

17 October 2022

Murrumbidgee Regulated River Water Source

Water allocation update

There is a 3% increase to general security allocation in the Murrumbidgee regulated river water source. The cumulative general security allocation for the 2022/23 water year is now at 53% of entitlement. With average carryover of approximately 28%, total general security water availability for the 2022/23 water year is around 81% of entitlement.

Storages are full and airspace operations are underway, meaning there is currently no ability to capture new resource. Significant resource improvements, and therefore allocation increases, will come from usage of the regulated resource, followed by inflows backfilling this airspace. The timing of significant allocation improvements is therefore dependent on increased demand for water.

Usage remains low this water year, including from uncontrolled flows. Just 25 gigalitres (GL) has been used from uncontrolled flows compared with 126 GL in October last water year. This has slowed allocations compared with last water year.

Due to significant events in the electricity market, delivery of the Required Annual Release (RAR) from Snowy Hydro has been earlier and more quickly than previous water years. With full storages, much of the released RAR has not been useful as it could not be captured to underpin allocations or used to for regulated demand. This usually reliable resource has been lost from the valley.

In accordance with the requirements of the water sharing plan, as general security water availability (allocations plus carryover) has exceeded 80% of entitlement, a small volume from current resource improvements has been set aside to meet *Provisional Storage Volume 1* (PSV1) requirements.

The Murrumbidgee Inter-Valley Trade (IVT) account balance was spilt on 31 August 2022. Information on the current Murrumbidgee IVT account balance and therefore the current trade status, can be found at: www.waternsw.com.au

The ongoing wet conditions are supporting periods of supplementary access. Subject to individual licence conditions and approved periods of access, users can take supplementary water and use uncontrolled flow provisions. Supplementary access details can be found at: waterinsights.waternsw.com.au

2022/23	High Security	General Security	Average Carryover
Murrumbidgee	95%	53%	28%

Storage levels (as of 17 October 2022)

- Blowering Dam is about 99% full – airspace operations*, holding about 1,620,000 megalitres (ML).
- Burrinjuck Dam is about 97% full – airspace operations, holding about 1,000,000 ML.

* Airspace operation is the controlled release of water to reduce the risk and size of a potential uncontrolled spill.

Climatic outlook

The Bureau of Meteorology’s seasonal outlook for November 2022 to January 2023 indicates that rainfall is likely to be above average across the catchment. Day time temperatures are likely to be average to below average for the catchment, while overnight temperatures are likely to be above average.

The Bureau’s El Niño-Southern Oscillation (ENSO) outlook indicator remains at La Niña, with a La Niña event currently underway. Models indicate that the La Niña may peak during spring and return to neutral conditions early in 2023. The Indian Ocean Dipole (IOD) index remains negative, with models suggesting that negative IOD conditions may persist into late spring. Negative IOD and La Niña conditions increases the chances of above average rainfall. Further details at:

www.bom.gov.au/climate/outlooks/#/overview/summary

Trade

Trade **out of** the Murrumbidgee Valley is **closed** and trade **into** the Murrumbidgee is **open** (as of 17 October 2022). Water users should monitor the WaterNSW website (www.waternsw.com.au) for daily information about the IVT account balance, the status of trade and other information. The Murrumbidgee IVT account is operated between its normal 0 GL and 100 GL range, and the account balance may vary daily. **The Murrumbidgee IVT balance was spilt on 31 August 2022. There is no further IVT carryover water to spill from the Murrumbidgee IVT account this water year.**

Interstate 71V restriction

A temporary restriction on interstate water trades (clause 71V of the *Water Management Act 2000*) into the NSW Murray, Lower Darling and Murrumbidgee regulated river water sources from other states was announced on 5 August 2022.

Interstate trades are typically accompanied by a reassignment of physical water (resource) in storages from the selling state to the buying state. Due to full storages and ongoing wet conditions, there is limited capacity to hold reassigned resource and a high risk that any resource which is reassigned will spill. Therefore, interstate trades into NSW cannot be safely underpinned by resource. Should NSW accept incoming interstate trades, it is likely to impact current resources, which have already been allocated, to meet the trade. This would adversely impact existing NSW Murray allocations and water users. Therefore, a temporary restriction on interstate trades into NSW has been put in place to protect NSW water users.

