



River Murray Weekly Report

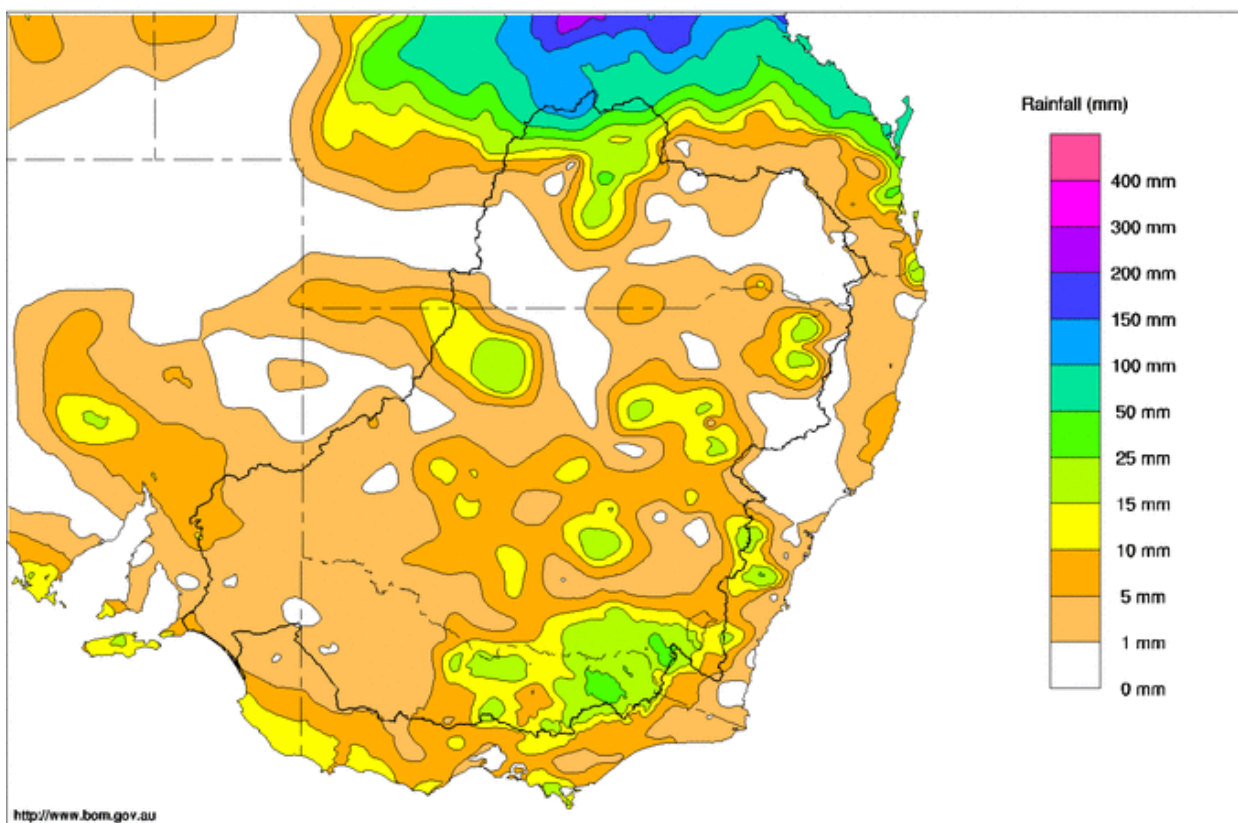
For the week ending Wednesday, 18 January 2023

Trim Ref: D23/1570

Weekly rainfall and inflows

Rainfall this week mostly fell in the northeast of Victoria, parts of NSW and Queensland with totals up to 49mm at Falls Creek and 52mm at Benalla. In Queensland, the highest totals included 59 mm at Ivanhoe Downs and in NSW, the highest total was recorded at Hillston with 42mm.

Murray-Darling Rainfall Totals (mm) Week Ending 18th January 2023
Australian Bureau of Meteorology



Map 1 - Murray-Darling Basin rainfall for the week ending 18 January 2023. Source: Bureau of Meteorology.

