

19 September 2019

## Macquarie and Cudgegong valleys

### Water allocation update

Allocations for the Macquarie-Cudgegong regulated river water sources **remain unchanged**.

There was just 900 megalitres (ML) of inflow to Burrendong Dam during August 2019. Total inflow to Burrendong Dam over the 24 months since the last general security allocation in August 2017, has been about 91,000 ML. This is only 25 per cent of the previous record low inflow of about 366,000 ML for a similar period.

2019-20	High Security	General Security	Drought Stage
Cudgegong	70%	0%	 Stage 2
Macquarie	70%	0%	 Stage 4

A temporary water restriction remains in operation below Burrendong Dam in 2019-20 to limit water usage and protect critical supplies. Access to remaining water in general security carryover sub-accounts, including remaining EWA, has been restricted from 1 July 2019 until conditions improve.

Cudgegong regulated river access licences, including general security carryover, are not restricted; however, no trading of water from above Burrendong Dam to below Burrendong Dam is permitted due to the critical water shortage downstream.

These restrictions can only be eased when sufficient inflows to assure high priority needs for the 2020-21 water year are captured in storage. With dry conditions continuing, water users are advised to plan their programs accordingly and to maximise water use efficiency.

Some operational drought contingency measures are now in place to extend delivery of existing limited water supplies in the Macquarie Valley. Temporary works to raise Warren Weir are now complete and deliveries downstream have now ceased. Similarly, regulated releases into Duck Creek and Crooked Creek have also ceased.

Investigative works are being conducted to access inactive storage in Burrendong Dam. Additional drought contingency measures may be required to secure town supplies and other critical needs within the valley.

### Storage levels (as at 18 September 2019)

- Burrendong is 4.4 per cent full – falling – currently at 85,000 ML (51,000 ML active)
- Windamere is 31 per cent full – steady – currently at 116,000 ML

### Drought stage

The NSW Extreme Events Policy introduced a staged approach to managing extreme events, such as severe droughts or poor water quality events. The Macquarie regulated river water source continues to experience a critical Stage 4 drought event. Water supplies are being managed to meet high priority needs for as long as possible. Timely operational contingency measures will be introduced to protect critical water supplies.

The Cudgegong regulated water source advanced to Stage 2 on 1 July 2019, reflecting the restricted trade dealings and 70 per cent high security allocation.

Further details are available at: [www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update](http://www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update)

### Key facts

- Despite water allocations, there will be no delivery of water to some sections of the regulated Macquarie River without tributary inflows. Water users may refer to WaterNSW for specific delivery advice.
- In the absence of significant inflow, cease-to-flow conditions are likely to persist in the Macquarie River below Warren, and for Duck and Crooked Creeks.
- Trade between the Cudgegong and Macquarie valleys is currently closed due to critical drought operations.
- If conditions remain dry, a further bulk water transfer will occur in December 2019 leaving a minimum of 70 gigalitres (GL) in Windamere Dam. This is enough to secure supply for local demand in the regulated Cudgegong Valley for a number of years.
- Tributary flows downstream of Burrendong Dam will be managed adaptively to relieve current demands. Tributary flows will further be used to restore flows in regulated sections meeting critical human and environmental needs.

### Climatic outlook

The Bureau of Meteorology seasonal outlook for October 2019 to January 2020 suggests rainfall is likely to be below average across most of the country.

In the shorter term, October is showing particularly strong chances of being much drier than usual.