The temporary restriction will remain in force until 31 December 2022, unless repealed earlier should NSW storage levels reduce sufficiently to safely receive traded water.

More information on temporary water restrictions can be found at the following link:

www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions

Uncontrolled Flow (without-debit-take)

The water sharing plan permits general security water users to take water from uncontrolled flows (also known as unregulated flows) without-debit from their account water. This is permitted during periods of announced supplementary access. Supplementary access details can be found at: waterinsights.waternsw.com.au

Without-debit-take from uncontrolled flows by individual **general security entitlement** holders is subject to the following rules as outlined in the water sharing plan:

- Without-debit-take from uncontrolled flows (i.e. during periods of unregulated flows when supplementary access is permitted) is allowed when the effective available water for the current water year is less than or equal to 70% of entitlement (i.e. 0.7 megalitres per unit share component). Exercising of without-debit-take provisions is subject to the licence conditions of the respective individual entitlement/licence.
- The effective available water for an individual general security entitlement is defined as
 - just the general security allocation for the current water year if the carryover is less than 15% of entitlement for the relevant licence, or
 - the general security allocation for the current water year **plus** the carryover less 15% of entitlement, when carryover is greater than 15% of entitlement for the relevant licence.
- The effective available water in the current water year **plus** without-debit-take from uncontrolled flows cannot exceed 85% of an individual entitlement's share components (i.e. 0.85 megalitre per unit share component). Should these respective values sum to greater than 85% (for example, due to allocations increasing), then without-debit-take volumes will be converted to debit-take, to the extent necessary to bring the sum down to 85% of entitlement. That is, the account will reflect the new allocation as already having been used.
- When the effective available water in the current water year is greater than or equal to 85% of entitlement (i.e. 0.85 megalitre per unit share) for an individual entitlement, all without-debit-take will have converted to debit-take.

Water users should refer to the licence conditions of their individual licences for further details of rules applicable to their entitlements. Total uncontrolled flow (UCF) take to date on general security entitlements is estimated to be around 25 GL as of 12 October 2022.

Next announcement

The next water allocation statement will be published on **Tuesday 1 November 2022**. It will be a short statement, updating the latest improvement in resources and allocations.

