10 November 2023

Macquarie and Cudgegong Regulated Rivers Water Source

Water allocation update

This latest resource assessment finds no increase in allocation for general security (GS) entitlement holders and likewise no increase in the environmental water allowance (EWA).

The total Macquarie water source account balance for general security licenses is now 693 gigalitres (GL), or about 113% of entitlement on average. Similarly, the Cudgegong water source average account balance is now about 20.8 GL or 111% of entitlement on average.

Low inflow conditions since the last assessment have meant no significant capture of new resources and no increase in allocations at this time. This resource assessment is conservatively based on information to 31 October 2023. Any changes in resources since then will be captured in the next routine statement in December.

Current allocation

10 November 2023	Allocation Increment	Average Account Balance
Macquarie GS	0%	113% (693 GL)
Cudgegong GS	0%	111% (20.8 GL)
Macquarie EWA	0%	70% (112 GL)
Cudgegong EWA	0%	155% (17.7 GL)

Dam levels (as of 9 November 2023)

- Burrendong Dam is 79.6% full – holding 954 GL.
- Windamere Dam is 94.2% full – holding 347 GL.

Key information

- A minimum of 25 GL of inflows will be required this month (November) before any allocation increment can be considered next month. This is subject to evaporation and delivery loss remaining within the budgeted volume.
- Burrendong dam received about 7.1 GL of inflows during October 2023.
- About 6.6 GL of EWA water was delivered from Cudgegong during October 2023.
- No bulk water transfers are expected to be required before June 2024.
- A storage outlook plot for the assessment horizon is provided later in this statement.

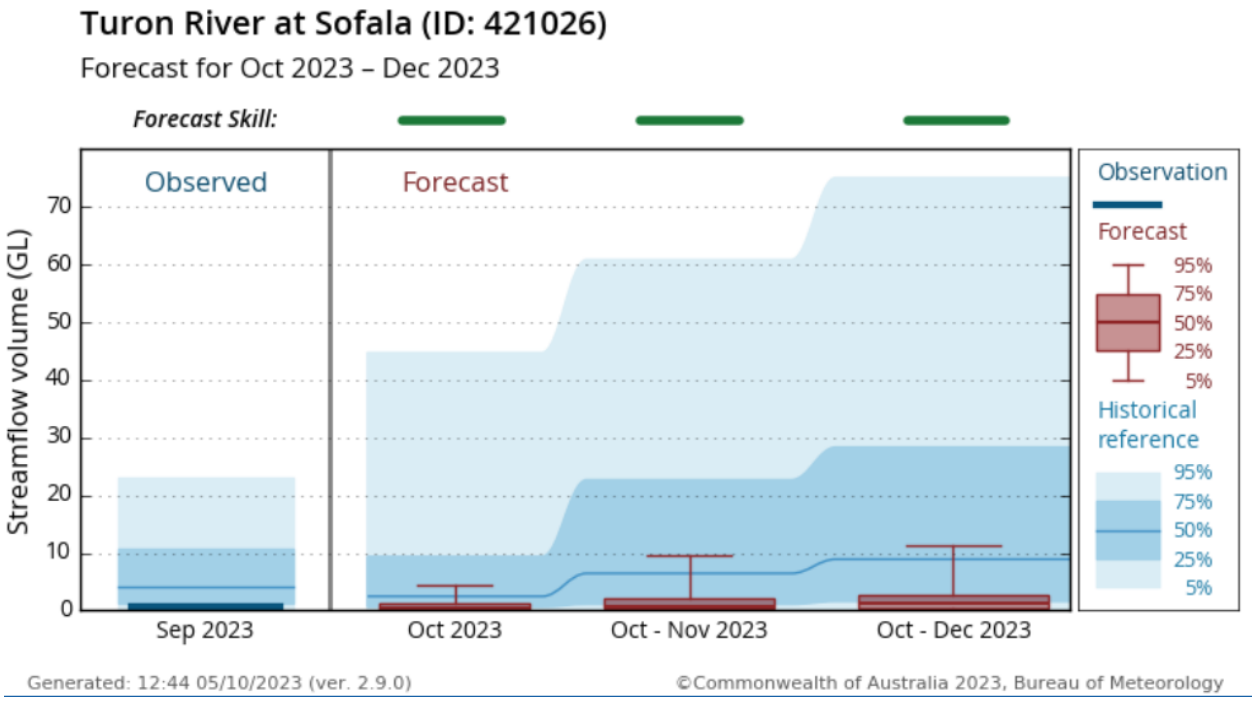
PUB23/1126

Climate and streamflow outlooks

The Bureau of Meteorology's seasonal outlook for November to January indicates that rainfall is likely to be below median across the catchment. Daytime and overnight temperatures are likely to be warmer than median over the next three months for the Macquarie catchment.

