



15 September 2016

## NSW Murray and Lower Darling

### Water allocation update

#### Allocations

**NSW Murray** general security allocation has **increased by 12 per cent to 42 per cent** of entitlement with a commensurate increase in allocation to conveyance entitlements. Above average rainfall and wet catchment conditions continue to provide steady system inflows and storage improvements. Average general security carryover in NSW Murray water user accounts is 27 per cent of entitlement, meaning that general security water availability overall is 69 per cent.

With Hume Dam at 97 per cent capacity, it is effectively full and air-space operations are continuing to safely pass inflows. NSW Murray general security allocations are not at 100 per cent because no Menindee resources are available to the Murray and Dartmouth Dam is only 61 per cent full.

In accordance with the water sharing plan, the full Barmah-Millewa Allowance (B-MA) borrow has been repaid as part of this assessment. The pay-back was made simpler because the B-MA was reduced to 200 GL by spill provisions that were triggered when Hume Dam spilled.

Supplementary access continues to be available in the NSW Murray. Water users should confirm with WaterNSW the times and reaches where access applies. In addition, general security licence holders can divert supplementary water 'without debit' while allocations are less than 60 per cent 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>.

The **Lower Darling** regulated water source continues to steadily improve as the Darling River delivers inflows to the Menindee Lakes system. Lake Wetherell is surcharged and water is being transferred to fill Lake Pamamaroo. It is estimated that water currently in the upper catchment can be managed in these upper two lakes; however, if catchment rainfall continues, as seems likely, transfers to Lake Menindee will commence.

Water currently captured is dedicated to securing water supply for Broken Hill until the Murray pipeline is commissioned, running the Lower Darling continuously through 2017 and meeting all high priority commitments. There is also sufficient water to announce a **50 per cent allocation to general security entitlements**, the first allocation for this water year.

The Menindee Lakes system is nearly 16 per cent full. At the current rate of system improvement further increases in general security allocation are highly likely.

	High Security	General Security	Average Carryover
Murray	97%	42%	27%
Lower Darling	100%	50%	34%

#### Upper Murray storage levels (as at 14 September 2016)

- Dartmouth Dam is currently about 61 per cent full – rising - holding 2,371,000 megalitres (ML).

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[www.water.nsw.gov.au](http://www.water.nsw.gov.au)

- Hume Dam is 97 per cent full, holding 2,913,000 ML.

It should be noted that these storages are operated to equalise the risk of spill based on long-term historical records, and thereby maximise resource availability. Realistically however, rainfall and inflows are quite variable and storages can become out of balance, as is currently the case.

## Climate outlook

There has been significant rainfall in the Murray and Murrumbidgee headwater catchments in August and early September and catchments remain wet.

The Bureau of Meteorology (BoM) seasonal outlook continues to indicate that Spring rainfall is likely to be above average across parts of northern Australia. For most parts of the Murray catchment the chances of a wetter or drier three months are roughly equal. September is likely to be wetter in localised areas of southern NSW.

The current outlook reflects a weakening negative Indian Ocean Dipole and tropical Pacific Ocean temperatures, potentially approaching La Niña thresholds.

## Trade

In the Murray, trade across the Barmah choke is restricted to 'no net trade downstream'. Downstream trade opens automatically to the extent of the volume of any upstream trade. The trade restriction is in place to prevent water trades from placing excessive physical water delivery demand on choke channel capacity during the year, which could affect the water security of existing entitlement holders. Water users are encouraged to monitor the MDBA website at <http://www.mdba.gov.au/managing-water/water-markets-trade/interstate-water-trade/barmah-choke-trade-balance> for information about the trade balance and status of trade.

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

Trade **into** (and within) the Murrumbidgee Valley is open, but trade **out** of the Murrumbidgee Valley is closed. Water users are encouraged to monitor the WaterNSW website at [www.watnsw.com.au/customer-service/trading/murrumbidgee](http://www.watnsw.com.au/customer-service/trading/murrumbidgee) for information about the Murrumbidgee IVT account balance and the current status of Murrumbidgee trade.

