



15 July 2016

NSW Murray and Lower Darling

Water allocation update

Allocations

NSW Murray general security allocation has **increased from zero to 4 per cent** of entitlement. This is due to substantial tributary inflows in recent weeks including improvement in Snowy Hydro delivery.

This assessment is based on the latest estimate of average carryover of 26 per cent. The final value will be available later this month, but no great change is expected.

Supplementary access has also been announced in some reaches of the NSW Murray, based on advice from MDBA of unregulated flow conditions – extra inflows that cannot be re-regulated. Customers holding a supplementary water access licence should confirm with WaterNSW the times and reaches where supplementary access applies.

In addition, general security licence holders can divert supplementary water ‘without debit’, bearing in mind that diversions will count toward annual usage limits. For further information refer to WaterNSW’s website at <http://www.waternsw.com.au/customer-service/news/supplementary>

In the Lower Darling, allocations currently remain unchanged; however, this will likely increase next month as inflows arrive from the upper Darling River.

Based on rainfall in the Barwon-Darling Basin in mid-late June, inflows of at least 100 GL are expected to reach the Menindee Lakes. The first of these inflows have started to enter Lake Wetherell. A special update for the Lower Darling, with additional details about the proposed management of these inflows, is provided in a separate section below.

	High Security	General Security	Average Carryover
Murray	97%	4%	26%
Lower Darling	20%	0%	Restricted access

Upper Murray storage levels (as at 14 July 2016)

- Dartmouth Dam is currently 49 per cent full – rising - holding 1,882,000 megalitres (ML).
- Hume Dam is 47 per cent full – rising - holding 1,424,000 ML.

Despite the recent inflow improvements, the upper Murray storages still remain less than half full and active Murray storage is below its long term average for this time of year.

Climate outlook

There has been some good June rainfall, particularly in the upper Murray. With the Murray catchments relatively wet from earlier rainfall events, tributaries have been particularly responsive.

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As a result, storage volumes have begun to rise from previous low levels. Murray inflow conditions have been around 30 per cent annual exceedance probability (AEP), which is in stark contrast to the drier than 90 per cent conditions earlier this year.

The Bureau of Meteorology (BoM) seasonal outlook indicates a high likelihood (at least a 75 to 80 per cent chance) of exceeding median rainfall conditions within the Murray catchment over the 3 months to September. Cooler days are also very likely.

Climate models continue to indicate an equal chance of either neutral or La Niña conditions in the second half of 2016. La Niña is often, but not always, associated with above-average winter-spring rainfall in this region. However, if a La Niña event were to develop, models suggest it would not be as strong as the most recent La Niña in 2010-12.

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 remains closed due to the severe water shortage.

Water users can trade **into** the Murrumbidgee Valley, but trade **out** of the Murrumbidgee Valley is closed. Water users are encouraged to monitor the WaterNSW website at www.waternsw.com.au/customer-service/trading/murrumbidgee for information about the Murrumbidgee IVT account balance and status of trade.

Next announcements

The next resource assessment and allocation update for the NSW Murray and Lower Darling valleys will be on Monday **1 August 2016**.

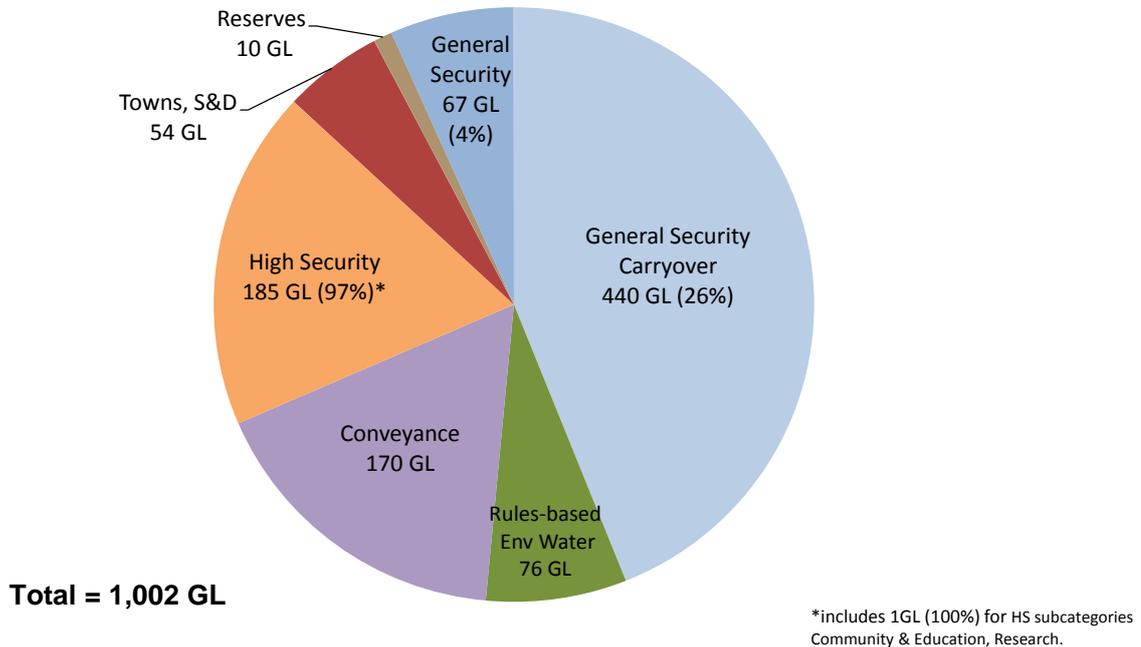
In mid-August, probability analyses will also be run to provide seasonal outlooks of likely improvement in water availability under different inflow scenarios.

