Department of Primary Industries Water

Water Allocation Statement

16 March 2017

Lachlan Valley

Water availability and allocation update

Allocations

The total allocation for general security licence holders in the Lachlan Regulated River for 2016/17 water year **remains unchanged at 124 per cent of entitlement.**

Wyangala Dam received just 45,000 megalitres of inflow during the period November 2016 to February 2017. Storage levels have reduced from full capacity in late October 2016 to approximately 88 per cent at present.

There is an assessed **deficit of 32,000 megalitres** this month before further allocation can be made. Inflows to Wyangala Dam so far in March have been negligible.

General security water users are advised that the **Annual Use Limit** that will apply in the 2017/18 water year will be a volume equivalent to **100 per cent of entitlement,** plus any adjustments up or down for trade.

	High Security	General Security	Average Carryover
Lachlan valley	100%	124%	0%

Dam releases

The main irrigation season will be finishing by mid-March. It is unlikely that any annual Stock and Domestic replenishment flows will be delivered in the autumn/winter months, as these systems experienced flood conditions in late 2016. Nevertheless, surplus flows from tributaries may be available to top up these systems.

Dam levels (as at 14 March 2017)

- Wyangala Dam was 88 per cent full, holding 1,070,000 megalitres (ML).
- Lake Cargelligo was also 88 per cent full (32,000 ML); and
- Lake Brewster was 68 per cent full (99,000 ML).

Outlook

The Bureau of Meteorology (BoM) has forecast a 30 per cent chance of median rainfall being exceeded in the Lachlan Valley during the three month period March 2017 to May 2017.

The drier than average outlook is a result of forecast higher than normal pressure over western and southern Australia, meaning fewer rain-bearing systems are likely to cross the coast during Autumn.

DPI Water has been collaborating with BoM to utilise three-month seasonal inflow forecasts to Wyangala Dam. These forecasts have been used to produce a plot of forecast storage

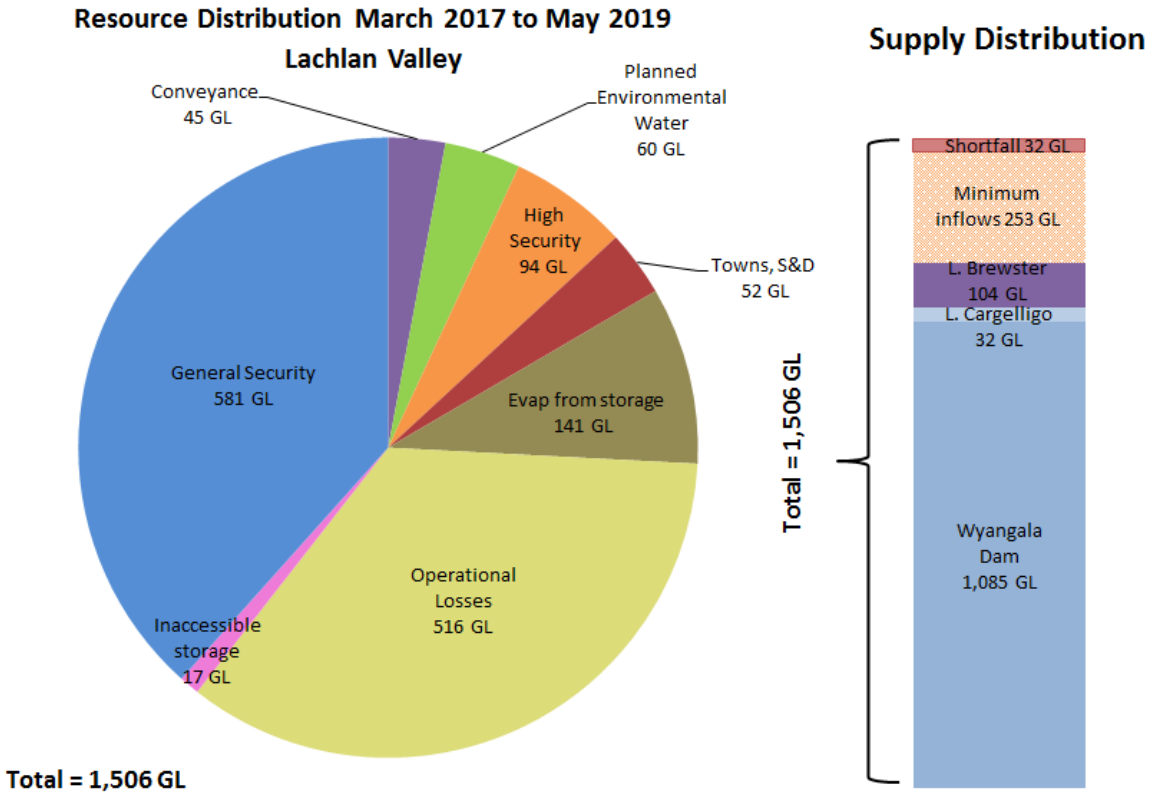
volumes under possible inflow scenarios as shown on the last page of this statement. The current forecast suggests that wet inflow conditions are unlikely over the next three months.

Next announcements

The next Water Allocation Statement is scheduled for June 2017. However, resource availability will be closely monitored and any significant resource improvements before then will be promptly announced.

