

15 August 2019

## Lachlan Valley

### Water allocation update

There is no change to allocations in the Lachlan regulated river water source. Inflow conditions remain well short of enabling further general security allocation, with over 280 gigalitres (GL) of system inflow required in August. The planning horizon for the Lachlan resource assessment runs through to May 2021, some 22 months. It provides security to high priority needs before further general security allocation.

Inflows to Wyangala Dam since the last AWD in August 2017 for the 24 month period total just 248.5 GL. This represents only 75% of the historic lowest 24 month inflow.

As Lake Brewster remains effectively empty, irrigation and environmental demand below Brewster Weir this water year will be delivered from Wyangala Dam. In ordering water, users must allow for the extra delivery travel times, particularly those in the regulated Lachlan River at Hillston and downstream, and those in the regulated Willandra Creek.

General security water users are advised that the Annual Use Limit for the 2019-20 water year is a volume equivalent to 100 per cent of entitlement. This is the maximum amount of water that can be used in the water year, plus any adjustments up or down for trade.

A Temporary Water Restriction under Section 324 of the Water Management Act 2000 is currently in place, allowing access from 1 July 2019 to only 57% of carryover in accounts on 30 June 2019 held by general security access licences. The restricted volume, being 43% of carryover, is inaccessible for either take or trade until conditions improve. The restriction aims to prioritise remaining water for critical human and high priority needs. This approach is consistent with the NSW Extreme Events Policy.

An indicative outlook on water availability and carryover deliverability for 2019-20 has been provided further below.

2019-20	High Security	General Security	Drought Stage
Lachlan	87%	0%	 Stage 3

### Storage levels (as at 14 August 2019)

- Wyangala Dam is 25 per cent full – falling – currently at about 307 GL.
- Lake Cargelligo is 55 per cent full – falling – currently at about 23 GL.
- Lake Brewster is effectively empty.

### 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 Lachlan regulated river

water source is currently at Stage 3 drought criticality, reflecting the reduced water availability in 2019-20 described above. Conditions will be closely monitored going forward with Stage 4 and tighter restrictions potentially required should extreme low inflows persist.

Further information on the NSW Extreme Events Policy and related drought stages can be found at:

<https://www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update>

## Climatic outlook

The Bureau of Meteorology seasonal outlook for September to November suggests a drier than average three months is likely for most of the catchment. Daytime temperatures are also likely to be warmer than average.

Climate influences include a positive Indian Ocean Dipole, and an ENSO-neutral tropical Pacific Ocean.

For further details: [www.bom.gov.au/climate/outlooks/#/rainfall/summary](http://www.bom.gov.au/climate/outlooks/#/rainfall/summary)

