

16 April 2020

Lachlan Regulated River Water Source

Water allocation update

There is **no change to allocations** in the Lachlan Regulated River Water Source.

The total inflow into Wyangala Dam since 1 March has been around 12.2 gigalitres (GL), with around 9.5 GL of that inflow recorded from 80 mm of rainfall in the last two weeks. The welcome rainfall across the catchment has allowed water orders to be delivered using tributary inflows, reducing the need for storage release, including in the Belubula River.

An inflow deficit of 345 GL has accrued in the Lachlan river system, which must be overcome before water is available for new general security allocations. Tight restrictions remain in place with the current focus on ensuring that there is at least enough water to meet critical needs in 2020-21. With the recent small resource improvement, remaining unrestricted water in high security and general security accounts can be delivered in the remaining months of this water year.

The planning horizon for the Lachlan resource assessment runs through May 2022, some 26 months. Given the current resource deficit, any further inflows received are required to build security for the highest priority water needs before easing water restrictions and allocating further. The department is investigating and implementing options to ensure all remaining supplies are prioritised and used efficiently and effectively in case drought conditions persist into 2020-21.

Preliminary water availability outlook for the 2020-21 water year

The system continues to experience extreme drought conditions, with further deliverability constraints possibly emerging next water year.

Under a zero inflow scenario, and delivering only critical human needs, Wyangala Dam is estimated to run dry in February 2021.

Under a repeat of drought-of-record inflows, and drought contingency operations like those employed during the Millennium drought, it is aimed to provide full allocation to towns, domestic and stock entitlements on 1 July 2020, and provide an allocation of around 70% to high security licence holders. There would be no new allocation to general security licences.

Under a repeat of drought-of-record inflows it is not possible to guarantee the delivery of general security water from storage. However, some opportunistic delivery may be possible using downstream tributary inflows until the end of August 2020. If water availability deteriorates significantly after 1 July, tighter water restrictions will be considered.

The exact nature of river operations next water year will be highly dependent on inflows captured over the autumn and winter months. Further information on the volume of inflows required to ease current restrictions is provided at the end of this statement.

2019-20	High Security	General Security	Drought Stage
Lachlan Regulated River Water Source	87%	0%	 Stage 3

Storage levels (as at 15 April 2020)

- Wyangala Dam is about 12.9 per cent full – slight rise – currently at about 158 GL.
- Lake Cargelligo is about 93 per cent full – steady – currently at about 34 GL.
- Lake Brewster is effectively empty.

Drought stage

Under the NSW Extreme Events Policy, the Lachlan Regulated River Water Source is at Stage 3 (severe) drought criticality, reflecting the reduced water availability in 2019-20 described above. Conditions are being closely monitored and may warrant escalation to Stage 4 (extreme) drought criticality and tighter water restrictions unless there is significant system improvement.

Some of the current and planned drought contingency measures for the Lachlan Regulated River Water Source are as follows:

Drought contingency measures for the Lachlan Regulated River Water Source

Measure	Details	Potential Savings	Implementation
No further replenishment flows	Stock and domestic replenishment flows to creeks in the lower Lachlan in 2020 will rely on rain and surplus flows from large tributary inflows.	24 GL	January 2020
Flows ceased to Willandra Creek	Regulated flows to Willandra Creek ceased	7 GL	December 2019
End of system flows reduced	Operating the lower end of the system at low flow targets to improve efficiency.	3 GL	November 2019
Flows ceased to Lake Cargelligo	Inflows to lake may be ceased	4 GL	September 2020
Booberoi Creek	The combination of environmental releases and low flows will lead to some	1-3 GL	On-going

Water Allocation Statement

Water availability and allocation update



operations	efficiency savings. Creek flows have now ceased	2 GL	31 March 2020
Flows reduced to Wallamundry Creek system	Creek system will operate at low levels due to low main river levels and an inability to divert into the creeks.	3 GL	November 2019
Conservative use of the water quality allowance	The allowance will only be used if critical water quality risks emerge.	10 GL	On-going, no delivery planned beyond March 2020

Further information on critical valleys in drought can be found at: www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/drought-update/critical-valleys-in-drought

Climatic outlook

The Bureau of Meteorology's seasonal outlook for May to July indicates that conditions are likely to be wetter than average across the catchment. Temperatures are likely to be average to warmer than average. The Bureau indicates the El Niño–Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) both remain neutral.

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

Next announcements

The next water allocation statement for the Lachlan Regulated River Water Source will be issued on **Thursday 14 May 2020**.

