



River Murray Weekly Report

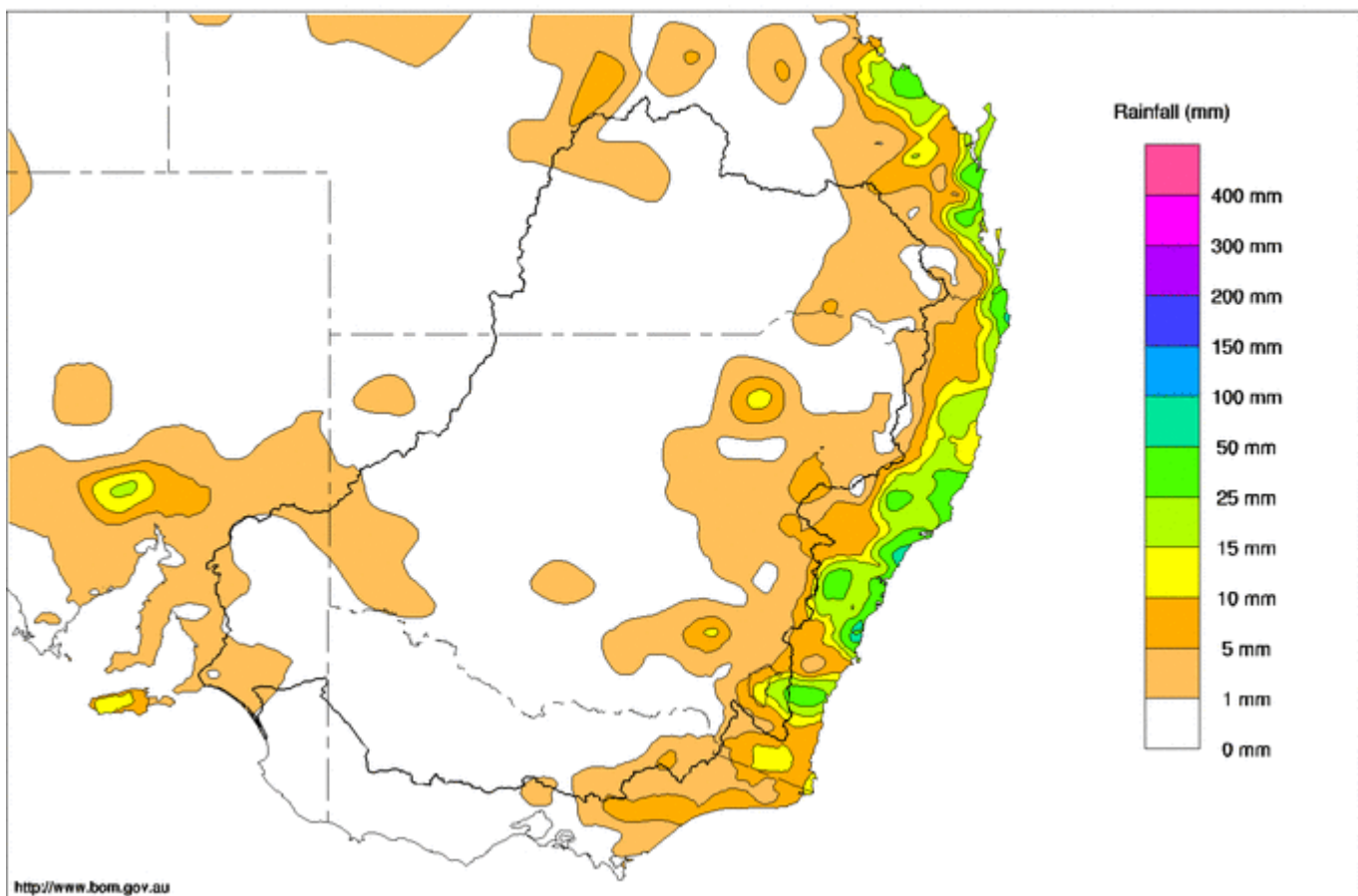
For the week ending Wednesday, 16 February 2022

Trim Ref: D22/3222

Weekly rainfall and inflows

Conditions were dry across the southern Murray-Darling Basin this week, with minimal rain recorded (Map 1). In the northern Basin, isolated totals of between 10-15 mm were observed from storms.