NSW Murray Resource Assessment Data Sheet

Resource Distribution (as at 15 July) for 2016-17	
	Volume (GL)
Total Available Resource	1,002
less	
Carryover	440
Rules based Environmental Water ⁽¹⁾	76
Towns, Stock, Domestic ⁽²⁾	54 (100%)
Announced High Security subcategory (community & education, research) ⁽²⁾	1 (100%)
Announced High Security ⁽²⁾	184 (97%)
Conveyance ⁽³⁾	170
Reserves ⁽⁴⁾	10
Announced General Security	67 (4%)

**See notes below.*

Resource Distribution 2016-17 NSW Murray - 15 July 2016



Notes:

- (1) 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.
- (2) The *Water Sharing Plan for the New South Wales Murray and Lower Darling Regulated Rivers Water Sources 2016* has subcategories of High Security licenses in the Murray Water Source. High Security subcategory licences under *Part 7 Division 2 Clause 46(2)* that are present in the Murray include community and education, research, and town water supply. These licences are to receive 100% allocation at the commencement of each water year. Remaining High Security licences are to receive 97% allocation. For the purposes of this water allocation statement, the High Security – Town Water Supply allocation volume has been grouped with "Towns, S&D".
- (3) 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 plan and is a function of current high and general security allocation.
- (4) Reserves – required primarily under statutory plans; used for emergency purposes and critical needs.

Lower Darling – summary and update

- The northern wet season rains failed for the 3rd consecutive season, and the Lower Darling entered its driest inflow sequence on record. For comparison, inflows over the last three water years totalled about 260,000 ML (7/2013 – 6/2016), which is less than half the volume received during the worst three consecutive years (7/2004 – 6/2007) of the previous worst drought - the Millennium Drought.
- Current storage volume in the Menindee system is about 65 GL, or 3.7 per cent. This volume is primarily held in Lake Wetherell (includes Lake Tandure as they are currently connected hydraulically). Design storage capacities and current volumes, including estimated dead storage volumes, are provided below. It is important to note that dead storage values are uncertain and can change over time. They should be used with caution.

Storage	Full Supply Volume (GL) **	Estimated Dead Storage (GL)	Current Volume (GL)*
Lake Wetherell (river section)	193	0.5	63
Lake Tandure		9	
Copi Hollow	7	3	2
Lake Pamamaroo	271	10	0
Lake Menindee	629	51	0
Lake Cawndilla	631	48	0
TOTAL	1,731		

*Includes dead storage. ** Storages can be temporarily surcharged.

- Due to the severe water shortage, surface water continues to be managed adaptively in the Lower Darling to ensure that available water is prioritised for critical purposes. Access to water is regulated through statutory water restrictions, meaning that only those water-use purposes that meet exemption criteria are allowed to pump and use raw water. This will continue in 2016-17 until there is sufficient resource available to lift restrictions.
- As with last year, allocations will continue to be made to ensure that town, domestic, stock and high security access licences (for use on permanent plantings) are allocated water to meet requirements commensurate with available water. It is again expected that prudent restraint will continue to be exercised by water users while the water shortage remains.
- An inflow event has reached Menindee and is expected to deliver at least 100 GL in coming weeks. At least 35 GL will be set aside for release to the Lower Darling, sufficient to provide low flows in the Lower Darling well into Spring and replenish the block banks below Pooncarie.
- Releases are likely to commence within the next two weeks. Operational details and river-rising alerts will be provided to Lower Darling landowners at least 3 days beforehand.
- Water quality monitoring is being arranged and information and advice will be provided.
- The inflows will also extend surface water supply for Broken Hill beyond 2017.
- In terms of historical context, the current inflow event is about 10 per cent of the average annual inflow volume, therefore offers only temporary relief from the severe water shortage. At this stage contingency measures, including the block banks and water restrictions, will need to remain.
- There is evidence; however, that weather patterns are moving away from the very dry conditions experienced in recent years and there is considerable optimism that rainfall and runoff will continue to bring recovery to Menindee and the Lower Darling.
- DPI Water will continue to monitor conditions and provide advice accordingly.