Water Allocation Statement

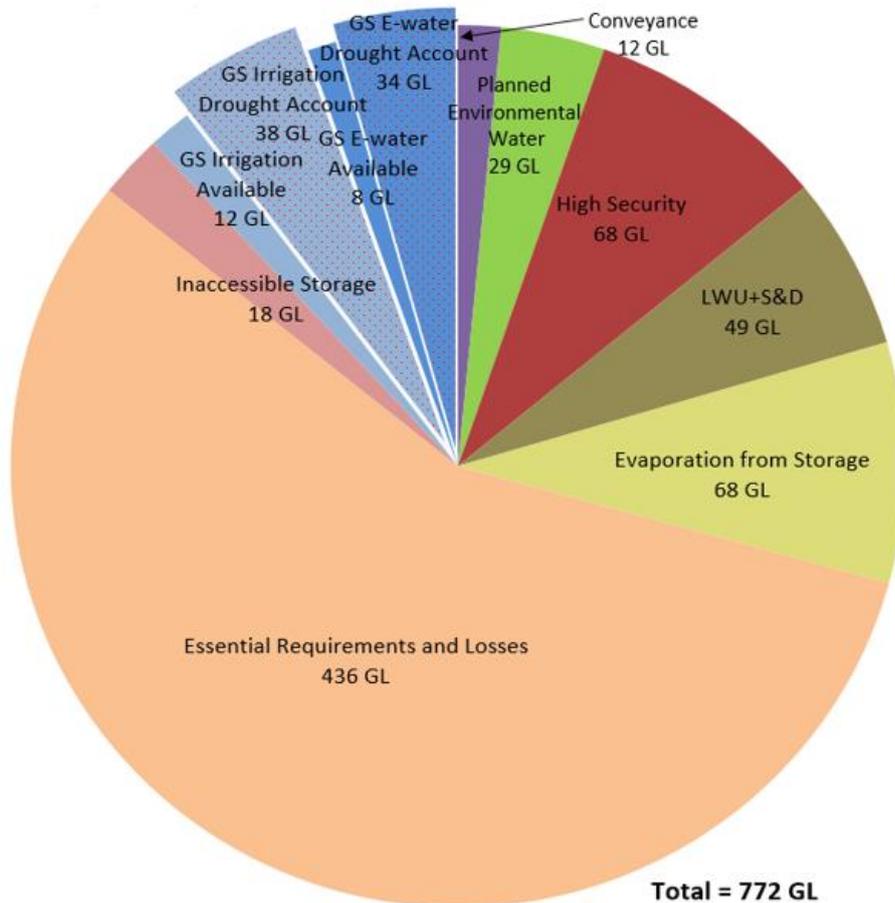
Water availability and allocation update



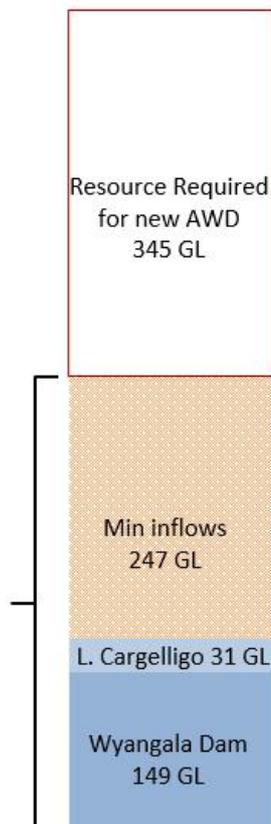
Lachlan Resource Assessment Data Sheet

Resource Distribution (April 2020 to May 2022)	Volume (GL)	Volume (GL)
Available Resource ⁽¹⁾		427
<i>less</i>		
General Security 2019/2020 AWD ^{(7),(8)}	0 (0%)	
Carryover remaining in accounts ^{(2),(8)}	92	
Conveyance	12	
Planned Environmental Water ⁽³⁾	29	
High Security ⁽⁴⁾	68	
Towns, Stock, Domestic ⁽⁴⁾	49	
Evaporation from storage ⁽⁵⁾	68	
Essential Requirements and Losses (transmission, operations) ⁽⁶⁾	436	
Inaccessible storage	18	
<i>equals</i>		
Water available for allocation (or deficit)		(345)

Resource Distribution: April 2020 to May 2022 Lachlan Regulated River Water Source



Supply Source ⁽⁹⁾



Notes:

- (1) Total available resource: End of March 2020 storage volume in Wyangala Dam, Lake Cargelligo and Lake Brewster, plus minimum forecast inflows from April 2020 to May 2022.
- (2) Carryover remaining in general security accounts, including held environmental water. Due to a temporary water restriction currently in force only 57% of this volume is available for delivery.
- (3) Planned environmental water: water allocated to the Water Quality Allowance and/or the Environmental Contingency Allowances (EWA) under the water sharing plan. 29 GL (10 GL per year to May 2022 is currently set aside for WQA). Excludes 'licence-based' environmental water. EWA allocation for 2019-20 is zero currently.
- (4) Towns, Stock, Domestic and High Security: reserves are set aside to meet 100% of these high priority entitlements to 31 May 2022 under the minimum inflow scenario. 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 2022 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, 2021, and 2022. 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 42 GL of GS, and

0.3 GL of HS. These reported entitlements are managed by environmental holder groups, including the NSW DPIE - Environment, Energy and Science (EES) 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.

The table below summarises the inflow scenarios 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, subject to change, and will be updated in monthly water allocation statements.

Inflows needed to improve deliverability of carryover (as at 31 March 2020)

2019-20 inflow period	Inflows received since 1 July 2019 (GL) <i>(to 31 March only)</i>	Additional combined inflows required to deliver remaining usable allocations in 2020-21, begin to ease GS delivery restrictions and to start increasing HS allocation	Additional inflows required to increase GS delivery to 75% and increase HS allocation to 92% (GL)	Additional inflows required for new GS AWD (GL) <i>(no restrictions)</i>
By end of May	88	128	160	345
By end of June	88	143	177	
By end of July	88	153	185	

Notes:

1. Estimated water held in general security accounts on 1 July 2019 was 155,000 ML. Water delivery operations in 2019-20 have been provided under drought contingency planning (Stage 3).
2. Usable GS allocations remaining in 2019-20 is carried over into 2020-21 and assumed fully used
3. S&D replenishment flows are delivered in autumn/winter 2020 and in 2021, prioritised from tributary inflows
4. In 2020-21 river operations will involve water savings measures and full allocations for TWS and S&D, and likely restricted allocation for HS around 70%.
5. In 2021-22 river operation is under Stage 4 (extreme) drought contingency operations with restricted allocations prioritising critical water needs
6. A minimum storage level of 5% is targeted at the end of the 2019-20 water year to maintain critical supplies in 2020-21 and beyond.
7. **Volumes required to ease current restrictions apply to the end of the current water year only. From 1 July 2020, significant inflows will need to be captured in storage before water currently in general security drought accounts can be made available for regulated delivery.**

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