In the upper Murray streamflow reduced across the week in response to drier conditions and small rainfall responses observed across the Victorian tributaries as a storm came through on Saturday night. Above Hume dam Jingellic averaged 5,600 ML/day across the week, following releases from the Snowy Hydro scheme. On the Mitta Mitta at Tallandoon, the flow increased slightly to 2,300 ML/day before receding back to 2,000 ML/day. The tributaries downstream of Hume Dam also receded after a small response from rainfall. The Kiewa River peaked at around 1,400 ML/day at Bandiana before receding to around 900 ML/day, while the Ovens River peaked at around 1,600 ML/day at Peechelba.

Over the coming week, the BoM [8-day rainfall outlook](#) shows rain across south-eastern Australia. Rainfall totals between 15-25 mm are likely across the Broken, Ovens, Kiewa, and upper Murray River catchments with isolated higher falls possible.



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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 Basin can also be found on:

- Bureau of Meteorology [website](#)
- WaterNSW's WaterInsights [website](#)
- Victoria's DELWP water monitoring [website](#)
- South Australia's Water Data [website](#)
- Queensland's [Water Monitoring Information Portal](#)

River operations

- Regulated river conditions have commenced downstream of Hume Dam to Barmah, and on the Edward River to Stevens Weir
- River Murray receding to SA border and beyond
- Flooding continues across the lower Murray and Darling River catchments

Bureau of Meteorology national warning system

Several [flood warnings](#) have been issued by the Bureau. With flooding continuing in many parts of the basin in the coming week, please refer to the Bureau [national warnings](#) system and [Rainfall and River Conditions](#) for up to date information on riverine conditions and flood levels.

The Bureau is responsible for forecasting river heights during flood events. The MDBA does not provide forecasts for locations where flooding is occurring or imminent.

*If you live along the floodplain downstream of Hume Dam you can [subscribe](#) to **WaterNSW's Early Warning Network** to be notified by SMS, email or landline about dam activities during periods of flooding or high releases.*

Hume Dam operations update

With the transition back to regulated conditions downstream of Hume Dam, the dam will be managed to meet increasing downstream consumptive and environmental demands.

Further significant rainfall has the potential to require airspace management releases to recommence while storage levels remain high. This is not expected in the coming week given the current rainfall forecast.

Unregulated flows

Flows remain unregulated in the River Murray between Barmah and the South Australian border and along the lower Baaka/Darling system. Unregulated flows are expected to continue in the mid and lower River Murray, as flood peaks slowly travel downstream. Ongoing inflows from the Murrumbidgee River and the Baaka/Darling system will contribute to extended unregulated flows in the lower River Murray.

River operators will continue to monitor rainfall forecasts, tributary inflows and system demands and provide updated advice on unregulated flows. Information on access to Murray supplementary water licences in NSW is available from [WaterNSW Water insights](#). General information on River Murray unregulated flows can be accessed on the MDBA [webpage](#).

Water quality impacts

Flooding across the Basin and warming water temperatures are resulting in the widespread occurrence of [low oxygen blackwater](#). Water quality data for sites across the Basin within NSW is available on the WaterNSW [website](#). Water quality alerts for sites are also available at [Water quality | Murray-Darling Basin Authority](#).

Blackwater occurs naturally when water flows across the floodplain drowning out accumulated leaf litter, bark, grasses, organic cropping material and other vegetation. The affected water appears darker, often similar to the

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colour of black tea. Bacteria in the water break down this organic matter, encouraged by warmer water temperatures. In breaking down large amounts of organic matter, bacteria use up a lot of the oxygen in the water, so there is less (or no) oxygen for fish and other aquatic organisms to breathe. This is known as low oxygen (or hypoxic) blackwater. More information about [blackwater](#) is available from the MDBA website.

