

15 August 2018

## Lachlan Valley

### Water allocation update and outlook

The Lachlan regulated river general security allocation **remains unchanged at zero per cent of entitlement.**

Currently it is estimated that a combined dam and tributary inflow volume of over 133 gegalitres (GL) will be required in August before a general security allocation can be made in September. Dry conditions have produced inflows of just 1.7 GL so far in August 2018.

Total Wyangala Dam inflows from 1 January 2018 to date are about 23 GL. A total of 250 GL of inflow is required in a calendar year before any translucent environmental flows are released from Wyangala Dam.

General security water users are reminded that the Annual Use Limit that will apply in the 2018/19 water year will be a volume equivalent to 100 per cent of entitlement, plus any adjustments up or down for trade.

As Lake Brewster is effectively empty, irrigation and environmental demand below Brewster Weir this spring and summer will be delivered from Wyangala Dam. In order for the water order lead time to remain linked to travel time from Lake Brewster, WaterNSW will contact all water users below Brewster Weir, including those in regulated Willandra Creek, to compile details of their forecast monthly demand.

	High Security	General Security	Average Carryover
Lachlan	100%	0%	62%

### Storage levels (as at 13 August 2018)

- Wyangala Dam is 60 per cent full – falling – currently at 731 GL.
- Lake Cargelligo is 73 per cent full – falling – currently at 28.5 GL.
- Lake Brewster is now effectively empty.

### Climatic outlook

The Bureau of Meteorology outlook for August to October indicates likely dry conditions and temperatures most likely to be above average for the region.

The Bureau's climate models show that the El Nino-Southern Oscillation and Indian Ocean Dipole indicators are likely to remain neutral over the forecast period, but having a greater than usual chance of an El Nino event forming later in the year.

### Next announcement

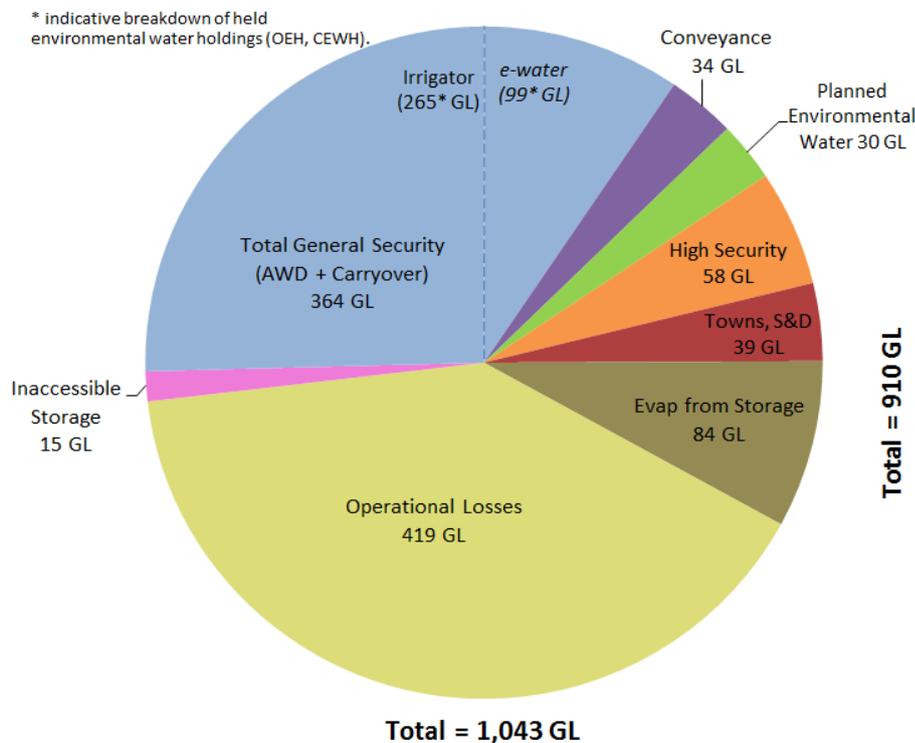
The next water allocation statement for the regulated Lachlan Valley will be on **Friday 14 September 2018.**