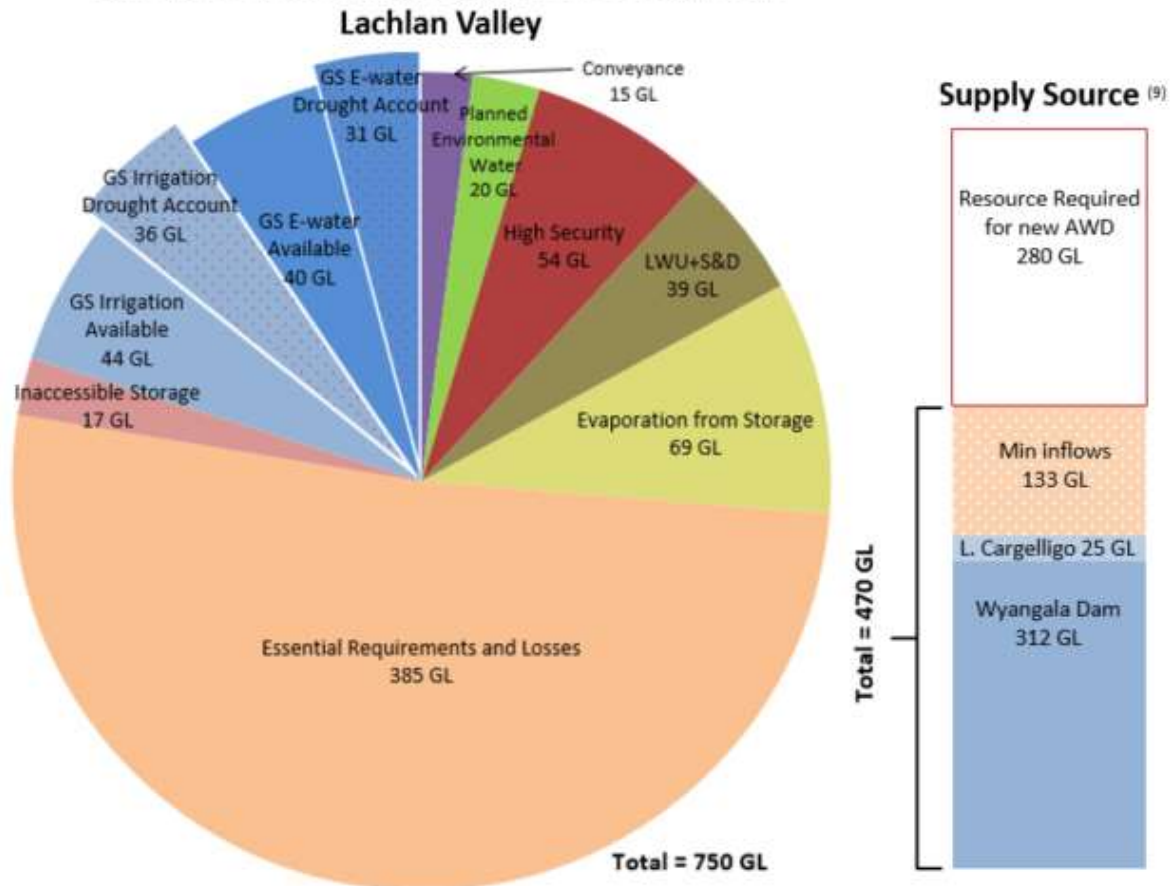
## Next announcements

The next water allocation statement for the Lachlan regulated river water source will be issued on **Friday 13 September 2019**.

## Lachlan Resource Assessment Data Sheet

Resource Distribution (August 2019 to May 2021)	
	Volume (GL)
Available Resource <sup>(1)</sup>	470
<b>less</b>	
General Security 2019/2020 AWD <sup>(7),(8)</sup>	0 (0%)
Carryover remaining in accounts <sup>(2),(8)</sup>	151
Conveyance	15
Planned Environmental Water <sup>(3)</sup>	20
High Security <sup>(4)</sup>	54 (100%)
Towns, Stock, Domestic <sup>(4)</sup>	39 (100%)
Evaporation from storage <sup>(5)</sup>	69
Essential Requirements and Losses (transmission, operations) <sup>(6)</sup>	385
Inaccessible storage	17

## Resource Distribution: August 2019 to May 2021



### Notes:

- (1) Total available resource: End of July 2019 storage volume in Wyangala Dam, Lake Cargelligo and Lake Brewster, plus minimum forecast inflows from now to May 2021.
- (2) Carryover remaining in general security accounts, including held environmental water (only 57% of this volume is available for delivery at present)
- (3) Planned environmental water: water allocated to the Water Quality Allowance and/or the Environmental Contingency Allowances (EWA) under the water sharing plan. Excludes 'licence-based' environmental water. EWA allocation for 2019-20 is zero at this time.
- (4) Towns, Stock, Domestic and High Security: reserves are set aside to meet 100% of these high priority entitlements to 31 May 2021. 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 over the assessment period, increasing storage evaporation.
- (6) Essential Requirements and Losses: best estimate of the volume required to run the river under dry conditions through to May 2021 to meet all demands. This mostly comprises natural transmission losses as water soaks into river bed sands. The volume includes any S&D replenishment deliveries required in autumn 2020 and 2021. It is assumed that any current tributary inflows will return to dry conditions going forward. The loss allowance is updated regularly.
- (7) Volume represents the total cumulative AWD made to GS licences in the current water year.
- (8) Held environmental water (HEW): 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 71GL of GS, and 2GL of HS. These reported entitlements are managed by environmental holder groups, including the NSW Office of Environment and Heritage (OEH) and the Commonwealth Environmental Water Holder (CEWH). Details on e-water 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.