WaterNSW advise that a **red alert** for **blue-green algae** is current for Lake Hume (Hume dam) and an **amber alert** for Yarrawonga downstream to Swan Hill on the Murray River, the Edward/Wakool Rivers, and the Menindee Lakes system, with Goulburn Murray Water indicating **red alerts** for Lake Eppalock and the Loddon Valley Irrigation Channels. Information about blue-green algae, including alert locations, is available through [Goulburn-Murray Water](#), [WaterNSW](#) and [Water quality | Murray-Darling Basin Authority](#).

River operations

MDBA **active storage** is 8,575 GL (100% capacity). The active storage volume remains around its maximum volume with Dartmouth Dam, Menindee Lakes, and Lake Victoria all effectively full (i.e., while Lake Victoria storage is currently being managed below full supply levels (FSL), there is enough flow forecast to re-fill before unregulated system flows cease).

At **Dartmouth Reservoir**, the [storage](#) reduced by 7 GL to 3,838 GL (100% capacity) this week. The storage is currently just below FSL, and releases will be gradually reduced this week to 500 ML/day, measured at Colemans gauge. Communities, landholders, and river users along the Mitta Mitta River are encouraged to continue to monitor water levels in the coming weeks. To receive additional information on planned flow changes in the Mitta Mitta River, subscribe to receive the MDBA's flow advices [here](#).

Storage at [Hume Reservoir](#) decreased by 31 GL to 2,891 GL or 96% capacity this week. Releases from Hume dam are being managed to supply consumptive requirements downstream to Yarrawonga Weir. The current Hume release is 8,000 ML/day.



Photo 1 & 2: Ovens River at Ovens Billabong Reserve (Photo Tim Rossi)



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At **Lake Mulwala**, the diversion to Mulwala Canal and Yarrowonga Main Channel increased to an average rate of 4,600 ML/day and 1,150 ML/day, respectively. This increase was in response to hot dry conditions and increased irrigation demand. Releases from Yarrowonga weir increased to target 10,000 ML/day, using environmental entitlements. This flow is expected to continue until the end of January. Barmah-Millewa Forest regulators will be gradually closed over the coming week as river levels recede, and forest managers regain access to the regulators.

The flows into the Kolety and Gulpa Creek are currently around 1,500 ML/day and 400 ML/day respectively, with Gulpa above its regulated capacity of 150 ML/day. Diversions have reduced to around 200 ML/day into the Wakool River, 270 ML/day at Yallakool Creek and 270 ML/day through Colligen Creek. On the Kolety near Moulamein, inflows from the Billabong Creek (measured at Darlot) have continue to fall this week to around 1,200 ML/day.

Goulburn River inflows to the Murray measured at [McCoys Bridge](#) receded to 1,100 ML/day. Information on Goulburn-Murray Water storages can be found [here](#). Inflows to the Murray from the **Campaspe River** (measured at Rochester Syphon) receded slightly at around 70 ML/day. Information regarding opportunities for allocation trade between the Goulburn and Murray systems is available at the Victorian water register [website](#) and the [Goulburn-Murray Water website](#).

At **Torrumbarry Weir**, the upstream weir level is currently 86.05 m AHD (FSL). The [diversion](#) to **National Channel** is near 1,700 ML/day. This volume includes water that is being delivered to Gunbower Creek on behalf of environmental water holders. The flow downstream of the weir is reducing and is currently around 7,200 ML/day.

Inflows to the Murray from the **Murrumbidgee River**, measured at [Balranald](#), have continued to recede throughout the last few weeks to the current flow around 19,400 ML/day. The flow will continue to slowly fall over the coming weeks, as flood waters upstream recede.

Further downstream on the Murray at **Euston**, flow continued to recede and is currently near 59,500 ML/day and will continue to reduce over the coming week. The weir at Lock 15 is being prepared for re-installation next week.

At **Mildura Weir**, the water level is currently 36.20 m. The level will continue to gradually drop over the coming weeks ([Flood Warning - Murray River \(bom.gov.au\)](#)), with a minor flood warning continuing.

At **Menindee Lakes**, the storage reduced by 19 GL to 1,994 GL (116% capacity). In late December a major rise in inflows began with floodwater re-joining the Darling upstream of the lakes ([WaterNSW](#)). This has resulted in increased river levels and releases from the Menindee Lakes to the lower Baaka/Darling River as well as flooding in the township. Updated advice on forecast inflows and operations at Menindee Lakes is available from the WaterNSW WaterInsight [website](#).