## Next announcements

The next resource assessment and allocation update for the NSW Murray and Lower Darling valleys will be on **Tuesday 4 October 2016**. The additional detailed information including an update of the attached rocket diagram will be issued on Monday 17 October 2016.

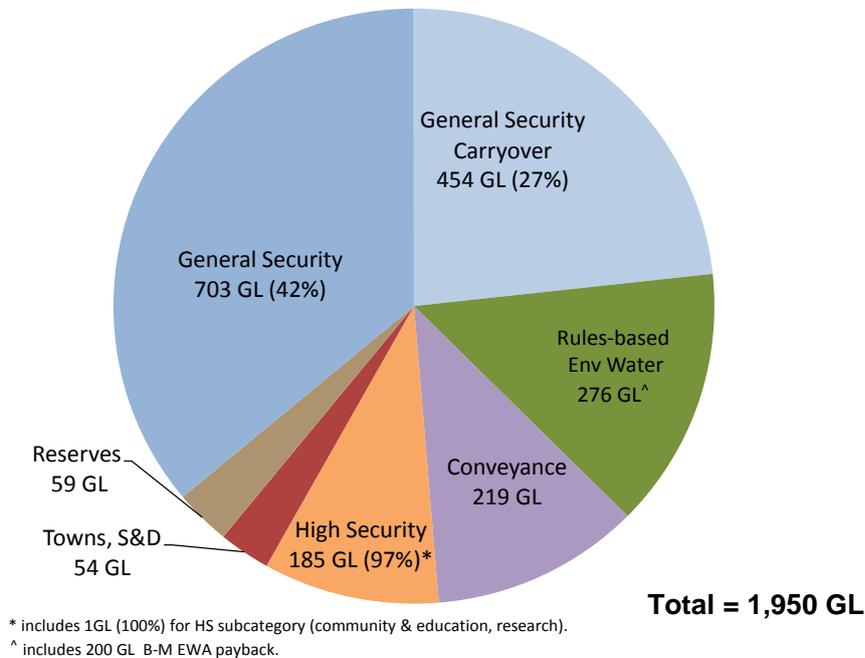
## NSW Murray Resource Assessment Data Sheet

Resource Distribution (as at 15 September) for 2016-17	Volume (GL)
Total Available Resource <sup>(1)</sup>	1,950
<b>less</b>	
Carryover	454
Rules based Environmental Water <sup>(2)</sup>	276
Towns, Stock, Domestic <sup>(3)</sup>	54 (100%)
Announced High Security subcategory (community & education, research) <sup>(3)</sup>	1 (100%)
Announced High Security <sup>(3)</sup>	184 ( 97%)
Conveyance <sup>(4)</sup>	219
Reserves <sup>(5)</sup>	59

Announced General Security	703 ( 42%)
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\*See notes below.

## Resource Distribution 2016-17 NSW Murray - 15 September 2016



### Notes:

- (1) NSW is currently in Special Accounting with South Australia but this has no material impact on NSW allocations. Special accounting is triggered when NSW forecast is unable to meet the required reserve of 1,250 GL by the end of the year to supply South Australia (SA) with its entitlement in the following water year. Details can be found in the MDB Agreement Clauses 123-129.
- (2) Rules-based planned 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), Wakool system requirements (70 GL), and the Barmah-Millewa Allowance (B-MA). The B-MA can be fully borrowed by consumptive users when general security allocations are less than 30 percent. The current B-MA account balance is 200 GL. This volume has reduced from the last assessment due to spill provisions in the WSP. The full B-MA balance (200 GL) has now been repaid. Licence-based environmental water is not included in this rules-based environmental water category.
- (3) 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 as “Towns, S&D”.
- (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 plan and is a function of current high and general security allocation.
- (5) Reserves – required primarily under statutory plans; used for emergency purposes and critical needs.