Lachlan Resource Assessment Data Sheet

Resource Distribution: March 2017 to May 2019		
	Volume (GL)	
Total Available Resource [1]	1,474	
less		
General Security	581 (124%)	
Carryover remaining in accounts [2]	0	
Conveyance	45	
Planned Environmental Water [3]	60	
High Security [4]	94 (100% + trade in)	
Towns, Stock, Domestic [4]	52 (100%)	
Evaporation from storage [5]	141	
Operational Losses (transmission, operations) [6]	516	Total demand
Inaccessible storage	17	1,506



Notes:

(1) Total available resource: End of February storage volume in Wyangala Dam, Lake Cargelligo and Lake Brewster, and minimum forecast inflows from 1 April.

(2) Carryover remaining in accounts: Zero following account reset.

(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 entitlement through to 31st May 2019.

(5) It is assessed that the lakes are likely to be drawn down slowly in the current water year and will hold significant water until next summer, increasing storage evaporation.

(6) 'Operational Losses': best estimate of the volume required to run the river under dry conditions over the next 27 months to meet all demands. This mostly comprises natural transmission losses as water soaks into the river bed sands. This volume includes S&D replenishment flows in autumn 2018 and 2019. It is assumed that current tributary inflows will return to dry conditions from 1 March. This loss allowance is regularly refined as the year unfolds.

Chances of improvement

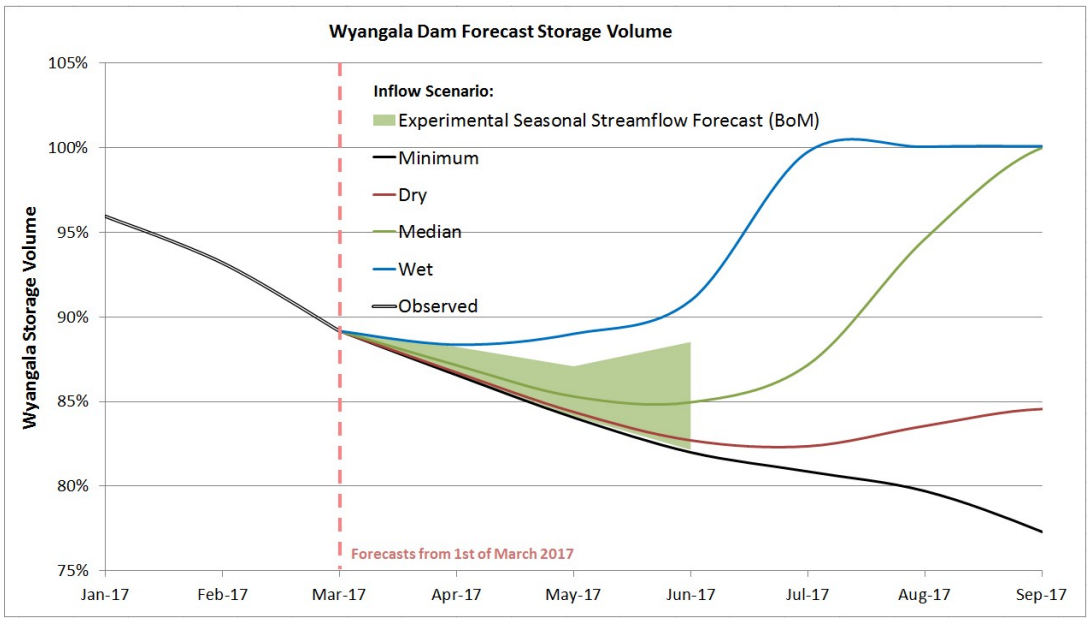
The chances of improved general security allocation, based on different inflow scenarios, are as follows:

Potential Inflow Conditions		General Security AWD (per cent) #	
		30 Jun 2017	31 Oct 2017 *
Extremely dry	(99%: 99 chances in 100)	124	0
Dry	(80%: 4 chances in 5)	124	0
Average	(50%: 1 chance in 2)	125	34
Wet	(20%: 1 chance in 5)	Storage spill/Reset 131	Storage spill/Reset 135

Add carryover from previous water year to these values

* Potential additional allocation in the 2017/18 water year

Forecast storage volume



Forecast storage volumes, shown in the solid lines above, use historical daily inflow data over the full period of record (1898 to present). They represent the chances of specific storage levels being exceeded; assuming that past climatic and hydrological conditions can help predict the likelihood of future storage levels.

Minimum	Minimum forecast inflows represent the **lowest on record to 2004**
Dry	Dry inflows represent an **80 percent chance** of being exceeded
Median	Median inflows represent a **50 percent chance** of being exceeded
Wet	Wet inflows represent a **20 percent chance** of being exceeded

Experimental Seasonal Streamflow Forecast (BoM)

The Bureau of Meteorology (BoM) seasonal forecast inflows use relationships between climate indicators (particularly global ocean and climate conditions), past catchment conditions and historical rainfall and streamflow to **forecast the total inflow volume over the next three months**. The shaded area represents the range of likely storage levels (using the 20th and 80th percentile bounds) resulting from the BoM forecast inflows. For more detail, refer to the BoM website: **http://www.bom.gov.au/water/ssf**

The BoM seasonal forecast inflows provide a new method to narrow the range of likely storage levels over the next three months compared with using historical inflows alone.

The Bureau's seasonal streamflow forecasts are not used directly in the resource assessment process.

Please note that the Bureau's seasonal streamflow forecast inflows to Wyangala Dam are still experimental at this stage and are not published on the Bureau's website. The information provided here by DPI Water is only intended to provide a more accurate estimate of likely storage levels over the next three months.

Further information

DPI Water website - www.water.nsw.gov.au