# Water Allocation Statement

14 May 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 181 gigalitres (GL) of system inflow required in May.

The planning horizon for the Lachlan resource assessment runs through to May 2021, some 25 months. It provides security to priority needs before further general security allocation. Despite the lack of allocation this year, valley-wide general security water availability through remaining carryover is currently 147 GL, or about 25 per cent of entitlement on average.

As Lake Brewster is effectively empty, irrigation and environmental demand below Brewster Weir this water year is being 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 for 2019-20 has been provided further below.

| 2018-19 | High Security | General Security | Drought Stage |
|---|---|---|---|
| Lachlan | 100% | 0% | Stage 2 |

**Storage levels (as at 14 May 2019)**

- Wyangala Dam is 30 per cent full – falling – currently at about 369 GL.
- Lake Cargelligo is 75 per cent full – falling – currently at about 29 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 now advanced to Stage 2. There are no constraints expected to the deliverability of account water during the current water year; however, drought contingency planning has commenced and risks to full deliverability in 2019-20 have been identified.

The valley could quickly move through to Stage 3 at the commencement of the next water year if winter rains again fail. See below for more details on the indicative outlook for 2019-20 water availability. This assessment assumes drought Stage 3 operations from 1

July 2019, with stage 4 potentially required in the 2020-21 water year, should minimal inflow conditions persist.

Further information on the NSW Extreme Events Policy and related drought stages can be found at:
**www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update**

### Climatic outlook

The Bureau of Meteorology seasonal outlook suggests dry conditions in May; however, the three month period for May to July indicates an even chance of median rainfall conditions. Temperatures are likely to be above average.

As of 30 April 2019, the Bureau indicates that main climate drivers remain neutral. However, modelling suggests there is a chance that El Niño will develop in the coming months, with the Bureau's El Niño-Southern Oscillation (ENSO) Outlook rising to El Niño ALERT level. If El Niño does develop, it would increase the chances of drier conditions in the south and eastern Australia.

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

### Next announcements

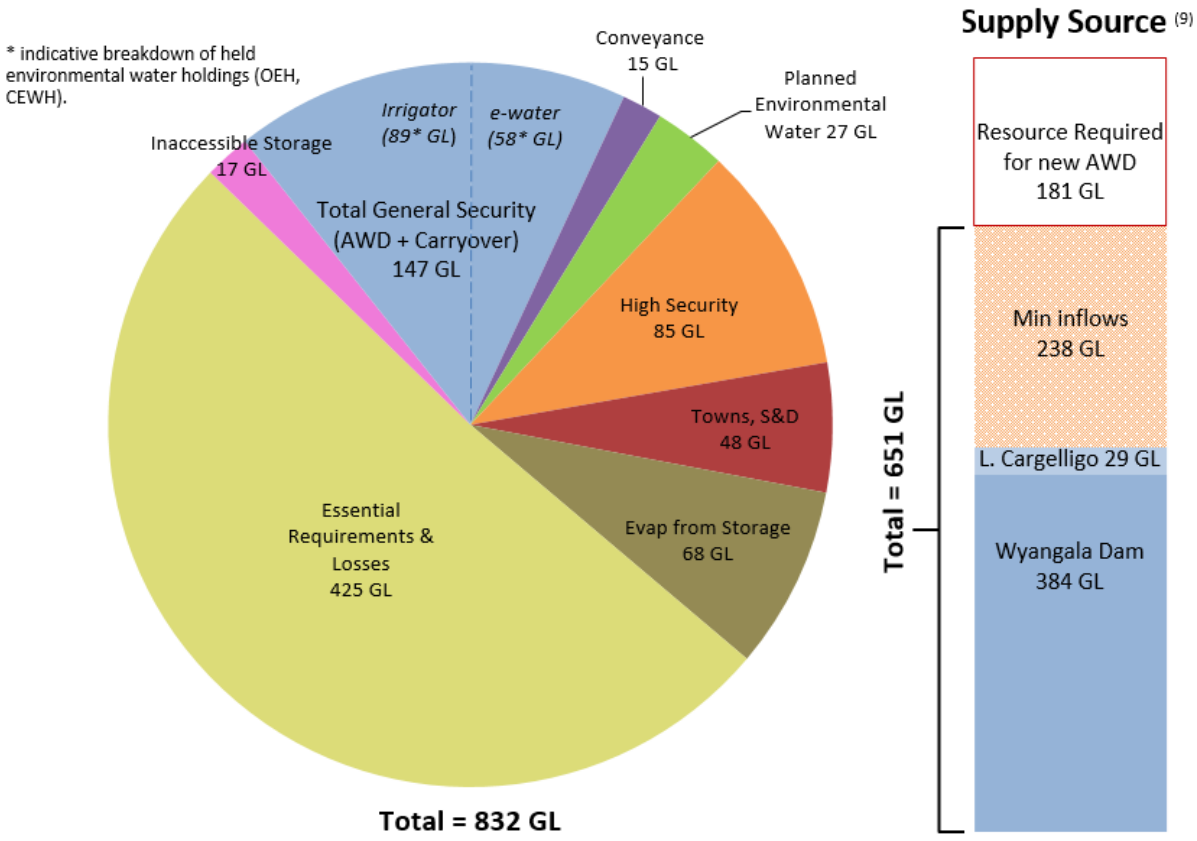
The next water allocation statement for the Lachlan regulated river water source will be on **Monday 17 June 2019**.

