11 January 2024

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 general security average account balance is now 591 gigalitres (GL), or about 96% of entitlement. Similarly, the Cudgegong water source average account balance is now about 20 GL or 106% of entitlement on average.

Inflows since the last assessment have resulted in some resource improvement; however, they were not sufficient to allow for any increase in allocations at this time. This resource assessment is conservatively based on information to 31 December 2023. Any changes in resources since then will be captured in the next routine statement in February 2024.

Current allocation

11 January 2024	Allocation Increment	Account Water Available
Macquarie GS	0%	96% (591 GL)
Cudgegong GS	0%	106% (20 GL)
Macquarie EWA	0%	59% (94 GL)
Cudgegong EWA	0%	140% (16 GL)

Dam levels (as of 10 January 2024)

- Burrendong Dam is 68% full – holding 824 GL.
- Windamere Dam is 93% full – holding 343 GL.

Key information

- On January 1, 2024, carryover evaporation reduction was applied to carryover accounts of General Security (GS), High Security (HS) and EWA on Macquarie and Cudgegong River as per Water Sharing Plan rules. For more information click here.

PUB24/4

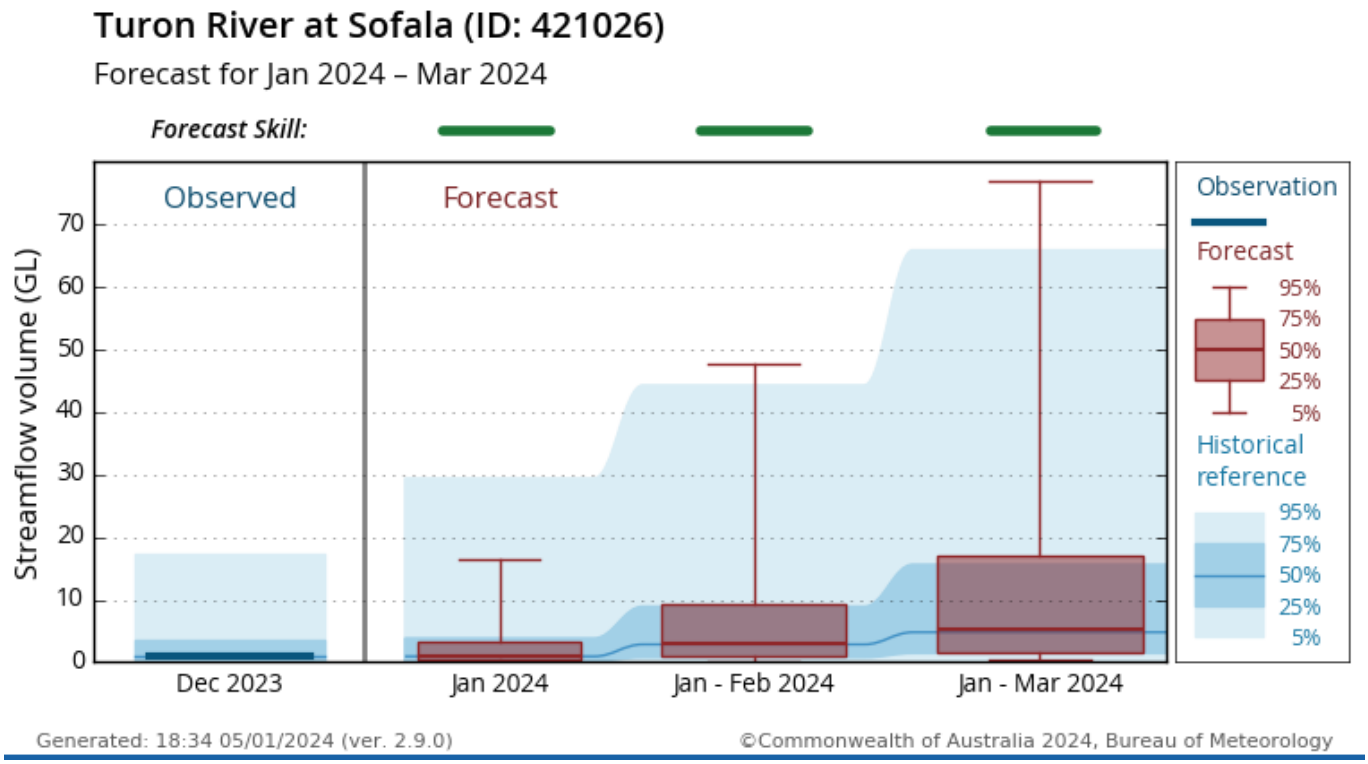
- Burrendong dam received about 15 GL of inflows during December 2023.
- A total of 103 GL of Macquarie EWA and a total of 8.4 GL of Cudgegong EWA water was delivered to the end of December 2023 this water year.
- No bulk water transfers are expected to be required before June 2024.
- A storage outlook plot for the assessment horizon is provided later in this statement.

