

15 March 2016

NSW Murray and Lower Darling

Water allocation update and outlook for 2016/17

Allocations

There is **no increase** in NSW Murray regulated river general security allocation at this time. This is primarily due to limited inflows and conditions remaining hot and dry in recent weeks.

The final months of the water year include preparation for meeting Water Sharing Plan (WSP) obligations for the start of the next water year; a key aspect of which includes ensuring sufficient water for high priority entitlements (towns, stock, domestic, high security allocation and carryover).

As indicated below, there is a small chance that inflows for the remainder of this year will be insufficient to assure full allocation to all high priority entitlements on 1 July; therefore, the priority for improvements is first to build toward full allocation for these entitlements on 1 July.

	High Security	General Security	Average Carryover
Murray	97%	23%	30%
Lower Darling	75%	0%	Restricted access

Upper Murray storage levels (as at 14 March 2016)

- Dartmouth Dam is currently 44 per cent full, holding 1,703,000 megalitres (ML)
- Hume Dam is 30 per cent full, holding 896,000 ML

Outlook

The Bureau of Meteorology (BoM) seasonal outlook in the region for autumn (March to May) indicates generally hot and dry conditions in March with greater chance of wetter conditions and average temperatures in April.

Flows in the upper Darling Basin (due to January rainfall) that combined with inflows from Culgoa River are now receding, but continue to push their way slowly down the Darling system, reaching Wilcannia on Sunday 13 March and likely to deposit 5,000 to 10,000 megalitres in the Lake Wetherell river channel (Menindee Lakes) from late March. These conditions will continue to be monitored and forecasts updated.

There is also an improving prospect of some rainfall over northern Australia, with BoM models forecasting rainfall in the north in the coming fortnight. Whilst the outcome for Basin rivers could be limited, the situation will nevertheless be monitored.

The current seasonal rainfall outlook continues to reflect a combination of a weakening El Niño, very warm Indian Ocean temperatures and warm sea surface temperatures near Australia.

History and climate model outlooks indicate that neutral rainfall conditions are slightly favoured ahead of La Niña (wet conditions) for the second half of 2016.

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Trade

In the Murray, trade across the Barmah choke is restricted to 'no net trade downstream'; however, there is currently capacity for downstream trade (by virtue of upstream trades).

Trade is permitted within the Lower Darling water source, but inter-valley trade is closed due to the water shortage.

Murray water users can trade **into** the Murrumbidgee Valley, but trade **out** of the Murrumbidgee Valley is currently closed. Water users are encouraged to monitor the WaterNSW website at www.waternsw.com.au/customer-service/trading/Murrumbidgee to keep informed of the Murrumbidgee IVT account balance and status of trade. Updated trade procedures have been in place since 9 February 2016, and are explained on the WaterNSW website.

Next announcements

The next allocation update for the NSW Murray will be on **1 April 2016**.

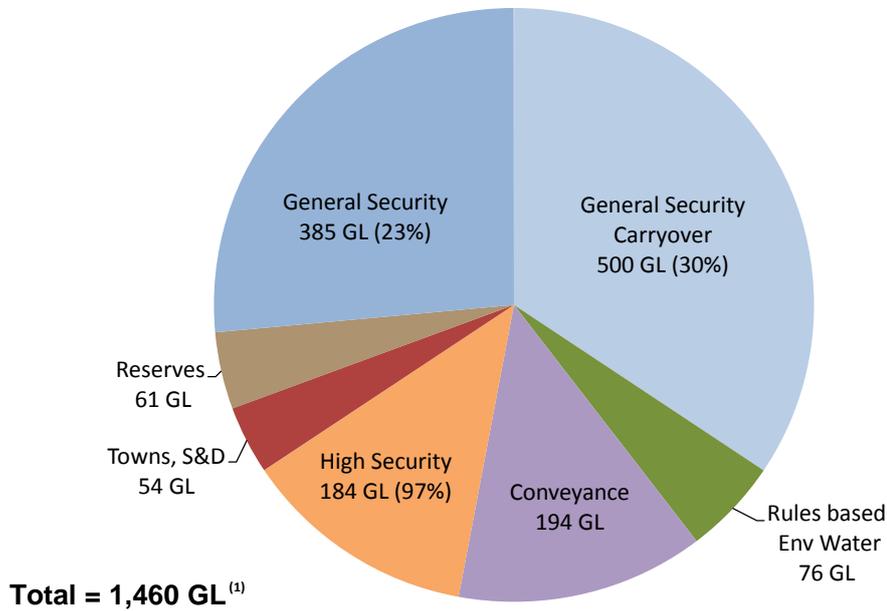
Water availability forecasts for the start of next water year (1 July 2016) are reported in this Statement and will continue to be updated on a monthly basis as the new water year approaches, with the next forecast to be provided on **15 April 2016**.

NSW Murray Resource Assessment Data Sheet

Resource Distribution (as at 15 March) for 2015-16	
	Volume (GL)
Total Available Resource	1,460 ⁽¹⁾
less	
Carryover	500
Rules based Environmental Water ⁽²⁾	76
Towns, Stock, Domestic	54 (100%)
Reserves ⁽³⁾	61
Conveyance ⁽⁴⁾	194
Announced High Security	184 (97%)
Announced General Security	385 (23%)

**See notes below.*

Resource Distribution 2015-16 NSW Murray - 15 March 2016



Notes:

- (1) Includes 6 GL of uncommitted water.
- (2) Primarily rules-based environmental water – water required to be set aside under water sharing plans to provide for riverine environments. In the NSW Murray this includes Additional Environmental Allowance (AEA) (6 GL), the Barmah Millewa Allowance (B-MA) (which is currently 100 per cent borrowed) and Wakool system requirements (70 GL). Excludes ‘licence-based’ environmental water.
- (3) Reserves – required primarily under statutory plans; used for emergency purposes and critical needs.
- (4) Conveyance entitlement – a category of access licence originally issued to Irrigation Corporations to facilitate delivery of water through their channel systems. Allocation to this category is prescribed in the water sharing plans and is a function of current high and general security allocation.