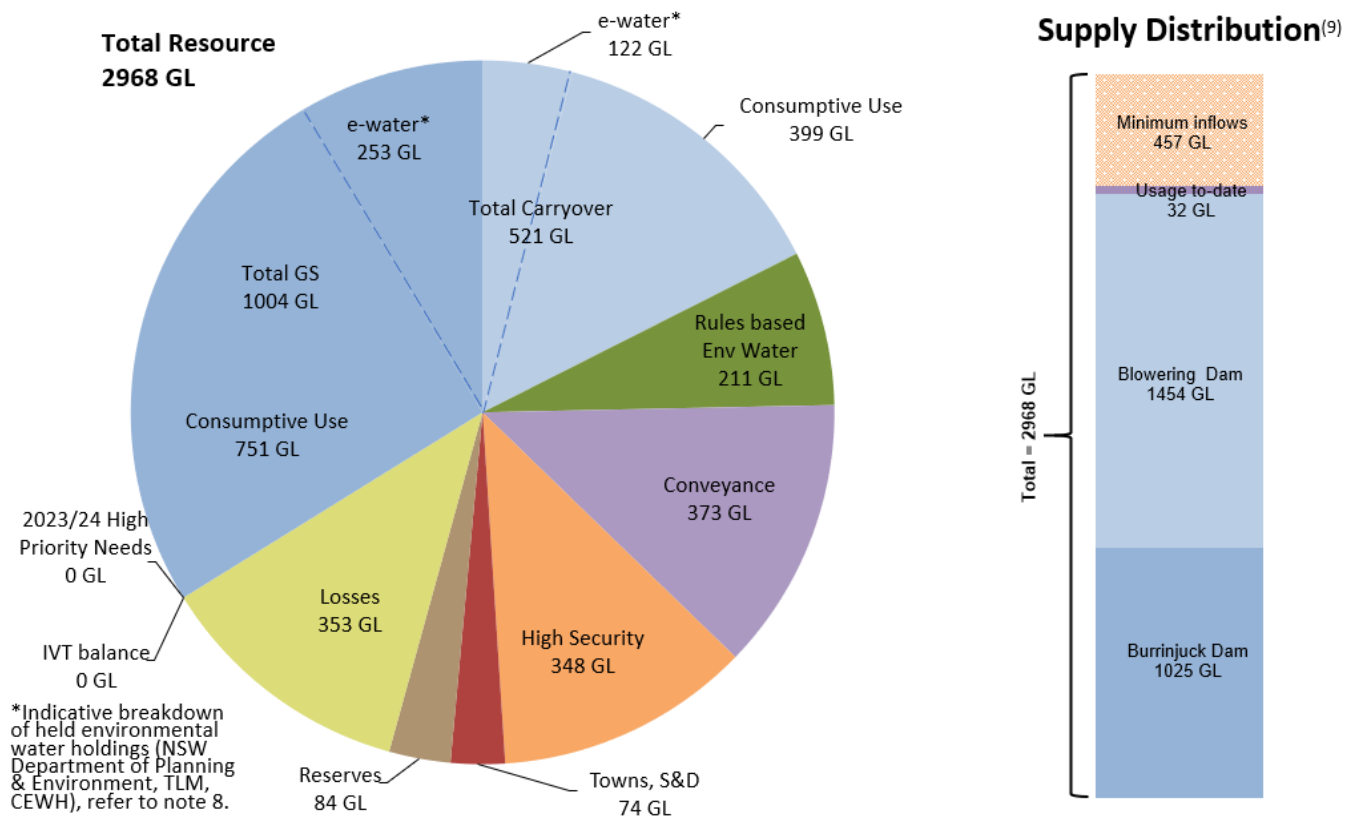
Note: Murrumbidgee statements are now available around 2:30pm on the day of the publication.

Murrumbidgee resource assessment data sheet

Resource Distribution* (17 October) for 2022/23	Volume (GL)
Total Available Resource ⁽¹⁾	2,968
<i>less</i>	
Carryover ⁽⁸⁾	521
Rules based Environmental Water ⁽²⁾	211
Towns, Stock, Domestic (100%)	74
Reserves ⁽³⁾	84
Conveyance ⁽⁴⁾	373
Announced High Security (95%)	348
Losses (transmission, evaporation, operational) ⁽⁵⁾	353
Murrumbidgee IVT account (carryover on 1 July) ⁽⁶⁾	0
Announced General Security (53%) ⁽⁸⁾	1,004
Year 2 (2023/24) high priority needs ⁽⁷⁾	0