Climate and streamflow outlooks

The Bureau of Meteorology's seasonal outlook for January to March 2024 indicates that rainfall is likely to be median to above median across the catchment. Day and overnight temperatures are likely to be warmer than median and to above median over the next three months for the 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 January to March 2024 are higher than the historical flows, indicating likely wetter than historical inflow into Burrendong Dam over this period. The graph from January to March 2024 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 (January 2024 to May 2025)		Volume (GL)
Current and Future Resources [1]		1,080
less		
This water year (01/2024 to 06/2024)		
Environmental Water Allowance	94	
Domestic, Stock, Town balance	15	
High Security balance	8	
General Security balance [2] [3]	591	
Evaporation from Burrendong [4]	37	
Rights, transmission, and operational losses [5]	104	
Storage reserve for 2024/25		
Domestic, Stock, Town, and High Security [6]	34	
Evaporation from Burrendong [4]	35	
Rights, transmission, and operational losses [5]	157	
equals		
Surplus (or deficit) [7]		5

Notes:

(1) Active Storage volume in Burrendong Dam at end of December (net of 34 GL of dead storage) plus minimum budgeted dam inflows from February 2024 to May 2025 plus the future planned 202 GL transfer available from Windamere Dam. High design inflow of January is ignored to avoid predicted deficit next month.

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

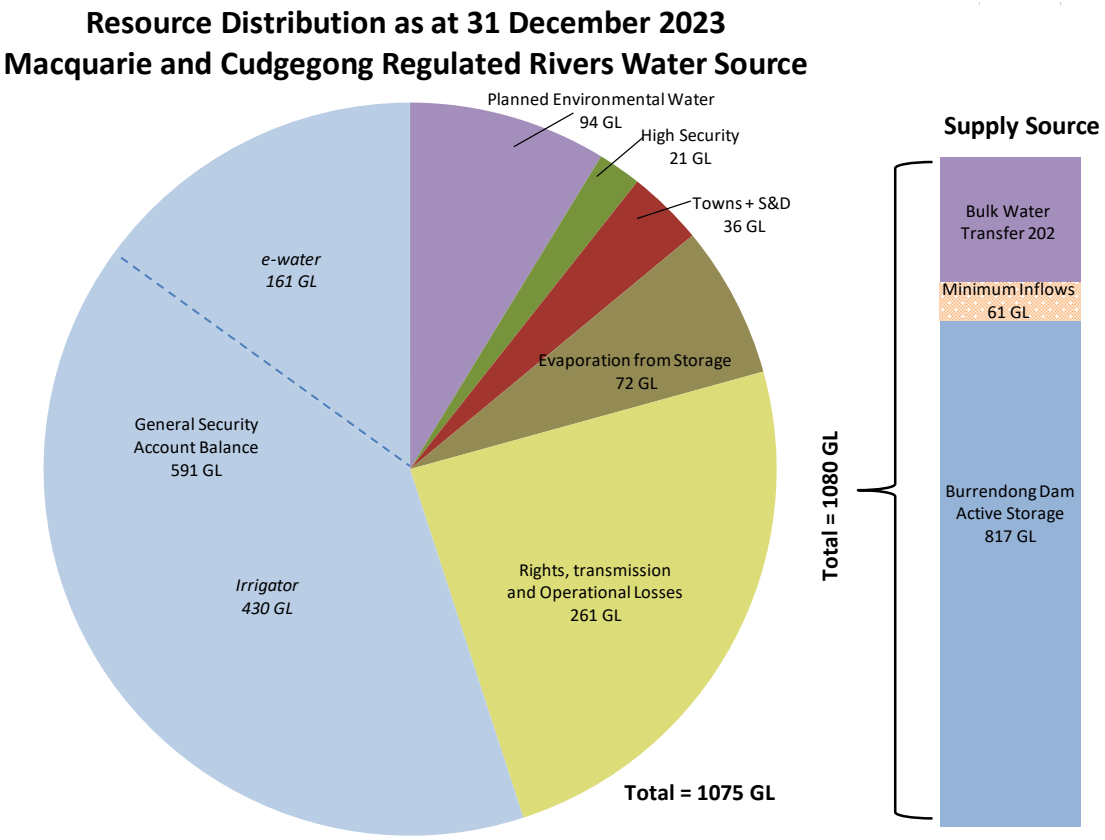
(3) This volume contains held environmental water (HEW). This is estimated to be 161 GL of GS, prior to reconciliation of usage and net trade. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Department of Planning and Environment – 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 surplus which will be rolled over to next month's assessment.