Further details at: www.bom.gov.au/climate/outlooks/#/overview/summary

The Bureau of Meteorology issues a seasonal flow forecast for the Turon River at Sofala, which drains into Burrendong Dam (see the figure below). This provides an indication of potential storage inflows. All forecast quantiles of total flow volumes from October to December are clearly lower than the historical flows. This is indicating a very likely dryer inflow into Burrendong Dam. The graph from October to December 2023 is shown below, and updates can be found at: www.bom.gov.au/water/ssf/?ref=ftr#id=421026



Resource distribution

Macquarie and Cudgegong Resource Assessment Data Sheet

Resource Distribution (November 2023 to May 2025)	Volume (GL)
Current and Future Resources [1]	1,221
less	
This water year (11/2023 to 06/2024)	
Environmental Water Allowance	112
Domestic, Stock, Town balance	18
High Security balance	9
General Security balance [2] [3]	693
Evaporation from Burrendong [4]	58
Rights, transmission, and operational losses [5]	131
Storage reserve for 2024/25	
Domestic, Stock, Town, and High Security [6]	34
Evaporation from Burrendong [4]	34
Rights, transmission, and operational losses [5]	156
equals	
Surplus (or deficit) [7]	(24)

Notes:

(1) Active Storage volume in Burrendong Dam at end of October (net of 34 GL of dead storage) plus minimum budgeted dam inflows from November 2023 to May 2025 plus the future planned 208 GL transfer available from Windamere Dam.

(2) Volume in general security accounts below Burrendong Dam inclusive of balances of current year allocation and carryover amount.

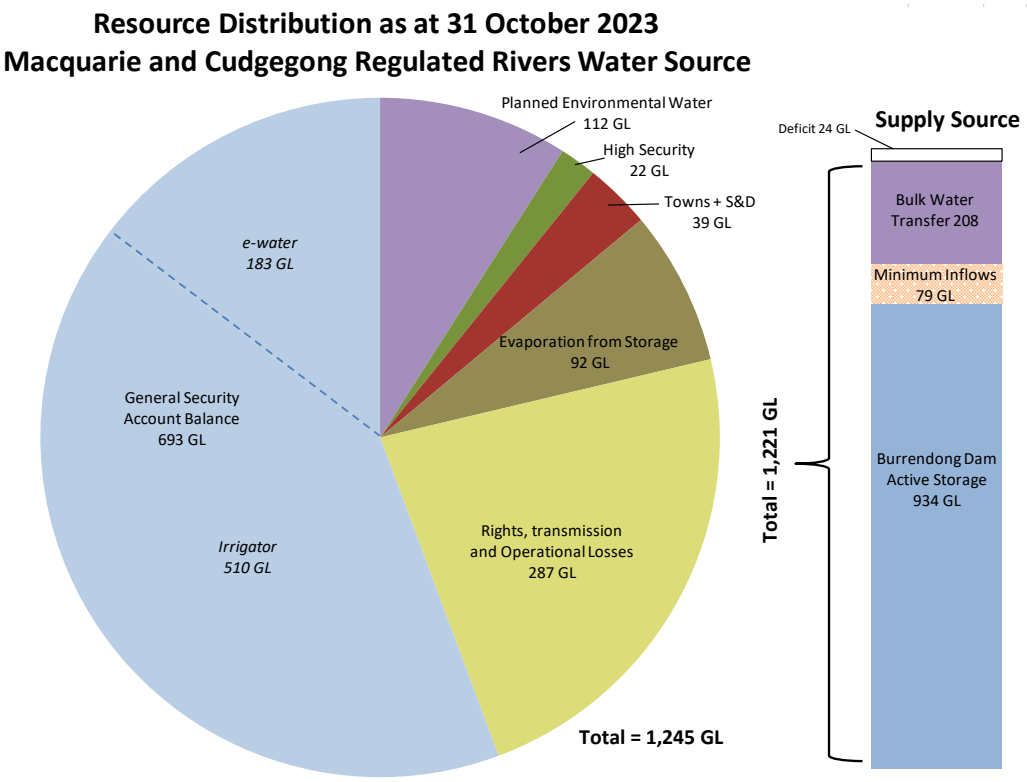
(3) This volume contains held environmental water (HEW). This is estimated to be 183 GL of GS, prior to reconciliation of usage and net trade. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Department of Planning and Environment – Environment and Heritage and the Commonwealth Environmental Water Holder (CEWH).

(4) Evaporation loss from Burrendong is based on projected storage depletions.

(5) The volume required to run the river to meet all non-licence-based demands and delivery overheads. This mostly comprises basic landholder rights, transmission and operational losses under dry conditions. The volume of second year is inclusive of delivery loss for the projected carry over volume.

(6) Required volume to ensure full utilisation of 100% allocation to these licence holders.

(7) Surplus (or deficit) of water available after accounting for all commitments. There is a small deficit which will be monitored closely.