*See notes below

Murrumbidgee resource distribution 2022/23 – 17 October 2022



*See notes below

Data sheet notes

- 1) Total available resource – total active storage volume (Blowering & Burrinjuck Dams) at the day of assessment plus any usable flows in transit plus minimum inflows for rest of the year plus Snowy Hydro’s assured Required Annual Release (RAR) (including any flex (pre-release) from the prior year), as well as estimated usage to date. Snowy Hydro’s net Jounama Release for this year (2022/23) is estimated to be about 583 GL (includes montane release).
- 2) Rules-based environmental water – water required to be set aside under water sharing plans to provide for riverine environments. Includes end-of-system flow requirements (currently 101 GL) and environmental water allowances (EWA1 = 75 GL, EWA2 = 35 GL, EWA3 = 0 GL). Excludes ‘licence-based’ environmental water also known as held environmental water (HEW). This total volume typically reduces as water is used during the year.
- 3) Reserves – required primarily under statutory plans, and mainly used for emergency purposes and critical needs. Includes 25 GL per dam as an operational reserve, and Provisional Storage Volumes (PSV1 = 34 GL, PSV2 = nil).
- 4) Conveyance entitlement – a category of access licence originally issued to Irrigation Corporations to facilitate delivery of water through their channel systems. Allocation to this category is prescribed in the water sharing plans and is a function of high and general security allocations. Conveyance licences in the Murrumbidgee valley can also carryover 30% of their entitlement.
- 5) Losses – the best estimate of the volume required to run the river under dry conditions to meet demands for the rest of the water year. Includes storage evaporation, transmission and operational loss. This estimate is updated monthly.
- 6) IVT carryover value into 2022/23. Does not always the current IVT balance. Balance was spilt on 31 August 2022.
- 7) 2023/24 high priority needs on 1 July 2023 - volume set aside to cover high priority needs on 1 July 2023, for ‘Year 2’, including potential carryover.
- 8) Held environmental water (HEW) – licenced water administered by environmental water holders is reported here, with the associated portions of general security allocation and carryover also identified in the above pie chart. This reporting of held environmental water is the total credited to accounts (not usage) and is estimated to be 253 GL of GS, 15 GL of HS, 67 GL of conveyance allocation and 122 GL of GS carryover. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Department of Planning and Environment, The Living Murray and the Commonwealth Environmental Water Holder. Details on environmental holdings can be found on individual agency websites.
- 9) Supply Distribution – the distribution of supply includes volumes at the time of the assessment for the following categories: active volumes in the dams, indicative usage to-date (may be estimates prior to reconciliation with hydrographic updates) and assumed minimum future inflows (includes Snowy Hydro’s guaranteed inflows for the water year, and late season inflows).

Comparison with this time last year

Item		Mid Oct 2021 (GL)	Mid Oct 2022 (GL)	Comments
Storage Volume (GL)	Burrinjuck	939	1,000	(includes dead storage and is capped at full supply volume)
	Blowering	1,561	1,620	(includes dead storage but does not account for Blowering Airspace requirements)
	Total	2,500	2,620	Similar
Losses (transmission, evaporation, operations)		305	353	Similar, slightly higher in 2022
1 July IVT carryover balance		92	0	1 July 2022 carryover IVT balance of 127 GL was spilt on 31 August 2022
GS Allocation		63%	53%	Lower in 2022 due to various factors including higher commitments (GS carryover, conveyance, EWA and losses) and low usage
Average GS Carryover		22%	28%	Greater in 2022/23

Chances of improvement

The chances of improved general security allocations, based on a repeat of historical inflows, are provided in the following table under a variety of conditions. The forecast is based on all available historical data, which is appropriate given the seasonal outlook, and gives a better outlook than using just the driest years on record (dry tercile). To be clear, the analysis considers historical data and does not explicitly consider the likely wet conditions in the seasonal rainfall forecast.

It is important to note that these estimates are indicative improvements only and are not guaranteed allocations.

Estimates and actual allocations may change based on weather conditions, water user behaviour, water management decisions and other operational matters. This means water users should use this information with caution and at their own risk.

Forecast general security allocations (%)

(Any carryover water can be added to these indicative allocations)

Repeat of historical inflow conditions		1 Dec 2022	1 Feb 2023
99 chances in 100 (extreme)	(99%)	53%	53%
9 chances in 10 (very dry)	(90%)	53%	53%
3 chances in 4 (dry)	(75%)	53%	53%
1 chance in 2 (mean)	(50%)	53%	53%
1 chance in 4 (wet)	(25%)	53%	59%*

Note 1: Estimated values indicative only, not guaranteed and subject to change based on actual events unfolding.

Note 2: Forecast assumes 28% general security carryover on average.