## Lachlan Resource Assessment Data Sheet

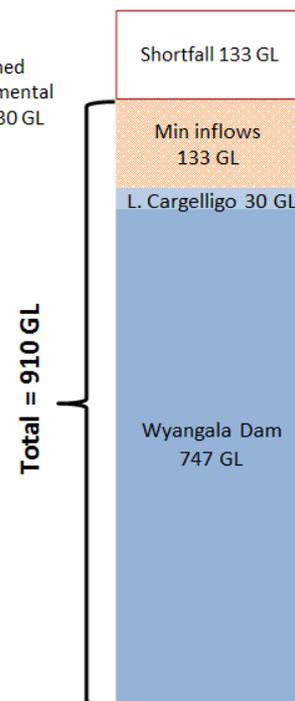
Resource Distribution (August 2018 to May 2020)	
	Volume (GL)
Available Resource <sup>(1)</sup>	910
<b>less</b>	
General Security 2018/2019 AWD <sup>(7),(8)</sup>	0 (0%)
Carryover remaining in accounts <sup>(2),(8)</sup>	364
Conveyance	34
Planned Environmental Water <sup>(3)</sup>	30
High Security <sup>(4)</sup>	58 (100%)
Towns, Stock, Domestic <sup>(4)</sup>	39 (100%)
Evaporation from storage <sup>(5)</sup>	84
Operational Losses (transmission, operations) <sup>(6)</sup>	419
Inaccessible storage	15

\*See notes below.

### Resource Distribution: August 2018 to May 2020 Lachlan Valley



### Supply Source<sup>(9)</sup>



## Notes:

- (1) Total available resource: End of July storage volume in Wyangala Dam, Lake Cargelligo and Lake Brewster, plus minimum forecast inflows from now to May 2020.
- (2) Carryover remaining in general security accounts, including held environmental water.
- (3) Planned environmental water: water allocated to the Water Quality Allowance and/or the Environmental Contingency Allowances under the water sharing plan. Excludes 'licence-based' environmental water.
- (4) Towns, Stock, Domestic and High Security: reserves are set aside to meet 100% of these high priority entitlements to 31 May 2020. Balances in high security accounts include water traded in from general security licences.
- (5) It is assessed that the lakes are likely to be drawn down slowly in the current water year, increasing storage evaporation.
- (6) Operational Losses: best estimate of the volume required to run the river under dry conditions through May 2020 to meet all demands. This mostly comprises natural transmission losses as water soaks into the river bed sands. This volume includes S&D replenishment deliveries in autumn 2019 and 2020. It is assumed that current tributary inflows will return to dry conditions from now onward. This loss allowance is updated across the year.
- (7) Volume represents the total cumulative AWD made to GS licences in the current water year.
- (8) Held environmental water (HEW): as a trial, reporting of held environmental water administered by environmental water holders is being reported here, with the associated portion of general security allocation also identified in the above pie chart. This reporting is indicative only, prior to reconciliation of usage and net trade, and is estimated to be 99 GL of GS, and 3 GL of HS. These reported entitlements are managed by various environmental holder groups, including the NSW Office of Environment and Heritage (OEH) and the Commonwealth Environmental Water Holder (CEWH). Details on environmental holdings can be found on individual agency websites.
- (9) The supply source of total available water, explained in Note (1) above, is provided. Note that Lake Brewster is empty now. It also indicates the current shortfall required before a further AWD can be made.

