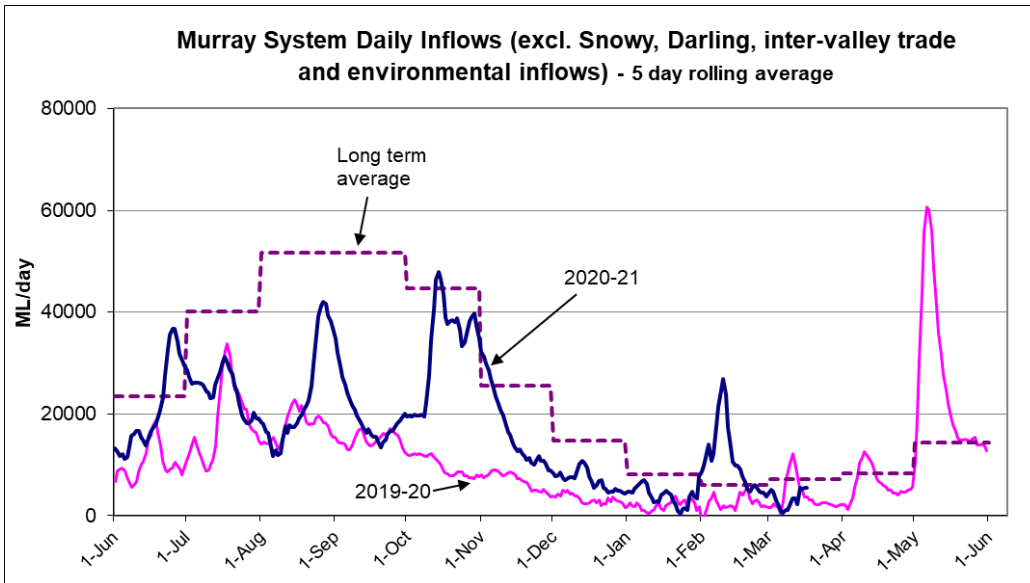
Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.66	1	-	Open	Open	-
Mundoo	26 openings	0.63	All closed	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	1	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwichee	322 gates	0.64	5	Open	Open	Open	-

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





State Allocations (as at 17 Mar 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	30%

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>