Allocations in 2023/24 for Macquarie and Cudgegong

Table 1: Water allocation history in 2023/24 for Macquarie (in % or ML/unit share)

Date	License Category	Increment	Total 2023/24	Average Account Balance
1-Jul	Domestic and Stock	100%	100%*	100%*
1-Jul	Local Water Utility	100%	100%*	100%*
1-Jul	High Security	1.00 ML/unit share	1.00 ML/unit share*	100%*
1-Jul	Supplementary	1.00 ML/unit share	1.00 ML/unit share*	100%*
12-Jul	General Security	0.5 ML/unit share	0.5 ML/unit share	131%
12 - Jul	EWA- Macquarie	50%	50%	123%
10-Aug	General Security	0 ML/unit share	0.5 ML/unit share	132%
10-Aug	EWA- Macquarie	0%	50%	123%
12-Sep	General Security	0 ML/unit share	0.5 ML/unit share	128%
12-Sep	EWA- Macquarie	0%	50%	104%
12-Oct	General Security	0 ML/unit share	0.5 ML/unit share	124%
12-Oct	EWA- Macquarie	0%	50%	85%
10-Nov	General Security	0 ML/unit share	0.5 ML/unit share	113%
10-Nov	EWA- Macquarie	0%	50%	70%

Table 2: Water allocation history in 2023/24 for Cudgegong (in % or ML/unit share)

Date	License Category	Increment	Total 2023/24	Average Account Balance
1-Jul	Domestic and Stock	100%	100%*	100%*
1-Jul	Local Water Utility	100%	100%*	100%*
1-Jul	High Security	1.00 ML/unit share	1.00 ML/unit share*	100%*
1-Jul	Supplementary	1.00 ML/unit share	1.00 ML/unit share*	100%*
12-Jul	General Security	0.5 ML/unit share	0.5 ML/unit share	130%
12-Jul	EWA-Cudgegong	50%	50%	213%
10-Aug	General Security	0 ML/unit share	0.5 ML/unit share	129%
10-Aug	EWA-Cudgegong	0%	50%	213%
12-Sep	General Security	0 ML/unit share	0.5 ML/unit share	126%
12-Sep	EWA-Cudgegong	0%	50%	213%
12-Oct	General Security	0 ML/unit share	0.5 ML/unit share	114%
12-Oct	EWA-Cudgegong	0%	50%	213%
10-Nov	General Security	0 ML/unit share	0.5 ML/unit share	111%
10-Nov	EWA-Cudgegong	0%	50%	155%

*Maximum allowable.

Storage outlook

The storage outlook for the assessment horizon is provided below. It shows that with current allocations and commitments and an assumed repeat of historical minimum inflow sequence, together with forecast demands, the volume in Burrendong Dam will reduce to a minimum by the end of February 2025 and begin to recover in after 3 months.

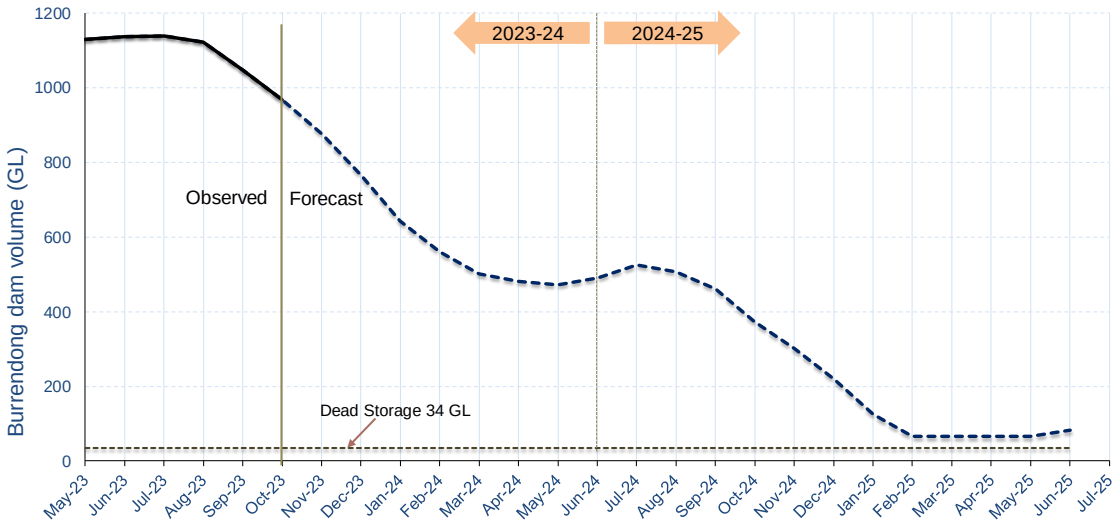


Figure: Simulated depletion of Burrendong Dam storage volume

Water allocation guide

The NSW Department of Planning and Environment - Water published a series of guides to describe the water allocation method for all major NSW regulated river systems. The guide for the Macquarie - Cudgegong regulated rivers water source is available at: water.dpie.nsw.gov.au/allocations-availability/allocations/how-water-is-allocated/resource-assessment-process

Further information

The next routine monthly water allocation statement for the Macquarie and Cudgegong Regulated Rivers Water Source will be issued on **Tuesday 12 December 2023**.

Information on available water determinations and water sharing plans is available on the Department of Planning and Environment website: water.dpie.nsw.gov.au/home

Subscribe here to receive the Department of Planning and Environment's monthly email update on water planning, management and reform in New South Wales.

You can also follow the Department on Twitter: @NSWDPIE_Water

Feedback on this work or any aspect of the Department's service can be proved using the widget at: www.dpie.nsw.gov.au/contact