## Water availability outlook for 2019-20

Forecast conditions are indicative only and not guaranteed. Forecasts should be used with caution and can change, particularly when the projection is many months ahead.

- A Temporary Water Restriction under Section 324 of the Water Management Act 2000 is currently in place, allowing access to only 57% of 1 July 2019 general security carryover volume. This restriction will remain in place until conditions improve.
- High Security licences received an allocation of 87% on 1 July 2019. This allocation can be raised when inflows better than assumed minimums are observed in storage.
- The resource assessment process is based on the worst period of low inflows prior to the water sharing plan commencing in 2004. This excludes the Millennium drought, which contained the lowest Lachlan inflows on record. Planning for the second worst drought slightly increases the risk that these allocations are too high and that future water restrictions may be needed.
- The system continues to experience very low inflows, with only 75% of above pre-2004 minimums observed in storage since the last general security allocation in August 2017. The planning horizon for historical minimum inflows when this allocation was made assumes a recovery in the system will occur this winter, but this is statistically based, not guaranteed, and highly unlikely given recent and forecast climate conditions.
- Conditions will be closely monitored and increased restrictions may become necessary next water year should winter/spring rains fail and extreme low inflows persist. Significant inflow is now required to build reserves for critical water delivery in the 2020-21 water year.
- Although allocations are based on the second worst drought historically in the Lachlan, contingency planning and managing for drought is undertaken on more severe drought scenarios.
- WaterNSW is currently in discussions with the stakeholders in the mid-Lachlan creeks, Willandra Creek and in the lower Lachlan with regards to implementing measures to save water. Flows in the regulated Willandra Creek will be maintained until the end of November 2019. Flows may then cease from 1 December to the end of March 2020 in order to save water.
- If restrictions are in place and subsequent inflows above planning minimums occur, the improvement in resource will be shared to increase the availability of carryover and high security allocation, and to ensure essential supplies can be met in 2020-21. A relaxation of restrictions has the highest probability of occurring during the higher winter inflow period, however total inflow during June and July 2019 was just 6,000 megalitres.
- A table has been provided below with estimated inflows required this late-winter / early spring period before any further carryover water is able to be released in 2019-20. The aim is to assist water users with their management decisions including planning for the current water year.

# Water Allocation Statement

As part of drought contingency measures, preliminary estimates of inflows required to improve carryover deliverability and high security allocation are provided in the table below.

## Inflows needed to improve deliverability of carryover

2019-20 inflow period	Estimated cumulative inflow required prior to easing of restrictions (ML)
By end of August	100,000
By end of September	143,000
By end of October	161,000

Note 1: Estimated water held in general security accounts on 1 July 2019 was 156,000 ML.

Note 2: Water delivery operations in 2019-20 provided under drought contingency planning (Stage 3).

The table above summarises the drought planning scenarios detailed below. Scenario estimates are based on applying priorities under *Water Management Act 2000*, leading to lower priority licences being impacted to the same extent or greater than higher priority licences. Please note that all values are estimates and may change rapidly as the next water year progresses.

2019-20 Inflows by end of Month	Assessment based on drought inflow restarting in	Combined drought Inflows (GL)	Deficit in drought Inflows (GL)	Additional combined inflows required prior to easing GS restriction and increase HS allocation (GL)	Predicted dam level end May 2020	Predicted dam level end May 2021
July - August	September	133.6	89.5	100	6.8%	0.10%
July - September	October	91.7	131.4	143	9.4%	0.04%
July - October	November	75	148.1	161	9.5%	0.11%

Note 1: Estimated water held in general security accounts on 1 July 2019 was 156,000 ML.

Note 2: Water delivery operations in 2019-20 provided under drought contingency planning (Stage 3).

Note 3: Minimum storage level of 3% is targeted at end 2019-20 to maintain critical supplies in 2020-21.