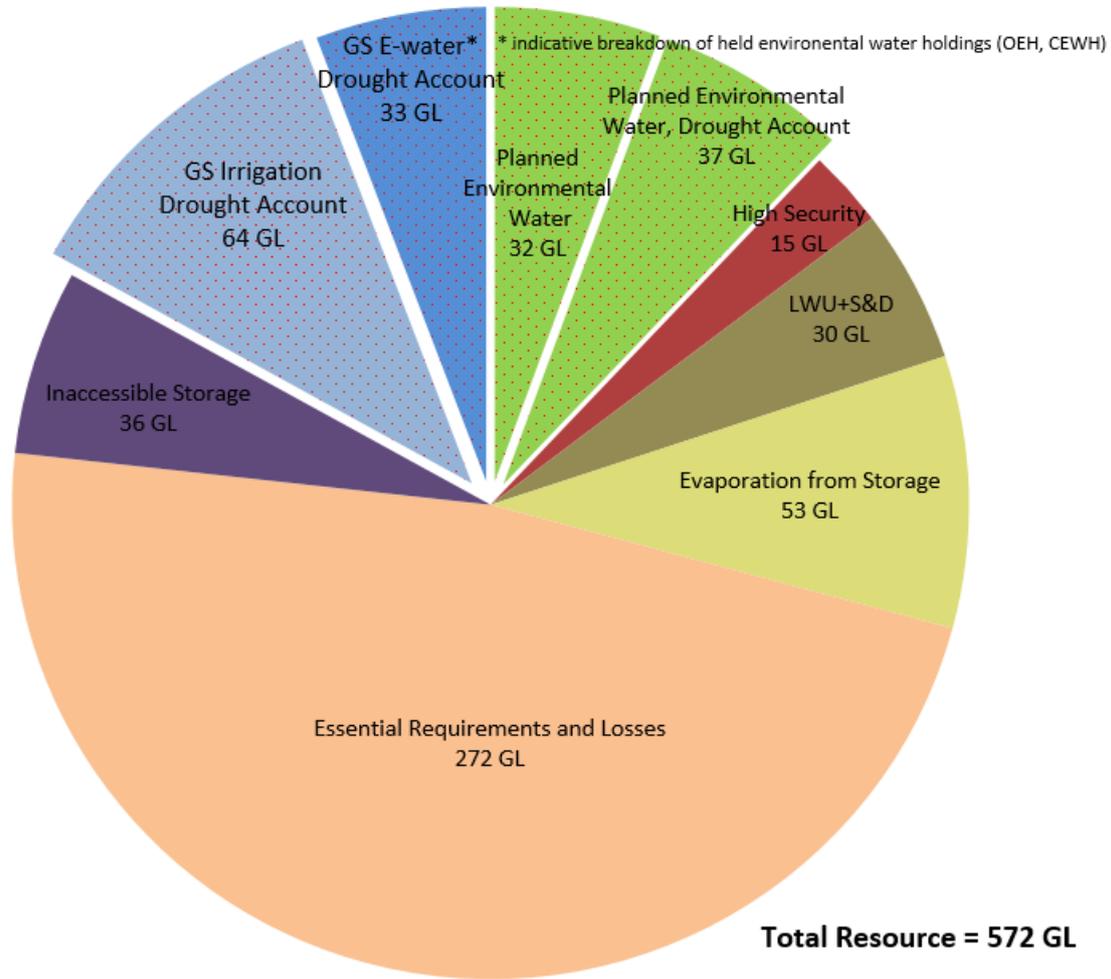
The positive Indian Ocean Dipole (IOD) remains a key climate driver of Australian climate for the coming months. This, combined with a forecast negative Southern Annual Mode (SAM) phase, is driving the warm and dry conditions forecast by the Bureau's climate model.

Further details are available at: [www.bom.gov.au/climate/outlooks/#/overview/summary](http://www.bom.gov.au/climate/outlooks/#/overview/summary)

### Next announcement

The next water allocation statement for the regulated Macquarie-Cudgegong valleys will be on **Friday 11 October 2019**.

## Resource Distribution and Drought Restrictions (September 2019 to May 2021)



### Resource Distribution (September 2019 to May 2021)

	Volume (GL)	Volume (GL)
Total Available Resource <sup>(1)</sup>		187
<i>less</i>		
Carryover remaining in accounts <sup>(2), (7)</sup>	97	
Planned Environmental Water <sup>(3)</sup>	69	
Towns, Stock, Domestic <sup>(4)</sup>	30 (80%)	
Inaccessible Storage <sup>(6)</sup>	36	
High Security <sup>(4)</sup>	15 (70%)	
General Security 2019/2020 AWD <sup>(7)</sup>	0 (0%)	
Essential Requirements (transmission, operations) <sup>(5)</sup>	272	
Evaporation from Storage	53	
<i>equals</i>		
Water available for allocation (or deficit)		(385)

### Notes:

- (1) Storage volume in Burrendong Dam plus minimum forecast dam inflows plus transfers from Windamere Dam is 187 GL. In order to deliver all remaining GS and EWA carryover allocations and current allocation to higher security licences, and to operate the river normally over the assessment horizon, 572 GL is required. This is resulting in a deficit of 385 GL before further allocations can be made.
- (2) Carryover remaining in accounts: volume remaining in carryover sub-accounts (excludes Cudgegong), discounted for evaporative losses.
- (3) Planned environmental water: water allocated to the Environmental Water Allowance (EWA) under the water sharing plan (WSP) to provide for the Macquarie Marshes and the riverine environment. Excludes 'licence-based' environmental water.
- (4) Towns, Stock, Domestic and High Security: reserves required to meet current allocation to these licence categories over the assessment horizon. This represents total entitlement below Burrendong Dam.
- (5) Essential Requirements: best estimate of the volume required to run the river under dry conditions over the next 21 months to meet all demands. This includes transmission losses and operational loss. It is conservatively assumed that forecast inflows correspond to dry conditions. This estimate is regularly refined as the year unfolds.
- (6) Inaccessible storage: Dead storage of 34 GL plus 2 GL to ensure valve operations at very low storage levels.
- (7) Held environmental water (HEW): as a trial, we are reporting held environmental water administered by the environmental water holders, with the associated portions of general security allocation also identified in the above pie chart. This reporting of held environmental water is indicative only, prior to reconciliation of usage and net trade, and is estimated to be 33 GL of GS and 0 GL of HS. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW DPIE Environment, Energy and Science (EES) and the Commonwealth Environmental Water Holder (CEWH). Details on environmental holdings can be found on individual agency websites. Delivery of this water is currently unavailable until conditions improve.

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