### Lachlan Resource Assessment Data Sheet

| **Resource Distribution (May 2019 to May 2021)** | |
|---|---|
| | Volume (GL) |
| Available Resource[1] | 651 |
| **less** | |
| General Security 2018/2019 AWD [7],[8] | 0 (0%) |
| Carryover remaining in accounts [2],[8] | 147 |
| Conveyance | 15 |
| Planned Environmental Water [3] | 27 |
| High Security [4] | 85 (100%) |
| Towns, Stock, Domestic [4] | 48 (100%) |
| Evaporation from storage [5] | 68 |
| Essential Requirements and Losses (transmission, operations) [6] | 425 |
| Inaccessible storage | 17 |

***See notes below.***

## Resource Distribution: May 2019 to May 2021
## Lachlan Valley




### Notes:

(1) Total available resource: End of April 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 2019, 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 58GL of GS, and 19GL 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 made.

# Water Allocation Statement

**Water availability outlook for 2019-20**

- The final water allocation statement for this water year will be in June 2019 and provide estimates of carryover deliverability in 2019-20. The aim is to assist water users with their end of year water management decisions and upcoming water year planning.
- 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.
- 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. Therefore, there is an inherent risk in adopting the second worst drought for water allocations.
- 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 assumes a recovery in the system will occur this winter, but this is statistically based and not necessarily reality – not guaranteed.
- If such a winter recovery does not eventuate, minimum inflows relied upon to underpin existing general security water in accounts will have been insufficient, meaning restrictions will be required in 2019-20 (drought Stage 3).
- Although allocations are based on the second worst drought historically in the Lachlan, contingency planning and managing for drought is done on the worst case scenario.
- As part of drought contingency measures, preliminary estimates of potential carryover deliverability under various inflow scenarios are provided in the table below, including potential reductions to opening high security allocation.
- Scenario estimates are based on applying priorities under the *Water Management Act 2000*, leading to lower priority licences being impacted to the same extent or greater than higher priority licences.
- Should restrictions eventuate on 1 July, and subsequent inflows above planning minimums then occur, improvements could be applied to ensure essential supplies can be met for 2020-21, and to progressively reduce the level of restrictions. Such relaxation of restrictions has the highest probability of occurring during the higher winter inflow period, as after this time, future reserves for 2020-21 operations could become critical.
- Conditions are being closely monitored and information will be regularly updated.

### Estimated deliverability of carryover under various inflow scenarios

| **2019-20 Delivery of GS water (ML)** | Delivery as % of water held in GS accounts on 1/07/19 | Combined inflows required by 1/07/19 (ML) | Chance of receiving these inflows by 30 June 2019 | Chance of receiving these inflows by 31 October 2019 | Estimated Wyangala Dam % capacity on 1/07/19 | Potential AWD for HS on 1/07/19 | Potential AWD for LWU and S&D on 1/07/19 |
|---|---|---|---|---|---|---|---|
| 97,000 | 57% | 1,000 (historical minimum) | 99% | 99% | 28% | 87% | 100% |
| 120,000 | 70% | 35,000 | > 50% | > 95% | 30% | 91% | 100% |
| 170,000 | 100% | 95,000 | > 35% | > 80% | 35% | 100% | 100% |

Note 1: Estimated water held in general security accounts on 1 July 2019 of about 170,000 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 indicates that, based on historical minimum inflows, at least 57% of GS carryover water can be delivered in 2019-20 and there is at least an 80% chance that all carryover will be deliverable by end October.

### Chances of improvement

Potential general security allocations in 2019-20, based on a repeat of historical inflows, are provided in the table below as estimated chances of improvement.

These are indicative improvements only and are not guaranteed allocations. Estimates may change based on weather variability, water management decisions and other events. This means water users should use this information with caution and at their own risk, as it projects many months ahead.

### Estimated chances of improvement

| **Historical Inflow Scenario** | | Cumulative General Security AWD* | |
|---|---|---|---|
| | | For 2019-20 by 31 Oct 2019 | For 2019-20 by 31 Jan 2020 |
| Dry | (exceeded 4 times in 5 years) | 0%^ | 0%^ |
| Average | (exceeded once every 2 years) | 9%^ | 13%^ |
| Wet | (exceeded once in 5 years) | 74%^ | 85%^ |

* Estimated values indicative only, not guaranteed and subject to change based on actual events unfolding.
^ Add remaining balances on 1 July 2019 carried forward to these forecast AWD values, subject to any account restrictions (Section 324 Orders).

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