## Lower Darling – Summary and Update

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- From a low of about 47,000 megalitres in June, there has been 220,000 megalitres (ML) of inflow so far to Menindee Lakes, bringing the system to nearly 16 per cent capacity. At least another 210,000 ML is forecast to arrive in coming weeks from tributaries across the upper Barwon-Darling system.
- Lake Wetherell is surcharged and Lake Pamamaroo is about 17 per cent full. Transfers to fill Lake Pamamaroo have commenced, thereby making room in Lake Wetherell for more inflows.
- Water currently captured is dedicated to securing water supply for Broken Hill until the Murray pipeline is commissioned, running the Lower Darling continuously through 2017 and meeting all high priority commitments. It also means that the emergency bore water project is not needed at this point.
- Nearly 33,000 ML has been released from Lake Wetherell to the Lower Darling River since releases commenced in late July. This includes the initial replenishment release, as well as a second release of extra water used to assist with water quality outcomes. Flows are currently being reduced to around seasonal minimums to protect longevity of supply to the Lower Darling.
- DPI Water and WaterNSW are continuing the program of monitoring flow rates and water quality. Water users are being kept informed of water quality test results as they come to hand.
- Water quality has improved substantially at Menindee and in the Lower Darling; however, the focus continues to be on a plume of salty water progressing through the Wentworth weir pool.
- Profiling of the pool is being undertaken to measure the location and movement of the salt. Results from 12 September show water quality improving as the plume naturally disperses.
- Water from the second Lake Wetherell release should reach the Wentworth weir pool shortly. Additionally, Lock 10 on the Murray River is being lowered, initially by 40 cm, in an attempt to draw saline water more quickly from the weir pool.
- Rainfall across the Lower Darling district is helping to reduce irrigation demand and mitigate potential water quality impacts.
- WaterNSW is consulting closely with its customers in the Lower Darling.
- Work on the pipeline from the Murray to drought-proof Broken Hill has commenced and is expected to be completed by late 2018.
- The Bureau of Meteorology is forecasting an equal chance of drier or wetter conditions this Spring and a likely early onset for the northern (summer) wet season.
- This information will be updated in the next water allocation statement on 4 October 2016.

**NSW Murray Resource Assessment – Comparison with this time last year**

Item	Mid Sep 2015 (GL)	Mid Sep 2016 (GL)	Comments
NSW share of total resources	1,040	1,950	Wetter conditions in 2016
less			
Carryover	500	454	similar carryover
Environmental	56	276	about 5 times of last year's
Towns, Stock, Domestic	54	54	same
Conveyance	170	219	about 130% of last year's
High Security	183	185	same
Critical Human Need (CHN) reserve*	10	59	about 6 times of last year's
General Security	67	703	much higher GS alloc'n 2016

\* CHN reserve target 61 GL.

**Chances of improvement**

The chances of inflows being above historical minimums, and therefore the likelihood of improved allocations, are as follows:

<b>NSW MURRAY Potential Inflow Conditions #</b>	<b>Forecast 1 Nov 2016 General Security Allocations*</b>	<b>Forecast 1 Feb 2017 General Security Allocations*</b>
Current allocation (99% inflows)	42%	42%
9 chances in 10 (very dry) (90%)	43%	51%
3 chances in 4 (dry) (75%)	51%	66%
1 chance in 2 (average) (50%)	65%	100%
1 chance in 4 (wet) (25%) <sup>##</sup>	72%	100%

# Using all years of inflow records.

\* Licence holders can add individual carryover to the relevant percentage up to a maximum of 110% of entitlement.

