

# Water Balance Report



## Lachlan Valley Water Balance 2017/18

Water Balance Component	Sources of water		Distribution of water		% of volume measured
	Volume (ML)	% of total	Volume (ML)	% of total	
<b>Storage Volume</b>					
Volume in storage at start of year	1,219,749				100%
Volume in storage at end of year	784,480				100%
<b>Change in storage</b>	<b>435,269</b>	<b>67%</b>			100%
<b>Storage net evaporation (1)</b>			<b>79,669</b>	<b>12%</b>	100%
<b>Inflows</b>					
Storage inflows	155,146	24%			100%
Downstream tributaries (2)	55,719	9%			100%
<b>Subtotal</b>	<b>210,865</b>	<b>33%</b>			100%
<b>Net water diverted under water rights (3)</b>					
Domestic and stock rights			4,211	0.7%	0%
Native title rights			0	0%	0%
<b>Subtotal</b>			<b>4,211</b>	<b>0.7%</b>	0%
<b>Net water diverted under access licences</b>					
Domestic and stock			5,563	0.9%	100%
High security (4)			90,740	14%	100%
General security			217,175	34%	100%
Local water utility			7,805	1.2%	100%
Major water utility (5)			0	0%	
Supplementary water			0	0%	
Conveyance			17,911	3%	100%
<b>Subtotal</b>			<b>339,193</b>	<b>52%</b>	100%
<b>Environmental water</b>					
Net planned diversion to wetlands (6)			16,281	3%	100%
End of system flows (7)			20,489	3%	100%
<b>Subtotal</b>			<b>36,770</b>	<b>6%</b>	100%
<b>Other Outflows (8)</b>			<b>31,256</b>	<b>5%</b>	100%
<b>Unaccounted difference (9)</b>			<b>155,035</b>	<b>24%</b>	
<b>TOTAL</b>	<b>646,134</b>	<b>100%</b>	<b>646,134</b>	<b>100%</b>	

### Notes:

- (1) The evaporation figure includes net evaporation loss from Wyangala Dam, Lake Cargelligo and Lake Brewster.
  - (2) Downstream tributaries include Boorowa R and Belubula R which contributed approximately 56 GL.
  - (3) Water rights are not metered. Values presented are as specified in Water Sharing Plan.
  - (4) Includes trading of allocations from General Security licences into state environmental licences.
  - (5) There are no Major Water Utility or Supplementary licences in Lachlan.
  - (6) Planned environmental water delivery requirements were met 100% in 2017-18. There was no translucent event triggered in 17-18. No WQA was delivered and 7,881 ML delivered as Lake Brewster ECA. A total of 8,400ML was delivered from Wyangala ECA. 34,775 ML of License Env water delivered of which 31,151 ML delivered to Forbes for fish breeding, 638ML delivered at Hillston for fish breeding and 2,986ML delivered to maintain Lake Brewster outflow wetland levels.
  - (7) Net flows in Willandra Ck at the homestead and at Booligal Weir over and above water extracted downstream are accounted as end of system flows.
  - (8) Other outflows - Stock and domestic flows delivered into Booberoi Ck (12,068ML), Merowie Ck (7,849ML), Willandra Ck (6,240 ML), Merimajeel and Muggabah Ck (5,099ML).
  - (9) Unaccounted difference is estimated as the difference between inflows, outflows and change in channel storage. This includes river evaporation, evapotranspiration, seepage, ungauged overbank flows, water in transit and channel breakouts and any measurement errors recording other components. This also includes the delivery losses in the regulated section of Willandra Ck.
- All the above figures are based on operational data used by WaterNSW and are not quality coded. Archived data may differ from the operational data due to changes in the rating tables. There are some missing data due to instrument faults and have been filled by estimates.
- The above water balance for Lachlan Valley includes Wyangala, Lake Cargelligo and Lake Brewster storages within the area covered by the Water Sharing Plan for the Lachlan Regulated River water source.