



River Murray Weekly Report

For the week ending Wednesday, 14 October 2020

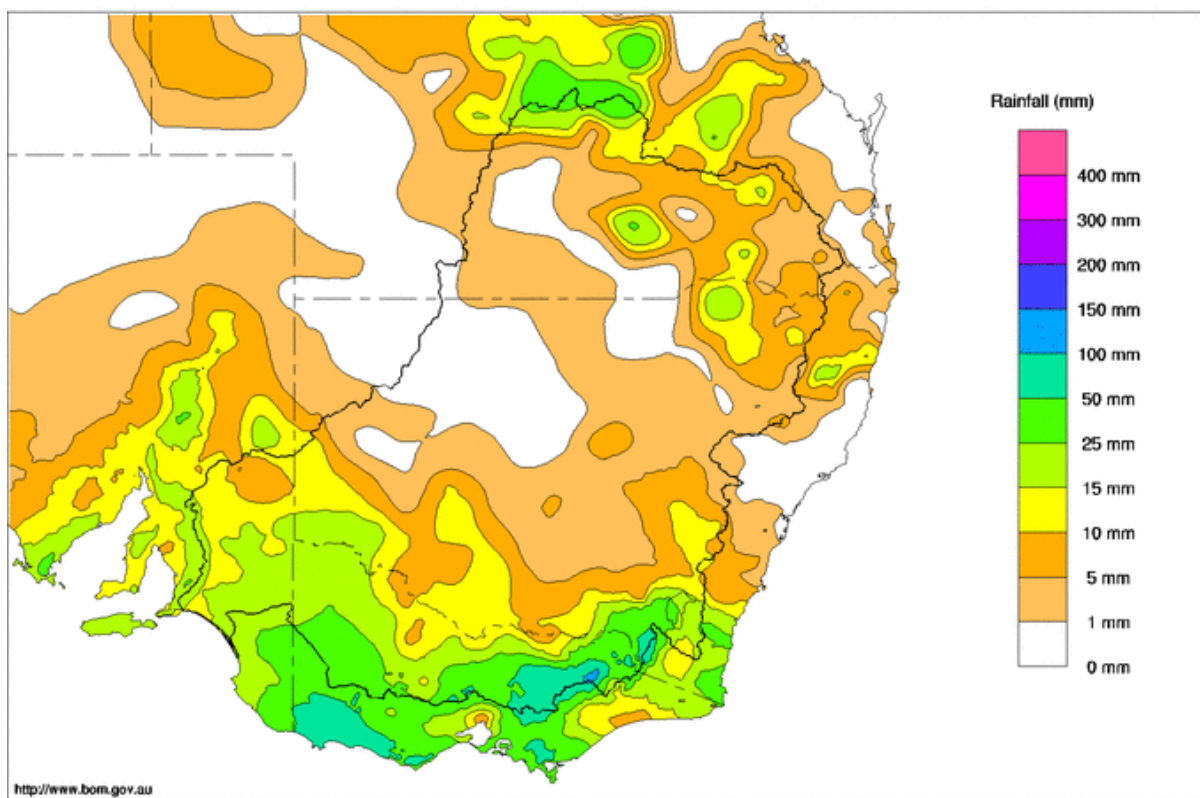
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Rainfall and inflows

Rainfall was widespread across the Murray-Darling Basin this week with the highest totals around the southern ranges (Map 1). In Victoria, Mount Buffalo and Mount Buller AWS in the Australian Alps recorded totals of 132 mm and 128 mm respectively, and Mount William in the Wimmera recorded 94 mm. In New South Wales, Thredbo AWS and Perisher Valley AWS in the Snowy Mountains (and just outside the Basin) recorded 96 mm and 86 mm respectively.

The Bureau of Meteorology (BoM) is currently forecasting further rainfall across the southern Murray-Darling Basin in the coming [8 days](#).

Murray-Darling Rainfall Totals (mm) Week Ending 14th October 2020
Australian Bureau of Meteorology



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

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Issued: 14/10/2020

Map 1 - Murray-Darling Basin rainfall totals for week ending 14 October 2020 (Source: Bureau of Meteorology)

Significant stream flow responses were observed following the rainfall this week. Upstream of Dartmouth Dam, flow in the Mitta Mitta River at Hinnomunjie Bridge increased to around 6,000 ML/d. This is the highest flow rate observed since May. On the Murray River upstream of Hume, the flow at Jingellic peaked at around 17,500 ML/d. Downstream of Hume, Peechelba on the Ovens River peaked at around 16,700 ML/d which is also the highest flow rate recorded at this site since May. 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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River operations

- NSW Murray general security allocations and Victorian Murray high reliability water shares increase
- Hume dam releases reduced in response to rainfall
- Water for the environment supporting Murray Cod outcomes in the Murray and Lower Darling

River operations and the COVID-19 virus

The MDBA is continuing to work with government partners and stakeholders during this challenging time. In response to the impact of COVID-19, the MDBA has enacted business continuity arrangements to ensure the continued operation of our business functions. River operations have been identified as a priority in this time as running the river is essential to supporting irrigation supply to [agricultural industries](#).