# [We are currently tracking here.](#)

# NSW Murray Valley Outlook

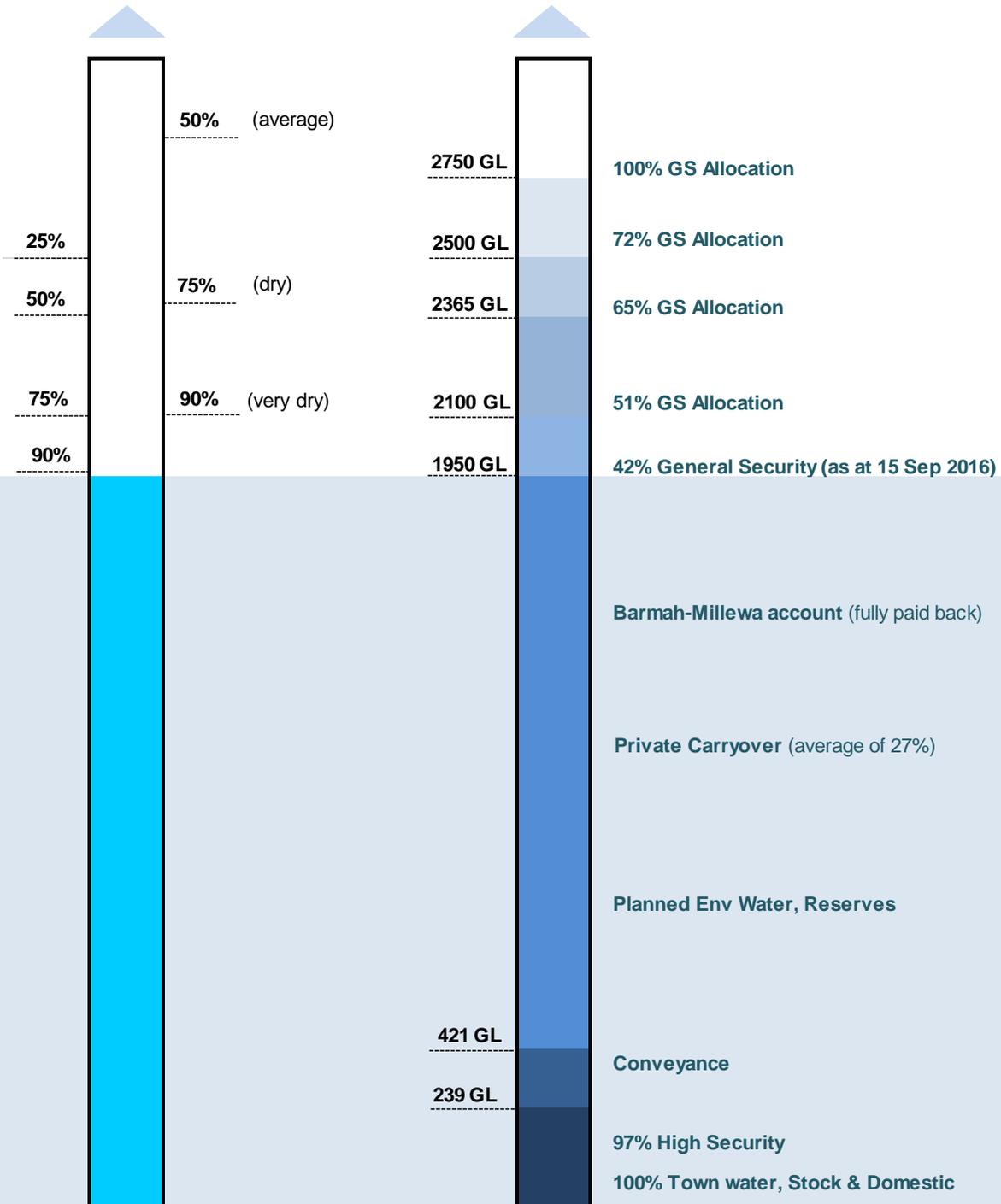
as at 15 September 2016

## Probability of improvement

## Indicative requirements

1-Nov

1-Feb



Note: The figure is based on probabilities and does not guarantee allocations, volumes are indicative only. Large volume items are listed in this figure to provide context, refer to Data Sheet table for complete listing of items contained within the Total Available Resource value.