Downstream on the lower Darling at Burtundy, the flow is near 17,900 ML/day and will continue to slowly rise.

At **Wentworth Weir**, inflows from the **Baaka** are boosting the flow in the River Murray. Currently the river level is 33.03 m and slowly receding. The gauge at Wentworth has been overestimating flow at the current high river levels, and the flow at Wentworth is not being reported on the MDBA website while the issue is addressed.

The [storage](#) at **Tar-ru/Lake Victoria** is currently 526 GL (77% capacity).

The flow to **South Australia** will continue to decrease over the coming weeks as flood waters continue to recede from upstream. With the flow rate at the South Australian border remaining above 40,000 ML/day, South Australia's Department for Environment and Water continue to update their River Murray High Flow Advice weekly. This advice is available on their [website](#). River users please be aware, there are [current restrictions](#) on boating, swimming and fishing activities in place for the River Murray from the SA border to the Wellington ferry.

Additional Dilution Flow (ADF) to South Australia continues to be triggered. The current unregulated flows into South Australia mean that no additional releases from storage are needed to meet ADF. For information on ADF and the ADF triggers refer to [Objectives and Outcomes for River Operation in the River Murray System](#) (pages 79-80).

Downstream of the South Australian border, the **Lower Lakes** 5-day average water level is 1.18 m AHD. The barrages are continuing to pass unregulated flows to the Coorong and out to the Southern Ocean. For further information about water levels, flow rates and barrage operations along the River Murray in South Australia see the



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South Australian Department for Environment and Water weekly [River Murray Flow Report](#) and the [Water Data SA](#) website.

For media inquiries contact the Media Officer on 02 6279 0141

ANDREW REYNOLDS

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Australian Government



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Water in Storage

Week ending Wednesday 18 Jan 2023

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	485.72	3 838	100%	71	3 767	-7
Hume Reservoir	192.00	3 005	191.43	2 891	96%	23	2 868	-31
Lake Victoria	27.00	677	25.72	526	78%	100	426	-10
Menindee Lakes		1 731*		1 994	115%	(480 #)	1 514	-19
Total		9 269		9 249	100%	--	8 575	-67
Total Active MDBA Storage							100% ^	

Major State Storages

Burrinjuck Reservoir	1 026	944	92%	3	941	-48
Blowering Reservoir	1 631	1 523	93%	24	1 499	+11
Eildon Reservoir	3 334	3 305	99%	100	3 205	-8

* 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 Jan 2023

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2022
Lake Eucumbene - Total	2 857	-7	Snowy-Murray	+11	580
Snowy-Murray Component	1 123	-4	Tooma-Tumut	+5	327
Target Storage	1 520		Net Diversion	6	253
			Murray 1 Release	+16	945

Major Diversions from Murray and Lower Darling (GL) *

New South Wales	This Week	From 1 July 2022	Victoria	This Week	From 1 July 2022
Murray Irrig. Ltd (Net)	31.3	307	Yarrowonga Main Channel (net)	7.7	58
Wakool Sys Allowance	0.0	0	Torrumbarry System + Nyah (net)	0	179
Western Murray Irrigation	1.4	10	Sunraysia Pumped Districts	3.5	31
Licensed Pumps	7.2	90	Licensed pumps - GMW (Nyah+u/s)	1.4	10
Lower Darling	1.4	12.4	Licensed pumps - LMW	16.5	138
TOTAL	46.8	755	TOTAL	29.1	416

* 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)

Entitlement this month	217.0 *	
Flow this week	867.5	(123 900 ML/day)
Flow so far this month	2,566.5	
Flow last month	5,271.9	