Murray-Darling Rainfall Totals (mm) Week Ending 15th February 2022
Australian Bureau of Meteorology



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Issued: 15/02/2022

Map 1: Murray-Darling Basin rainfall for the week ending 16 February 2022. Source: Bureau of Meteorology.

In the upper Murray, streamflow generally receded across the week. Above Hume Dam, Jingellic receded from 7,900 ML/day to 3,900 ML/day, with reduced releases from Khancoban Pond due to Snowy Hydro power generation. Downstream of Hume Dam, the Kiewa River at Bandiana increased from 870 ML/day to 1,100 ML/day before falling to the current rate near 870 ML/day, while the Ovens River at Peechelba reduced from 2,000 to 1,350 ML/day.

Over the coming week, the BoM [8-day rainfall outlook](#) indicates that dry conditions will continue across south-eastern Australia.



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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 upper Murray can also be found on BoM's [website](#), at the WaterNSW real-time data [website](#), and in the Murray River Basin [Daily River Report](#) at the WaterNSW website. See also Victoria's DELWP water monitoring [website](#), South Australia's Water Data [website](#) and Queensland's [Water Monitoring Information Portal](#).

River operations

- Lake Victoria storage continues to increase
- Regulated conditions return between Hume Dam and Yarrawonga Weir
- Unregulated conditions continue below Yarrawonga Weir as flow pulse moves downstream

Hume Dam operations update and post flood arrangements

Airspace management at Hume Dam has been frequent since early August. Since then, the storage has regularly been effectively spilling, with releases adjusted to maintain some airspace to help mitigate peak flows from upstream flood events, whilst also aiming to steer the storage towards full once conditions dry off.

Hume Dam peaked at 99% full last Thursday 3rd February, after which releases downstream of Hume transitioned from airspace management to supplying downstream demands. Inflows to Hume over the past week averaged around 7,700 ML/day and are expected to further recede over the coming week as dry conditions continue.

For now, the Hume Dam level is expected to steadily decrease as dry weather continues this week. However, with the upper Murray catchment remaining relatively wet for this time of year and the Hume storage level not far from full, the potential for another storage spill remains. River Operators will continue to work closely with the BoM to assess future rain and likely streamflow responses if another forecast for significant rain arises.

Further details about [flood management](#) at Hume Dam are available on the MDBA website.

Unregulated flows

With dry conditions, the Hume to Yarrawonga reach returned to regulated conditions this week. At the time of this report unregulated flows continue downstream of Yarrawonga Weir to the South Australian border.

River operators will closely monitor the coming week's forecast rain and flow responses and provide updated advice on unregulated flows in due course. 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 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 \(mdba.gov.au\)](#).

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 currently negligible. With unregulated flows to South Australia continuing and the Menindee Lakes available as a shared resource, transfers from Hume to meet lower system demands are unlikely to be required until March at the earliest.



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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

WaterNSW have recently declared several red and amber alerts for **blue-green algae** in the River Murray System. Currently, a **red alert** is declared for the Hume Dam. **Amber alerts** are current for the River Murray at Corowa, Mulwala Canal Offtake, Cobram, and Picnic Point. In the lower River Murray amber alerts are current for Echuca and all locations between Swan Hill and Fort Courage, near Wentworth. Along the Edward-Wakool River system **Amber alerts** are current for Gulpa Creek at Mathoura, Edward River at Deniliquin and Moulamein, and Wakool River at Kyalite. In the Murrumbidgee a **red alert** is declared for Yanga Lake at Regatta Beach. This information is available through [Goulburn-Murray Water](#), [WaterNSW](#) and [Water quality | Murray-Darling Basin Authority \(mdba.gov.au\)](#).

River operations

Over the last week **active storage** (Figure 1) increased by 54 GL to 8,090 GL (94% capacity).