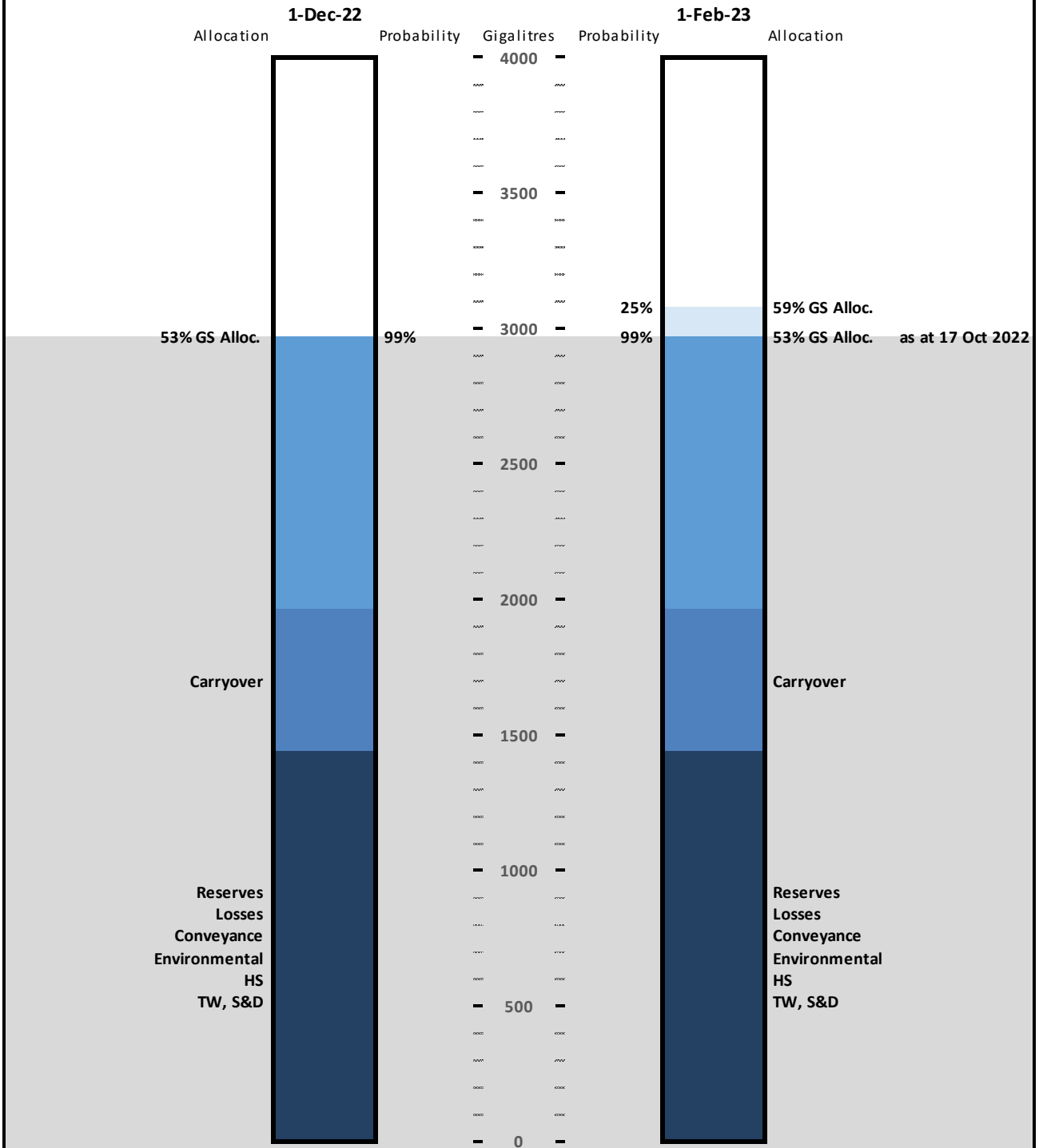
Note 3: Physical spills limit resource improvements as inflows are unable to be captured. Actual resource improvements will be highly dependent on the pattern of inflows and demands experienced over the coming months. With storages full, and future inflows at high risk of partial spill, there is high uncertainty in the numbers provided above.

Note 4: In the Murrumbidgee valley, general security (GS) account limit is 100% and carryover limit is 30%.

*The 25% wet case for 1 February 2023 forecasts 59% general security allocation, which equates to 87% total water availability (incorporating 28% average carryover on general security). As noted above, there is high uncertainty in these numbers, with improvements likely to be driven by the onset of water demand creating additional airspace to capture new resource. Inflow volumes are not the limiting factor to allocation improvements in this case, but rather the limited airspace to capture and regulate these inflows due to full storages. The forecast allocation is reducing as inflows from the wet season are spilling and assumed use is not occurring. With high uncertainty around the timing of water user demands increasing, water users should be aware that forecast allocations under these wet condition are low and lack confidence compared to forecasts made during dry to average years.