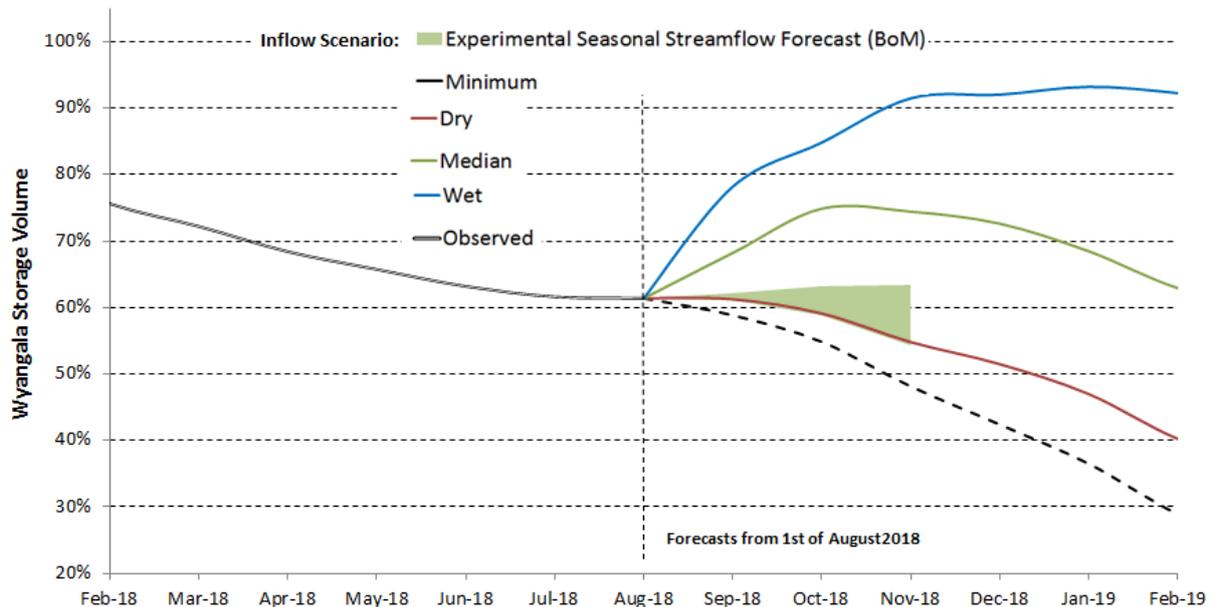
## Chances of improvement

General security allocations, based on repetition of historical inflow scenarios, are as follows:

Historical Inflow Scenario	Cumulative General Security AWD	
	For 2018/19 by 31 Jan 2019	For 2018/19 by 30 Jun 2019
Dry (exceeded 4 times in 5 years)	0% <sup>+</sup>	0% <sup>+</sup>
Average (exceeded once every 2 years)	19% <sup>+</sup>	48% <sup>+</sup>
Wet (exceeded once in 5 years)	65% <sup>+</sup>	103% <sup>+</sup>

<sup>+</sup> Add remaining balances on 1 July 2018 carried forward to these forecasted AWD values.

## Forecast Storage Volume



Forecast storage volumes, shown in the solid lines above, use historical daily inflow data over the full period of record (1898 to present). They represent the chances of specific storage levels being exceeded assuming that past climatic and hydrological sequences are indicative of likely future conditions.

- Minimum Minimum forecast inflows represent the **lowest on record to 2004**
- Dry Dry inflows represent an **80 percent chance** of being exceeded
- Median Median inflows represent a **50 percent chance** of being exceeded
- Wet Wet inflows represent a **20 percent chance** of being exceeded
- Experimental Seasonal Streamflow Forecast (BoM)

The Bureau of Meteorology (BoM) seasonal forecast inflows use relationships between climate indicators (particularly global ocean and climate conditions), past catchment conditions and historical rainfall and streamflow to **forecast the total inflow volume for the next three month period**. The shaded area represents the range of likely storage levels (using the 20<sup>th</sup> and 80<sup>th</sup> percentile bounds) resulting from the BoM forecast inflow volume. For more detail, refer to the BoM website: [www.bom.gov.au/water/ssf](http://www.bom.gov.au/water/ssf)

**The Bureau’s seasonal streamflow forecasts are not used directly in the resource assessment process.**

*Please note: The Bureau’s seasonal streamflow forecast inflows to Wyangala Dam are still experimental at this stage and are not published on the Bureau’s website. The information provided here by the Department of Industry - Water is only intended to provide additional information about likely storage levels over the next three months.*