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

	Current	Average over the last week	Average since 1 August 2022
Swan Hill	220	230	190
Euston	-	-	-
Red Cliffs	-	-	110
Merbein	-	-	200
Burtundy (Darling)	490	490	370
Lock 9	270	260	210
Lake Victoria	200	210	180
Berri	290	280	220
Waikerie	260	260	250
Morgan	270	270	240
Mannum	270	260	250
Murray Bridge	280	270	260
Milang (Lake Alex.)	370	390	370
Poltalloch (Lake Alex.)	290	290	270
Meningie (Lake Alb.)	980	930	1 060
Goolwa Barrages	310	300	720



River Levels and Flows

Week ending Wednesday 18 Jan 2023

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	-	-	-	2 570	F	2 910	2 430
Jingellic	4.0	2.16	208.68	8 290	R	5 630	5 670
Tallandoon (Mitta Mitta River)	4.2	1.93	218.82	1 970	F	2 050	2 160
Heywoods	5.5	2.58	156.21	10 500	R	11 080	11 120
Doctors Point	5.5	2.87	151.34	13 740	F	14 490	14 620
Albury	4.3	1.77	149.21	-	-	-	-
Corowa	4.6	3.01	129.03	14 730	S	15 030	15 280
Yarrowonga Weir (d/s)	6.4	1.51	116.55	9 160	R	9 110	11 540
Tocumwal	6.4	2.41	106.25	11 630	S	11 990	15 130
Torrumbarry Weir (d/s)	7.3	2.43	80.98	7 230	F	8 290	10 930
Swan Hill	4.5	1.76	64.68	9 840	F	11 120	17 790
Wakool Junction	8.8	6.02	55.14	22 150	F	30 300	54 980
Euston Weir (d/s)	9.1	6.77	48.61	59 880	F	71 970	99 150
Mildura Weir (d/s)	-	-	-	76 750	F	88 730	113 730
Wentworth Weir (d/s)	7.3	8.27	33.03	-	F	-	-
Rufus Junction	-	8.31	25.24	119 190	F	126 260	148 300
Blanchetown (Lock 1 d/s)	-	7.14	-	-	F	-	-
Tributaries							
Kiewa at Bandiana	2.8	1.42	154.65	1 080	R	1 130	1 040
Ovens at Wangaratta	11.9	8.29	145.97	1 300	F	1 420	2 030
Goulburn at McCoys Bridge	9.0	1.58	93.00	1 140	R	1 260	1 790
Edward at Stevens Weir (d/s)	5.5	2.22	81.99	2 320	F	2 870	3 560
Edward at Liewah	-	3.62	59.00	3 540	F	4 180	7 920
Wakool at Stoney Crossing	-	2.89	56.38	5 030	F	7 700	20 420
Murrumbidgee at Balranald	5.0	6.51	62.47	19 480	F	23 210	33 550
Barwon at Mungindi	6.1	3.25	-	140	F	130	270
Darling at Bourke	9.0	4.67	-	4 690	F	5 830	13 210
Darling at Burtundy Rocks	-	7.25	-	17 900	S	17 860	17 850

Natural Inflow to Hume	6 060	7 180
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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	-0.01	-	No. 7 Rufus River	22.10	-	+6.03
No. 26 Torrumbarry	86.05	+0.25	-	No. 6 Murtho	19.25	-	+4.46
No. 15 Euston	47.60	+1.15	-	No. 5 Renmark	16.30	-	+4.75
No. 11 Mildura	34.40	+1.94	+5.54	No. 4 Bookpurnong	13.20	-	+5.56
No. 10 Wentworth	30.80	-	+5.63	No. 3 Overland Corner	9.80	-	+7.21
No. 9 Kulnine	27.40	+2.08	+4.88	No. 2 Waikerie	6.10	-	+7.45
No. 8 Wangumma	24.60	-	+5.21	No. 1 Blanchetown	3.20	+3.95	+6.39

