

19 June 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 200 gigalitres (GL) of system inflow required in June. The planning horizon for the Lachlan resource assessment runs through to May 2021, some 24 months. It provides security to priority needs before further general security allocation.

As Lake Brewster remains effectively empty, irrigation and environmental demand below Brewster Weir next 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 Willandra Creek.

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

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

2018-19	High Security	General Security	Drought Stage
Lachlan	100%	0%	 Stage 3

Storage levels (as at 17 June 2019)

- Wyangala Dam is 27 per cent full – falling – currently at about 332 GL.
- Lake Cargelligo is 52 per cent full – steady – currently at about 22 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 has escalated to Stage 3 drought criticality in anticipation of the reduced water availability in the indicative outlook for 2019-20 provided below. 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 July to September 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 likely positive Indian Ocean Dipole, a weakening of El Niño-like patterns in the tropical Pacific, and the tendency for higher pressures over southern and eastern Australia, keeping potential rain-bearing cold fronts further south than usual.

For further details: www.bom.gov.au/climate/outlooks/#/rainfall/summary

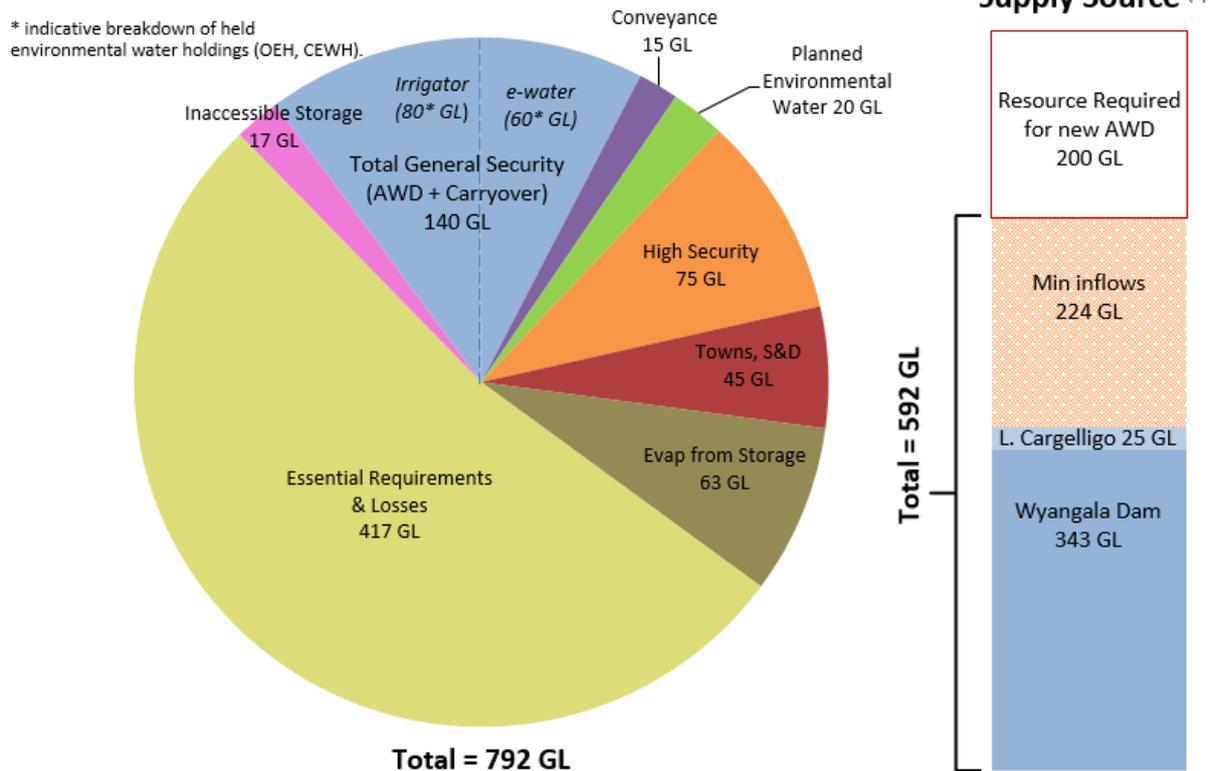
Next announcements

A brief water allocation statement for the Lachlan regulated river water source will be issued on 1 July but the next comprehensive statement will be on **Wednesday 14 August 2019**.

Lachlan Resource Assessment Data Sheet

Resource Distribution (June 2019 to May 2021)	
	Volume (GL)
Available Resource ⁽¹⁾	592
less	
General Security 2018/2019 AWD ^{(7),(8)}	0 (0%)
Carryover remaining in accounts ^{(2),(8)}	140
Conveyance	15
Planned Environmental Water ⁽³⁾	20
High Security ⁽⁴⁾	75 (100%)
Towns, Stock, Domestic ⁽⁴⁾	45 (100%)
Evaporation from storage ⁽⁵⁾	63
Essential Requirements and Losses (transmission, operations) ⁽⁶⁾	417
Inaccessible storage	17

Resource Distribution: June 2019 to May 2021 Lachlan Valley



Notes:

- (1) Total available resource: End of May 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.
- (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 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 60GL of GS, and 17GL 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.

- Final estimates of remaining general security account water for this water year indicate that only 57% of this volume can be delivered in 2019/20 without jeopardising essential requirements for 2020/21 under minimum inflow conditions.
- High Security entitlement will likely receive an allocation of 87% on 1 July 2019. This allocation can be raised with inflows better than assumed minimums into 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, only slightly above pre-2004 minimums 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 and not guaranteed.
- Conditions will be closely monitored and increased restrictions may become necessary should winter/spring rains fail and extreme low inflows persist to build reserves for future critical water delivery
- 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.
- 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.
- A table has been provided below with estimated inflows required this winter 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 upcoming 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)
June-July	35,000
June-August	100,000
June-September	145,000

Note 1: Estimated water held in general security accounts on 1 July 2019 is 160,000 ML.

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

Note 3: Conveyance licence allocation applied proportionately to accessible GS carryover.

Note 4: This table assumes that Wyangala Dam is above 26% on 1 July 2019 and, based on historical minimum inflows, at least 57% of GS carryover water is delivered in 2019-20.

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 June 2019	Predicted dam level end May 2020	Predicted dam level end May 2021
Jun 2019	July	223.1			26.3%	0.6%	0.02%
July 2019	August	212.5	10.6	35	26.3%	3%	1.6%
August	September	133.6	89.5	100	26.3%	7.2%	0.10%
September	October	91.7	131.4	145	26.3%	9.9%	0.04%

Note 1: Estimated water held in general security accounts on 1 July 2019 is 160,000 ML.

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

Note 3: Conveyance licence allocation applied proportionately to accessible GS carryover.

Note 4: This table assumes that Wyangala Dam is above 26% on 1 July 2019 and, based on historical minimum inflows, at least 57% of GS carryover water is delivered in 2019-20.

Note 5: Minimum storage level of 3% is targeted at end 2019-20 to maintain supplies in 2020-21