We hope all our community members remain safe at this time. We encourage all river users to evaluate plans against government advice, physical distancing and travel, and to support actions to limit the spread of COVID-19.

Water quality impacts

Amber alerts for **blue-green algae** remain current in the River Murray system for the Gulpa Creek at Mathoura, the Edward River at Old Morago, River Murray at Buronga and River Murray at Lock 8. 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](#).

Following the Bureau of Metrology's [declaration of La Niña](#) last week and continued [wet rainfall outlook](#) across south eastern Australia, Murray Darling Basin communities should be aware there is a significant risk of hypoxic blackwater events occurring particularly in New South Wales. After three hot and dry years, floodplains have a high load of leaf litter. La Niña conditions in spring increase the risk of floods, which can wash organic matter into waterways and lead to hypoxic blackwater events. More information is provided in a [MDBA and WaterNSW joint media release](#).

Monthly snapshot of water in the system

River Murray communities can now access a monthly point-in-time snapshot that shows what water is in the river for the environment compared with water for towns, industries and irrigators.

Every day, water enters the river at different points and for different purposes, including irrigation, town water supply, industries and specific environmental benefits. The monthly snapshot shows in simple terms the volume of flow and the extent to which it comprises water for the environment at five locations—in the Murray River at Yarrowonga and the South Australian border, and in the Murrumbidgee, Goulburn and Darling rivers just upstream of their junction with the Murray. Find out more on [Flows in the River Murray system](#).

River operations

Over the past week, MDBA total active storage increased by 142 GL to 4,866 GL (58% capacity).

At **Dartmouth Reservoir**, the [storage](#) level increased by 43 GL to 2,241 GL (58% capacity). The release, measured at Colemans, continued to target the minimum flow rate of 200 ML/d.

At **Hume Reservoir** the [storage](#) level increased by 114 GL to 2,183 GL (73% capacity). Releases returned to the minimum rate of 600 ML/day over the weekend as inflows from the Kiewa and Ovens Rivers increased. Over the coming days and weeks, Hume releases will continue to be influenced by rainfall, irrigation demands and orders for water for the environment.

At **Lake Mulwala**, the pool [level](#) is 124.75 m AHD and within the normal operating range of between 124.6 and 124.9 m AHD. Total daily diversion at the major irrigation off-takes increased from 1,400 ML/d to 3,500 ML/day over the week and is expected to reach around 3,900 ML/d in the coming days as temperatures continue to increase. It is anticipated that demands will ease later in the week as irrigators responded to the rainfall



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forecast, although to what extent is uncertain. Whilst the current [outlook](#) suggests moderate rainfall totals could be expected in the upper Murray catchments, only modest totals are forecast in NSW around the irrigation areas.

The [release](#) from **Yarrowonga Weir** peaked around 16,000 ML/d on Thursday 15 October as inflows from the Kiewa and Ovens Rivers move downstream. As this natural 'fresh' or flow pulse recedes and over the coming weeks, a water order has been placed by environmental water holders (EWH's) for river operators to target a release rate of around 15,000 ML/d downstream of Yarrowonga Weir. This flow rate is being targeted to provide water levels that support the Murray Cod nesting season, while also increasing lateral connectivity between the River Murray and the **Barmah—Millewa Forest**. This greater connectivity has been enabled by the opening of selected regulators in the forest which promotes increased productivity in the river and supports plants and animals in the forest (Photo 1). All actions associated with water for the environment are tracked and water usage debited from environmental water holder accounts.



Photo 1 – Great Egrets at the shallowly flooded Steamer Plain wetland within Barmah forest (Photos courtesy GBCMA)

Next week, the flow downstream of Yarrowonga may return above 15,000 ML/d, but this will depend on rainfall and any subsequent inflows from the Ovens and Kiewa Rivers. BoM produce 7-day stream flow forecasts for a number of tributaries including the Ovens and Kiewa Rivers and these are available on their [website](#).