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%*

Date	License Category	Increment	Total 2023/24	Average Account Balance
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%
12-Dec	General Security	0 ML/unit share	0.5 ML/unit share	107%
12-Dec	EWA- Macquarie	0%	50%	60%
11-Jan	General Security	0 ML/unit share	0.5 ML/unit share	96%
11-Jan	EWA- Macquarie	0%	50%	59%

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%

Date	License Category	Increment	Total 2023/24	Average Account Balance
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%
12-Dec	General Security	0 ML/unit share	0.5 ML/unit share	110%
12-Dec	EWA-Cudgegong	0%	50%	143%
11-Jan	General Security	0 ML/unit share	0.5 ML/unit share	106%
11-Jan	EWA-Cudgegong	0%	50%	140%

*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 March 2025 and begin to recover in after 2 months.

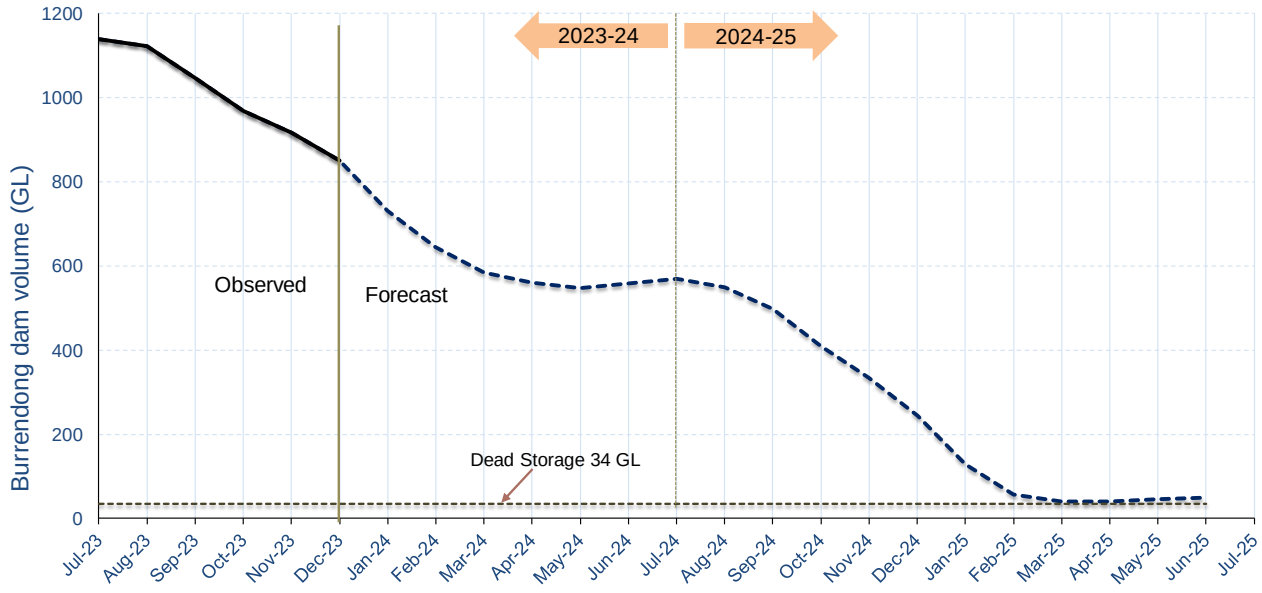


Figure: Simulated depletion of Burrendong Dam storage volume

Water allocation guide

The NSW Department of Climate Change, Energy, the Environment and Water published a series of guides to describe the water allocation methods for most 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 **Monday 12 February 2024**.

Information on available water determinations and water sharing plans is available on the department's website: www.dpie.nsw.gov.au/water

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