At **Dartmouth Reservoir**, the [storage](#) increased by 5 GL to 3,578 GL (93% capacity). The release, measured at Colemans gauge, increased to target a rate of 450 ML/day. The increased rate is permissible within the minimum flow rules for Dartmouth Dam, which provide some flexibility to improve environmental conditions in the lower Mitta Mitta River, whilst continuing to meet water conservation objectives.

Hume Reservoir [storage](#) decreased by 33 GL to 2,931 GL (98% capacity). During the week, releases reduced to 7,500 ML/day before increasing at the end of the week to 13,000 ML/day to supply downstream demands. Over the coming week, the release is expected to increase further in response to downstream irrigation demands with warm and dry weather forecast.

Since the 2019-20 bushfires, Hume Dam operations have, at times, needed to consider altered water quality within the reservoir to help manage its effect on water quality downstream. This has required changes to the release configuration to improve dissolved oxygen levels and help aquatic animals downstream of the dam to breathe. In recent weeks operators have trialed a variety of configurations and have now implemented an optimal approach that will be further monitored and adjusted in the weeks ahead.

Lake Mulwala is currently at 124.8 m AHD and within the normal operating range (124.6 to 124.9 m AHD). Diversions to Mulwala Canal averaged 2,900 ML/day this week, while diversions into Yarrawonga Main Channel increased from averaged 1,120 ML/day.

With dry weather returning, water for the environment is once again being delivered to maintain the Yarrawonga Weir release at 8,500 ML/day during February. Several smaller regulators will remain open to the Barmah-Millewa Forest to support critical water bird nesting habitat whilst this flow continues, with the additional water use from this action covered by environmental water accounts.

Flow through the **Kolety** (pronounced Kol-etch)/**Edward River** offtake averaged 1,560 ML/day, while the **Gulpa Creek** offtake reduced from 570 to 220 ML/day over the last week. As flows reduced from the Millewa Forest to the Edward River, the flow downstream of **Stevens Weir** reduced to 1,000 ML/day. and the flow is expected to continue reducing in the coming week.

On the **Goulburn River**, the flow measured at [McCoys Bridge](#) reduced from near 1,000 ML/day to the previous rate near 700 ML/day. Information regarding opportunities for allocation trade between the Goulburn and Murray Valleys is available at the Victorian water register [website and the Goulburn-Murray Water website](#).

The [diversion](#) to **National Channel** is currently around 1,380 ML/day. Releases from **Torrumbarry Weir** averaged 8,300 ML/day and the release is expected to reduce over the coming week. The Torrumbarry weir pool is currently targeting 15 cm below FSL.

Inflow from the **Murrumbidgee River**, measured at [Balranald](#), remained above channel capacity over the past week, with flows expected to recede in the coming week



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Photo 1 Paringa Bridge in operation on the River Murray at Paringa South Australia. Photos: Tyson Milne

At **Euston Weir**, the [downstream release](#) remained steady and averaged 18,900 ML/day. The release is expected to remain near this rate for the coming week.

At **Menindee Lakes**, the storage is now rising as peak flows arrive from the Barwon-Darling River. The total [storage](#) volume increased to 1,702 GL (98% capacity). The airspace generated by WaterNSW in recent weeks is now being used to mitigate peak inflows resulting from widespread northern Basin flooding in late 2021. Upstream of Menindee Lakes, the flow at Wilcannia is currently steady at round 29,400 ML/day and is expected to slowly reduce in the coming days.



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Photo 2 The Great Darling Anabranch flows entering the River Murray Upstream of Lock 9. Photos: Peter Ebner

Releases to the lower Darling River (measured at Weir 32) have reduced from 18,000 ML/day to 14,700 ML/day over the last week. WaterNSW has also continued releases from Lake Cawndilla (part of Menindee Lakes) into the Great Darling Anabranch (currently around 2,000 ML/day). Over the coming week, WaterNSW will continue to reduce the Weir 32 release by 1,000 ML/day each day to a rate of 10,000 ML/day by 18 February. From 10,000 ML/day, the rate of reduction will be slowed considerably to prolong the recession and help with bank stability and water quality. Further information will be provided on the [WaterNSW](#) water insights portal. Downstream on the lower Darling at Burtundy, the flow continues near 14,200 ML/day and is expected reduce in the coming week.