This week flow through the **Edward River Offtake** averaged around 1,450 ML/d, while flow through the **Gulpa Creek Offtake** was increased to around 350 ML/d. Flow in the Edward system is currently being supplemented by the release of around 400 ML/d from Edward Escape to help meet increasing demands at Wakool Main Canal (currently diverting 1,000 ML/day and forecast to increase to 1,600 ML/d in coming days). The release from Stevens Weir is currently around 600 ML/d.

On the **Goulburn River**, the flow measured at [McCoys Bridge](#) peaked at 9,800 ML/d. This higher flow is due to tributary inflows following rainfall in the Goulburn catchment during the week. Information regarding opportunities for allocation trade between the Goulburn and Murray Valleys is available at the Victorian water register [website](#).

[Diversions](#) to National Channel from the **Torrumbarry Weir** pool increased to around 1,500 ML/d. A portion of this flow is being used to maintain baseflows in the Gunbower Creek with the aim of providing increased habitat for native fish and other aquatic animals over the spring period. Flow in Gunbower Creek returns to the River Murray



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via Koondrook Spillway, downstream of Torrumbarry Weir near Barham. This week the [release downstream](#) of Torrumbarry Weir increased to 11,000 ML/d in response to increasing inflows from the Goulburn River.

Inflow from the **Murrumbidgee River**, measured at [Balranald](#), averaged near the October end of system target of 1,030 ML/d. The [Murrumbidgee IVT balance](#) is open for trade from the Murray to the Murrumbidgee (102 GL) but remains closed for trade from the Murrumbidgee to the Murray.

At **Euston Weir**, the [weir pool level](#) is at FSL. The [downstream release](#) averaged near 8,000 ML/d and is forecast to rise over the coming week toward around 13,000 ML/day.

Menindee Lakes storage eased this week to around 465 GL (27% capacity). The downstream release, measured at Weir 32, remains near 400 ML/d, with small releases of water for the environment continuing. These flows aim to improve the condition of the lower Darling and help Murray Cod breed this spring. For more information refer to the [Commonwealth Environmental Water Office](#) and [NSW Department of Planning, Industry and Environment](#). Some [water restrictions](#) remain current in NSW. Links to drought services and assistance can be accessed via the MDBA [drought webpage](#).

At **Wentworth Weir**, the weir pool level is being managed at around FSL. The downstream flow averaged around 7,000 ML/d.

Downstream at **Lock 9, Lock 8 and Lock 7** weir pools continue to vary near FSL, within their normal operating range.

The [storage](#) level at **Lake Victoria** fell by 15 GL to 636 GL (94% capacity) this week as releases were made to deliver the required flow to South Australia. The volume stored in Lake Victoria is forecast to continue falling away over the coming fortnight before rising again as recent inflows from tributaries downstream of Hume arrive and are captured, contributing to improved water availability for all water entitlement holders.

The [flow](#) to **South Australia** averaged 9,000 ML/d and includes the October South Australian monthly entitlement plus water for the environment and traded volumes.

The **Lower Lakes** 5-day average water level is 0.88 m AHD. Unregulated flows and delivery of water for the environment into the Lower Lakes over the past few months have allowed large volumes to be released through the barrages to target outcomes in the Coorong and at the Murray Mouth. Increased barrage releases will continue to be made when conditions allow to push fresh water into the Coorong. 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

ANGUS PATON
Acting Executive Director, River Management



Australian Government



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Water in Storage

Week ending Wednesday 14 Oct 2020

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	457.23	2 241	58%	71	2 170	+43
Hume Reservoir	192.00	3 005	187.53	2 183	73%	23	2 160	+114
Lake Victoria	27.00	677	26.66	636	94%	100	536	-15
Menindee Lakes		1 731*		465	27%	(- -) #	0	-4
Total		9 269		5 525	60%	- -	4 866	+138
Total Active MDBA Storage							58% ^	

Major State Storages

Burrinjuck Reservoir	1 026	818	80%	3	815	+4
Blowering Reservoir	1 631	1 344	82%	24	1 320	+29
Eildon Reservoir	3 334	2 137	64%	100	2 037	+142

* 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 13 Oct 2020

Storage	Active Storage (GL)	Weekly Change (GL)	Diversions (GL)	This Week	From 1 May 2020
Lake Eucumbene - Total	1 287	+64	Snowy-Murray	+1	422
Snowy-Murray Component	605	+42	Tooma-Tumut	+10	158
Target Storage	1 400		Net Diversion	-9	264
			Murray 1 Release	+19	612

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)	16.9	162	Yarrowonga Main Channel (net)	4.8	32
Wakool Sys Allowance	n/a	30	Torrumbarry System + Nyah (net)	6.2	64
Western Murray Irrigation	0.3	2	Sunraysia Pumped Districts	1.4	12
Licensed Pumps	n/a	47	Licensed pumps - GMW (Nyah+u/s)	0.2	2
Lower Darling	0.0	0	Licensed pumps - LMW	7.6	50
TOTAL	17.2	241	TOTAL	20.2	160