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	1.18
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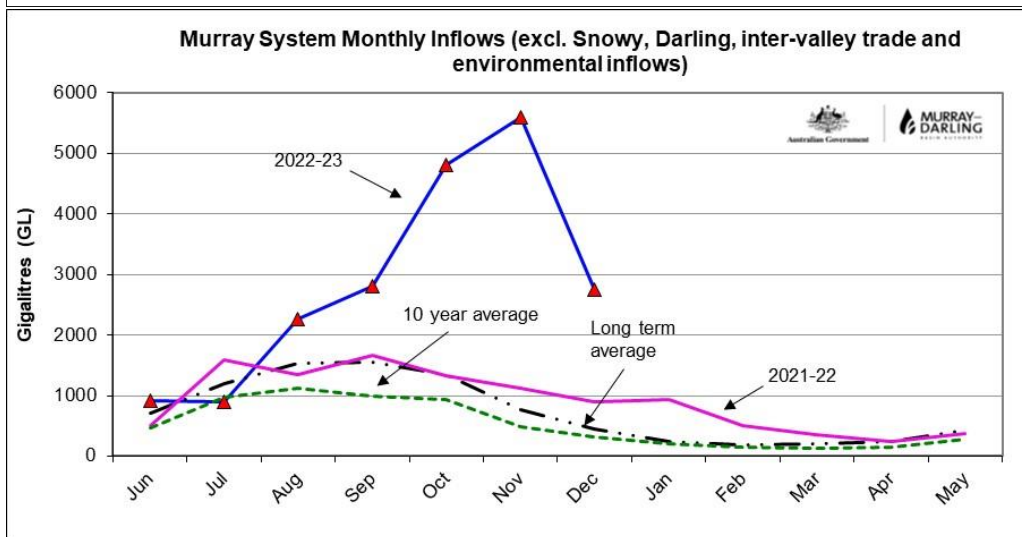
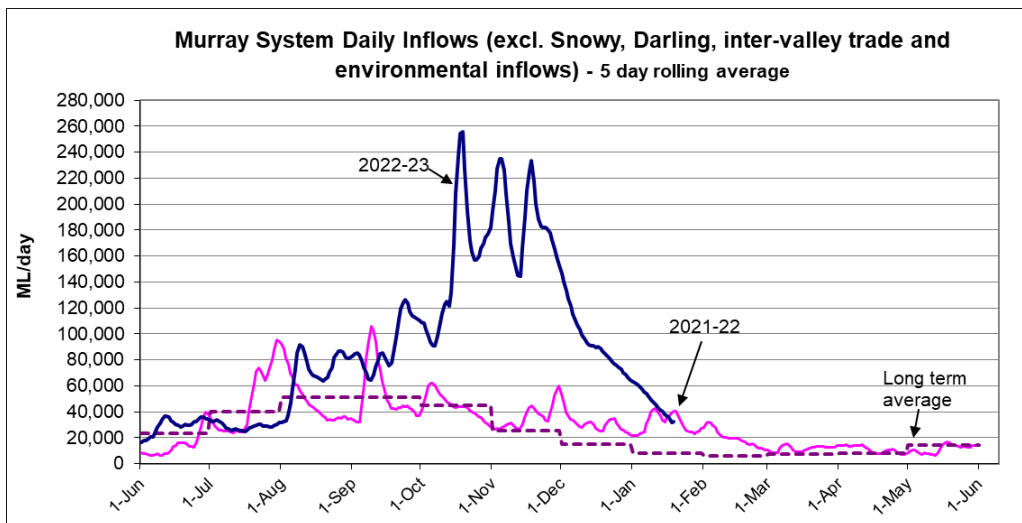
Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.77	120	-	Open	Open	-
Mundoo	26 openings	0.69	25	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	5	-	Open	-	-
Ewe Island	111 gates	-	110	-	-	-	Open
Tauwichee	322 gates	1.02	316	Open	Open	Open	-

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





State Allocations (as at 18 Jan 2023)

NSW - Murray Valley

High security	100%
General security	110%

Victorian - Murray Valley

High reliability	100%
Low reliability	100%

NSW – Murrumbidgee Valley

High security	95%
General security	65%

Victorian – Goulburn Valley

High reliability	100%
Low reliability	100%

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 : [Department for Environment and Water | Current allocations](http://www.environment.sa.gov.au/department-for-environment-and-water/current-allocations)