Over the coming months, the MDBA will continue to revise forecasts and operational plans for the volume and timing of operational water to be released from Menindee Lakes to support all water users along the River Murray System once unregulated flows cease. This process is on-going and will follow the practices agreed by the New South Wales, Victorian, South Australian and Commonwealth governments as stated in the Murray-Darling Basin Agreement and the [Objectives and Outcomes for River Operations in the River Murray System](#). These practices require State and Commonwealth agencies to provide ongoing advice on release decisions, and implications for water security, delivery efficiency, the community, and environmental outcomes.

The flow downstream of **Wentworth Weir** is currently 29,500 ML/day and flows are expected to slowly reduce in the coming week.

At **Lock 9, Lock 8 and Lock 7** the pool levels are being managed near FSL. As the higher flows of recent months have started to subside at **Lock 7**, the weir was reinstated on Monday 14 February.

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The [storage](#) at **Tar-ru/Lake Victoria** increased by 19 GL this week to 82%. Inflows and outflows from Tar-ru/Lake Victoria are being managed to operate the storage volume in accordance with the Lake Victoria Operating Strategy (LVOS) as specified in the [Objectives and Outcomes for River Operations in the River Murray System](#). The LVOS aims to stabilize the lake foreshore and protect cultural heritage sites by encouraging the growth of native vegetation. To help achieve this, operations aim to reduce the length of time the foreshore vegetation is inundated. The storage level will be managed to maximize water availability by the end of the current unregulated flow event. Inflows to the lake remained at 5,000 ML/day this week to target the end of month storage volume specified in the LVOS.

The flow to **South Australia** averaged 26,200 ML/day as unregulated flows continue. Flows are expected to remain relatively steady in the coming week.

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 at the current point in time. For information on ADF and the ADF triggers please refer to [Objectives and Outcomes for River Operations in the River Murray System](#) (pages 79-80).

The **Lower Lakes** 5-day average water level is 0.64 m AHD. Barrage releases are continuing as unregulated flows reach the lower lakes. For further information on barrage releases and South Australia's Entitlement flow, see the South Australian Department for Environment and Water Weekly [Department for Environment and Water | Barrage flow data available at the click of a button](#).

For media inquiries contact the Media Officer on 02 6279 0141

ANDREW KREMOR

A/g Executive Director, River Management



Australian Government



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Water in Storage

Week ending Wednesday 16 Feb 2022

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	481.67	3 578	93%	71	3 507	+5
Hume Reservoir	192.00	3 005	191.63	2 931	98%	23	2 908	-33
Lake Victoria	27.00	677	25.95	553	82%	100	453	+19
Menindee Lakes		1 731*		1 702	98%	(480 #)	1 222	+63
Total		9 269		8 764	95%	--	8 090	+54
Total Active MDBA Storage							94% ^	

Major State Storages

Burrinjuck Reservoir	1 026	946	92%	3	943	-19
Blowering Reservoir	1 631	1 559	96%	24	1 535	+31
Eildon Reservoir	3 334	2 811	84%	100	2 711	-21

* 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 15 Feb 2022

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2021
Lake Eucumbene - Total	1 856	-1	Snowy-Murray	+8	523
Snowy-Murray Component	844	-1	Tooma-Tumut	+1	283
Target Storage	1 460		Net Diversion	7	241
			Murray 1 Release	+9	867

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)	26.7	587	Yarrawonga Main Channel (net)	7.9	116
Wakool Sys Allowance	0.0	8	Torrumbarry System + Nyah (net)	0.3	252
Western Murray Irrigation	1.2	20	Sunraysia Pumped Districts	4.7	84
Licensed Pumps	10.2	185	Licensed pumps - GMW (Nyah+u/s)	0.7	19
Lower Darling	14.0	230	Licensed pumps - LMW	18.8	336
TOTAL	52.1	1030	TOTAL	32.4	807