* 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	170.0 *	
Flow this week	62.9	(9 000 ML/day)
Flow so far this month	138.5	
Flow last month	274.0	

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

	Current	Average over the last week	Average since 1 August 2020
Swan Hill	90	110	120
Euston	-	-	-
Red Cliffs	150	150	140
Merbein	150	160	180
Burtundy (Darling)	390	380	310
Lock 9	160	160	140
Lake Victoria	130	130	120
Berri	170	160	150
Waikerie	210	210	200
Morgan	210	210	200
Mannum	200	210	220
Murray Bridge	250	250	240
Milang (Lake Alex.)	770	790	850
Poltalloch (Lake Alex.)	470	470	470
Meningie (Lake Alb.)	1 640	1 600	1 680
Goolwa Barrages	930	980	1 430



River Levels and Flows

Week ending Wednesday 14 Oct 2020

	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	-	-	-	5 040	F	5 360	4 220
Jingellic	4.0	2.50	209.02	11 820	F	14 250	8 140
Tallandoon (Mitta Mitta River)	4.2	1.83	218.72	1 680	F	1 850	990
Heywoods	5.5	1.42	155.05	600	S	1 130	3 800
Doctors Point	5.5	2.06	150.53	4 850	S	4 660	6 060
Albury	4.3	1.12	148.56	-	-	-	-
Corowa	4.6	1.27	127.29	4 490	R	4 580	5 690
Yarrowonga Weir (d/s)	6.4	1.84	116.88	11 650	R	9 690	8 320
Tocumwal	6.4	2.25	106.09	10 280	R	8 690	7 900
Torrumbarry Weir (d/s)	7.3	3.42	81.97	10 990	R	9 650	5 180
Swan Hill	4.5	1.80	64.72	10 080	R	7 480	5 530
Wakool Junction	8.8	3.25	52.37	9 230	R	7 770	7 330
Euston Weir (d/s)	9.1	1.52	43.36	8 260	R	7 880	8 480
Mildura Weir (d/s)	-	-	-	7 020	F	7 190	8 620
Wentworth Weir (d/s)	7.3	2.92	27.68	6 620	F	6 990	8 130
Rufus Junction	-	3.57	20.50	7 170	F	8 060	9 900
Blanchetown (Lock 1 d/s)	-	0.94	-	7 310	F	9 140	8 570
Tributaries							
Kiewa at Bandiana	2.8	2.86	156.09	4 580	F	3 800	1 920
Ovens at Wangaratta	11.9	11.19	148.87	12 650	F	12 220	4 490
Goulburn at McCoys Bridge	9.0	5.29	96.71	9 770	R	7 000	2 440
Edward at Stevens Weir (d/s)	5.5	0.90	80.68	610	F	740	1 050
Edward at Liewah	-	1.85	57.23	1 150	F	1 190	990
Wakool at Stoney Crossing	-	1.37	54.87	390	F	410	440
Murrumbidgee at Balranald	5.0	1.52	57.48	1 100	R	1 070	1 240
Barwon at Mungindi	6.1	3.13	-	80	F	90	100
Darling at Bourke	9.0	4.04	-	230	S	250	330
Darling at Burtundy Rocks	-	0.76	-	220	F	250	260

Natural Inflow to Hume	25 630	14 110
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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	-0.15	-	No. 7 Rufus River	22.10	+0.09	+1.26
No. 26 Torrumbarry	86.05	+0.00	-	No. 6 Murtho	19.25	+0.11	+0.27
No. 15 Euston	47.60	+0.00	-	No. 5 Renmark	16.30	+0.14	+0.47
No. 11 Mildura	34.40	-0.02	+0.12	No. 4 Bookpurnong	13.20	+0.30	+0.77
No. 10 Wentworth	30.80	-0.01	+0.28	No. 3 Overland Corner	9.80	+0.01	+0.45
No. 9 Kulnine	27.40	+0.01	+0.16	No. 2 Waikerie	6.10	+0.20	+0.38
No. 8 Wangumma	24.60	+0.07	+0.28	No. 1 Blanchetown	3.20	+0.18	+0.19