Murrumbidgee Valley Outlook

as at 17 October 2022



This figure provides indicative improvements in general security allocations for two forecast snapshots, 1 December 2022 and 1 February 2023. The allocation improvements are indicative only, and do not constitute guaranteed allocations. As of 17 October 2022, General Security allocation is at 53 per cent, and under 99% inflow conditions, will remain the same for the rest of the water year.

Allocations in 2022/23

Date	License Category	Increment	Total 2022/23
1-Jul	Domestic & Stock	100%	100%*
1-Jul	Local Water Utility	100%	100%*
1-Jul	High Security (sub-categories)	100%	100%*
1-Jul	High Security	0.95 ML/unit share	0.95 ML/unit share
1-Jul	Supplementary (Lowbidgee)	1.00 ML/unit share	1.00 ML/unit share*
1-Jul	Supplementary	1.00 ML/unit share	1.00 ML/unit share*
1-Jul	General Security	0.35 ML/unit share	0.35 ML/unit share
1-Jul	Conveyance	0.35 ML/unit share	0.35 ML/unit share
1-Jul	Murrumbidgee Irrigation Conveyance	0.7654 ML/unit share	0.7654 ML/unit share
1-Jul	Coleambally Irrigation Conveyance	0.8585 ML/unit share	0.8585 ML/unit share
15-Jul	General Security	0.03 ML/unit share	0.38 ML/unit share
15-Jul	Conveyance	0.03 ML/unit share	0.38 ML/unit share
15-Jul	Murrumbidgee Irrigation Conveyance	0.0204 ML/unit share	0.7858 ML/unit share
15-Jul	Coleambally Irrigation Conveyance	0.0175 ML/unit share	0.8760 ML/unit share
15-Aug	General Security	0.03 ML/unit share	0.41 ML/unit share
15-Aug	Conveyance	0.03 ML/unit share	0.41 ML/unit share
15-Aug	Murrumbidgee Irrigation Conveyance	0.0204 ML/unit share	0.8062 ML/unit share
15-Aug	Coleambally Irrigation Conveyance	0.0136 ML/unit share	0.8896 ML/unit share
1-Sep	General Security	0.05 ML/unit share	0.46 ML/unit share
1-Sep	Conveyance	0.05 ML/unit share	0.46 ML/unit share
1-Sep	Murrumbidgee Irrigation Conveyance	0.0340 ML/unit share	0.8402 ML/unit share

Date	License Category	Increment	Total 2022/23
1-Sep	Coleambally Irrigation Conveyance	0.0094 ML/unit share	0.8990 ML/unit share
15-Sep	General Security	0.01 ML/unit share	0.47 ML/unit share
15-Sep	Conveyance	0.01 ML/unit share	0.47 ML/unit share
15-Sep	Murrumbidgee Irrigation Conveyance	0.0068 ML/unit share	0.8469 ML/unit share
15-Sep	Coleambally Irrigation Conveyance	0.0019 ML/unit share	0.9008 ML/unit share
4-Oct	General Security	0.03 ML/unit share	0.50 ML/unit share
4-Oct	Conveyance	0.03 ML/unit share	0.50 ML/unit share
4-Oct	Murrumbidgee Irrigation Conveyance	0.0204 ML/unit share	0.8674 ML/unit share
4-Oct	Coleambally Irrigation Conveyance	0.0056 ML/unit share	0.9065 ML/unit share
17-Oct	General Security	0.03 ML/unit share	0.53 ML/unit share
17-Oct	Conveyance	0.03 ML/unit share	0.53 ML/unit share
17-Oct	Murrumbidgee Irrigation Conveyance	0.0395 ML/unit share	0.9068 ML/unit share
17-Oct	Coleambally Irrigation Conveyance	0.0056 ML/unit share	0.9120 ML/unit share

* Maximum allowable

Water allocation guide

The NSW Department of Planning and Environment – Water has produced a series of guides to describe the water allocation methods for most NSW regulated river systems. The guide for the Murrumbidgee regulated system is available at the link below:

www.industry.nsw.gov.au/water/allocations-availability/allocations/how-water-is-allocated/resource-assessment-process

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