* 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	194.0 *	
Flow this week	188.2	(26 900 ML/day)
Flow so far this month	437.6	
Flow last month	932.1	

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

	Current	Average over the last week	Average since 1 August 2021
Swan Hill	80	90	80
Euston	-	-	-
Red Cliffs	170	170	140
Merbein	180	170	140
Burtundy (Darling)	420	390	330
Lock 9	280	270	170
Lake Victoria	230	220	150
Berri	260	270	180
Waikerie	280	290	200
Morgan	290	320	210
Mannum	280	280	220
Murray Bridge	290	290	230
Milang (Lake Alex.)	330	340	510
Poltalloch (Lake Alex.)	300	290	370
Meningie (Lake Alb.)	1 380	1 360	1 450
Goolwa Barrages	440	470	840



River Levels and Flows

Week ending Wednesday 16 Feb 2022

	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	-	-	-	1 280	R	1 970	2 630
Jingellic	4.0	1.61	208.13	3 960	F	5 810	7 150
Tallandoon (Mitta Mitta River)	4.2	1.56	218.45	900	R	740	810
Heywoods	5.5	2.77	156.40	8 880	R	9 450	8 210
Doctors Point	5.5	2.71	151.18	10 990	R	12 140	10 790
Albury	4.3	1.73	149.17	-	-	-	-
Corowa	4.6	2.27	128.29	9 990	F	12 260	12 240
Yarrowonga Weir (d/s)	6.4	1.40	116.44	8 450	S	8 480	12 400
Tocumwal	6.4	2.11	105.95	9 380	F	9 480	16 340
Torrumbarry Weir (d/s)	7.3	2.67	81.22	8 110	F	8 310	7 460
Swan Hill	4.5	1.53	64.45	8 250	R	7 880	7 120
Wakool Junction	8.8	4.00	53.12	12 180	S	12 220	12 070
Euston Weir (d/s)	9.1	3.03	44.87	18 670	S	18 940	19 160
Mildura Weir (d/s)	-	-	-	18 150	F	18 180	18 770
Wentworth Weir (d/s)	7.3	4.53	29.29	29 530	S	29 730	30 690
Rufus Junction	-	5.73	22.66	25 630	S	25 600	26 360
Blanchetown (Lock 1 d/s)	-	1.64	-	22 070	R	22 560	24 890
Tributaries							
Kiewa at Bandiana	2.8	1.44	154.67	1 100	R	900	1 070
Ovens at Wangaratta	11.9	8.21	145.89	1 160	F	1 330	2 170
Goulburn at McCoys Bridge	9.0	1.33	92.75	700	F	800	1 240
Edward at Stevens Weir (d/s)	5.5	1.35	81.12	1 100	F	1 880	2 010
Edward at Liewah	-	3.42	58.80	3 180	S	3 200	3 360
Wakool at Stoney Crossing	-	1.59	55.08	890	F	1 070	1 470
Murrumbidgee at Balranald	5.0	5.73	61.69	9 060	F	9 310	9 650
Barwon at Mungindi	6.1	3.60	-	1 700	F	2 050	1 970
Darling at Bourke	9.0	4.67	-	4 700	F	6 880	18 200
Darling at Burtundy Rocks	-	6.10	-	14 310	S	14 270	14 180

Natural Inflow to Hume	3 200	8 240
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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	-0.06	-	No. 7 Rufus River	22.10	+0.60	+3.42
No. 26 Torrumbarry	86.05	-0.15	-	No. 6 Murtho	19.25	+0.02	+1.40
No. 15 Euston	47.60	+0.02	-	No. 5 Renmark	16.30	+0.01	+1.21
No. 11 Mildura	34.40	+0.04	+0.72	No. 4 Bookpurnong	13.20	+0.03	+2.08
No. 10 Wentworth	30.80	+0.02	+1.89	No. 3 Overland Corner	9.80	+0.01	+1.41
No. 9 Kulnine	27.40	-0.02	+1.12	No. 2 Waikerie	6.10	+0.00	+1.45
No. 8 Wangumma	24.60	+0.02	+1.81	No. 1 Blanchetown	3.20	+0.01	+0.89