NSW Murray outlook for 2016/17 – 15 March update

Key information

- This outlook is based on extremely dry (99th percentile), inflows for the remainder of the water year - meaning that 99 years in 100 will provide more water than this outlook.
- Additional information is also provided in the case of wetter (75th percentile) conditions for the remainder of the water year.
- At this stage, March inflows are likely to be close to the 99th percentile conditions, but the BoM's forecast indicates improved chances of favourable rainfall conditions and cooler temperatures in mid to late autumn, which would assist water availability.
- In the highly unlikely event that the 99th percentile scenario unfolds for the remainder of the water year, emergency management activities and allocations would be required.
- Actual future conditions are almost certain to be better and outlooks will be updated monthly.
- Storage in Hume and Dartmouth is about 1,381,000 megalitres (ML) lower than this time last year.
- System inflows this year have been very dry, 90th percentile conditions - well below the long-term average and also below the average for the last 10 years, which includes the last drought.
- It is difficult to reliably predict end-of-year carryover, as it is highly dependent on weather conditions over the next few months and individual decisions by water users. However, it is estimated that carryover could be 500,000 ML, which is similar to the last two years.
- Once the commencing allocation is announced on 1 July 2016, regular assessments will be undertaken and allocation announcements made fortnightly on the 1st and 15th of each month, or next working day following, for the remainder of the water year.
- DPI Water will commit to provide monthly outlooks in the lead up to the commencement of the new water year on 1 July 2016.

Indicative allocations on 1 July 2016 – Lower Darling

- In the absence of significant inflows, surface water will continue to be managed adaptively in the Lower Darling ensuring that available water is prioritised for critical purposes. Access to water will be regulated through statutory water restrictions, meaning that only those water-use purposes that meet exemption criteria are allowed to pump and use raw water.
- Allocations will be made to ensure town, domestic, stock and high security access licences held by those allowed to take water, have enough account balance to ensure continued use of water while any surface water supplies remain.
- It is expected that opening general security allocation will be zero (0) per cent of entitlement in the Lower Darling unless there is significant rainfall.
- Allocations for towns, domestic, stock and high security water licences will likely commence at similar levels to last year and be similarly reviewed and updated as available resources permit.

Indicative allocations on 1 July 2016 - Murray

- Security of water for **towns**, and **domestic** and **stock** access licences, is assured.
- Full allocations for **supplementary** access licence holders, which is available subject to announced periods of supplementary flows.
- Based on an extremely dry inflow scenario for the remainder of this year, most **high security** allocation in the NSW Murray is assured on 1 July, with the balance accruing shortly thereafter.

- Based on an extremely dry inflow scenario for the remainder of this year, at least 75-90 per cent of general security **carryover** will be available on 1 July, with the balance accruing as a priority in the months thereafter.
- As indicated earlier, near full allocation to these high priority entitlements is likely by 1 July 2016, based on the BoM forecast and a better than extremely dry inflow scenario for the remainder of this year.
- It is likely that **general security** allocation will commence at zero (0) per cent of entitlement unless there is significant rainfall and storage improvement.
- Under the water sharing plan, the NSW share of the Barmah-Millewa Forest account water may be borrowed for allocations when general security is less than 30 per cent. This account, fully borrowed this year, will continue to be borrowed in 2016/17 as required.
- At least 80,000 ML of water will be available for allocation to **conveyance** entitlements on 1 July.

Chances of improvement

The chances of improved general security allocation in the NSW Murray, based on different inflow conditions, are provided in the following tables assuming extreme dry (99%) and dry (75%) inflow conditions for the remainder of this water year.

It can be seen that, because it is late in the water year, there is little difference statistically between the volume delivered by the 99% inflow scenario and the slighter wetter 75% scenario.

Forecast General Security allocation (per cent) – Extreme Dry Inflows (99%)[#]

Potential Inflow Conditions	1 Sept 2016	1 Nov 2016
99 chances in 100 (extreme) (99%)	0	0
9 chances in 10 (very dry) (90%) [^]	0	6
3 chances in 4 (dry) (75%)	6	28
1 chance in 2 (mean) (50%)	20	39**

Multi-history modelling using all years.

[^] Currently tracking in 2015/16 in this (very dry) vicinity.

Assumes extreme dry (99%) inflow for the remainder of the water year and an average general security carryover of 30% (500 GL).

** Borrow from B-M Allowance is fully repaid. Pay-back of borrow from B-M Allowance commences at 30% general security allocation.

Forecast General Security allocation (per cent) – Dry Inflows (75%)[#]

Potential Inflow Conditions	1 Sept 2016	1 Nov 2016
99 chances in 100 (extreme) (99%)	0	0
9 chances in 10 (very dry) (90%) [^]	0	9
3 chances in 4 (dry) (75%)	9	30*
1 chance in 2 (mean) (50%)	23	42**

Multi-history modelling using all years.

[^] Currently tracking in 2015/16 in this (very dry) vicinity.

Assumes dry (75%) inflows after March 2016 for the remainder of the water year and general security carryover of 30% (500 GL).

* Commence pay-back of borrow from B-M Allowance.

** Borrow from B-M Allowance is fully repaid.