Lower Lakes FSL = 0.75 m AHD

Lake Alexandrina average level for the past 5 days (m AHD)	0.88
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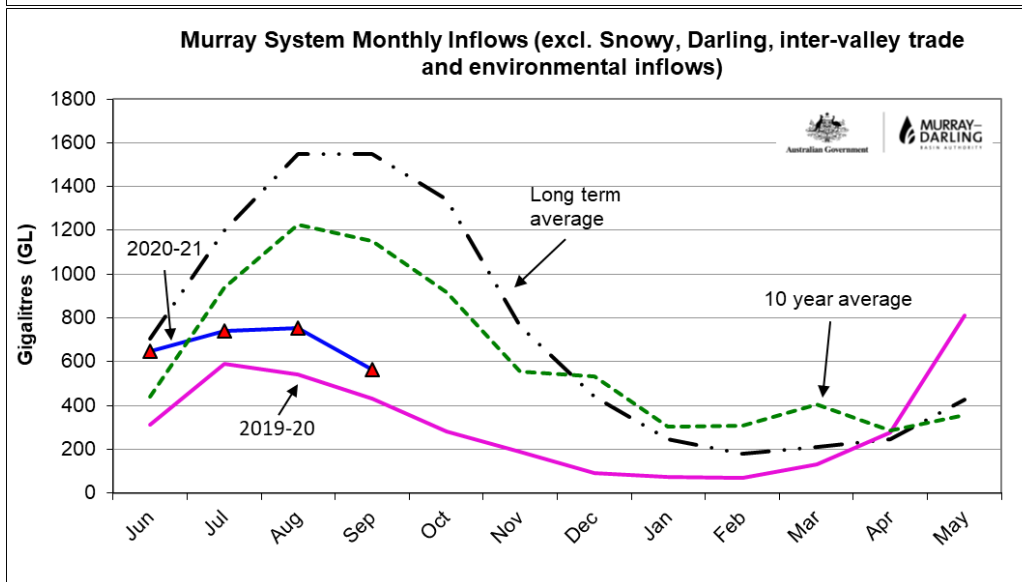
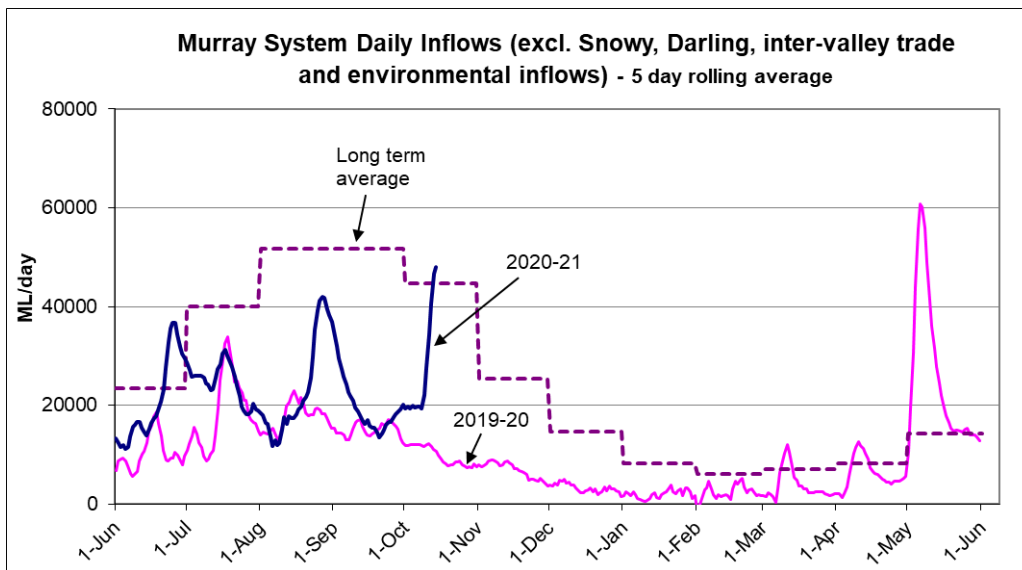
Barrages

Fishways at Barrages

	Openings	Level (m AHD)	No. Open	Rock Ramp	Vertical Slot 1	Vertical Slot 2	Dual Vertical Slots
Goolwa	128 openings	0.91	4	-	Open	Open	-
Mundoo	26 openings	0.88	1	-	-	-	Open
Hunters Creek	-	-	-	-	Open	-	-
Boundary Creek	6 openings	-	1	-	Open	-	-
Ewe Island	111 gates	-	All closed	-	-	-	Open
Tauwichee	322 gates	0.92	10	Open	Closed	Open	-

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





State Allocations (as at 15 Oct 2020)

NSW - Murray Valley

High security	97%
General security	26%

Victorian - Murray Valley

High reliability	55%
Low reliability	0%

NSW - Murrumbidgee Valley

High security	95%
General security	54%

Victorian - Goulburn Valley

High reliability	77%
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>