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.72
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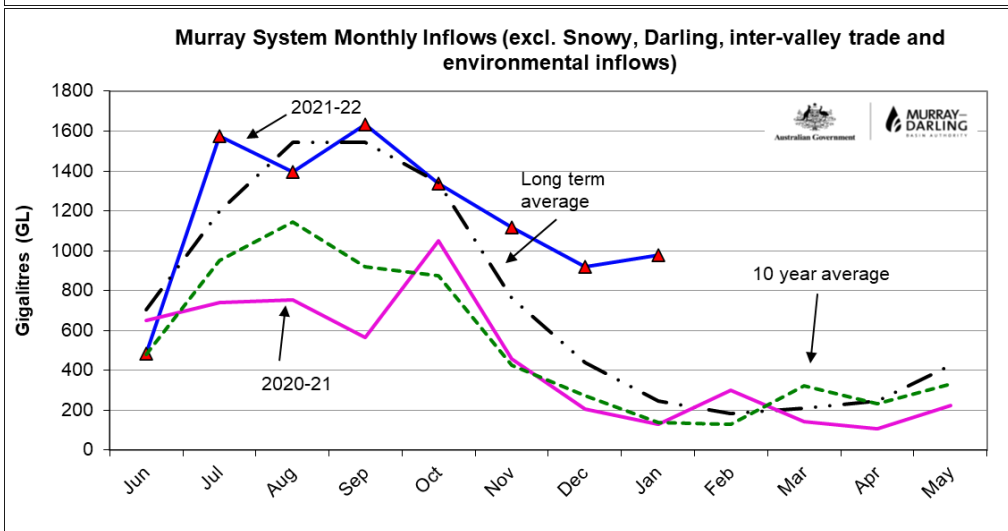
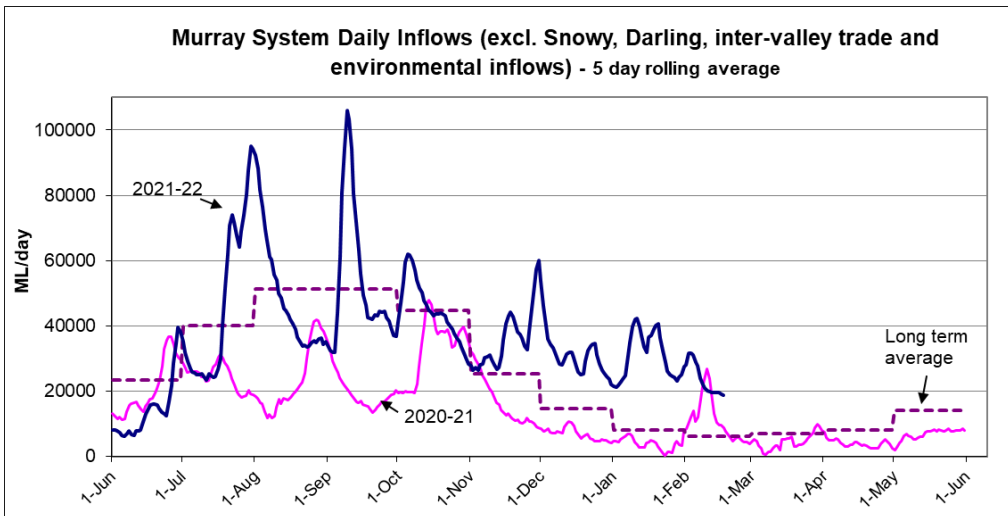
Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.69	3	-	Open	Open	-
Mundoo	26 openings	0.68	2	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	1	-	Open	-	-
Ewe Island	111 gates	-	6	-	-	-	Open
Tauwichee	322 gates	0.66	35	Open	Open	Open	-

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





State Allocations (as at 16 Feb 2022)

NSW - Murray Valley

High security	100%
General security	110%

Victorian - Murray Valley

High reliability	100%
Low reliability	100%

NSW – Murrumbidgee Valley

High security	100%
General security	100%

Victorian - Goulburn

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

