

15 July 2021

## NSW Murray and Lower Darling

### Water allocation update

**There is a 7% increase to general security water allocations in the NSW Murray regulated river water source.** This brings the total cumulative allocation to general security in the NSW Murray to 10% of entitlement for this water year. All **Lower Darling** regulated river entitlements, including **general security**, received their full allocation (100%) for this water year on 1 July 2021.

Above average rainfall through June and inflows arriving from the Murrumbidgee system have increased NSW Murray resources by approximately 115,000 megalitres (ML) since the last assessment. High inflows from the Murrumbidgee are being re-regulated in Lake Victoria as far as possible, thereby boosting NSW Murray resources.

Once the re-regulation capacity of Lake Victoria is exceeded and unregulated flow conditions occur in the Murray, NSW can announce supplementary access. Water users should monitor the WaterNSW website ([waterinsights.waternsw.com.au/](http://waterinsights.waternsw.com.au/)) for the publication of supplementary access announcements.

The Barmah Millewa Environmental Water Allowance (BMEWA) has been fully borrowed as of 1 July 2021 to underpin water allocations this water year. Payback of the borrow will commence once allocations to general security licences reach 30% of entitlement, in accordance with the water sharing plan. To be clear, earlier messaging of a potential accelerated payback of the borrowed water in 2021-22 is no longer the case.

Inflows into the Menindee Lakes system continue to accrue, with the current combined storage around 1,100,000 ML. A number of gauges upstream of the lakes are recording significant flows, therefore the total storage is expected to increase further in the coming weeks. The Menindee Lakes System will remain a shared resource with the Murray until it next falls below 480,000 ML, after which, the system will be managed to meet Lower Darling needs only.

2021-22	High Security	General Security	Average Carryover
Murray	97%	10%	39%*
Lower Darling	100%	100%#	2%*

# Availability of allocation on individual licences is subject to account limits as per the rules in the water sharing plan  
\* Carryover is provided as an estimate only. Final carryover numbers will be provided once accounts have been reconciled for the 2020-21 water year.

### Murray storage levels (as at 14 July 2021)\*

- Dartmouth Dam is 67% full – steady – holding 2,575,000 ML.
- Hume Dam is 63% full – rising – holding 1,920,000 ML.
- Lake Victoria is 61% full – rising – holding 425,000 ML.

\* The NSW share of this water is approximately 34%, 49% and 33% for these storages respectively, or 39% in total (averaged across all three storages).

## State sharing of the Murray resource

The bulk accounts assessment indicates that 5,850 gegalitres (GL) of total shared Murray resource is available in the extreme dry (99<sup>th</sup> percentile) case, of which about 2,500 GL is needed to run the system, incorporating South Australia's 'operational' (dilution and loss) entitlement and any shared resource which cannot be regulated. The NSW portion of the regulated shared resource is 1,470 GL, based on rules in the Murray-Darling Basin Agreement. Following adjustments including South Australia's non-dilution entitlement, trade, tributary inflows and usage to date, the assessment results in a volume of **Murray resource for NSW to allocate of 1,345 GL**.

## Climatic outlook

The Bureau of Meteorology's seasonal outlook for August to October indicates that rainfall is highly likely to be above average across the catchment. Daytime and overnight temperatures are likely to be average to warmer than average.

The Bureau's El Niño-Southern Oscillation indicator remains inactive. Models indicate that negative Indian Ocean Dipole conditions may develop in the coming week, which may increase the chances of above average rainfall in winter-spring.

For further details: [www.bom.gov.au/climate/outlooks/#/overview/summary](http://www.bom.gov.au/climate/outlooks/#/overview/summary)

## Trade

In the Murray, trade across the Barmah choke remains restricted to '**no net trade downstream**'. Downstream trade opens to the extent of the volume of any upstream trade. Water users are advised to monitor the Murray-Darling Basin Authority (MDBA) website ([www.mdba.gov.au](http://www.mdba.gov.au)) for information about the trade balance and status of trade across the Barmah choke.

Temporary trade between the Lower Darling and the Murray is now open and will likely remain open until the system next falls below 480 GL. Trade within the Lower Darling regulated river water source remains open.

The normal operating range for the Murrumbidgee IVT account is between 0 GL and 100 GL. Trade **out** of the Murrumbidgee is **closed**, while trade **into** the Murrumbidgee Valley is **open** (as of 14 July 2021). Water users should monitor the WaterNSW website ([www.waternsw.com.au](http://www.waternsw.com.au)) for daily information about the IVT account balance, the status of trade, and other information. The IVT account balance at the end of the previous water year has carried forward into this water year.

## Next announcement

The next water allocation statement will be published on **Monday 2 August 2021**. It will be a short statement, updating any improvements in resource and allocations.

The next comprehensive statement, including the likely improvement in general security allocations under various inflow scenarios, will be published on Monday 16 August 2021.

### NSW Murray resource assessment data sheet

Resource Distribution* (15 July) for 2021-22	Volume (GL)
Total Available Resource <sup>(1)</sup>	1,345
<b>less</b>	
Carryover <sup>(2), (8)</sup>	650 <sup>#</sup>
Rules based Environmental Water <sup>(3)</sup>	31
Towns, Stock, Domestic <sup>(4)</sup>	62 (100%)
Announced High Security subcategory <sup>(4)</sup>	<1 (100%)
Announced High Security <sup>(4)</sup>	184 (97%)
Conveyance <sup>(5)</sup>	178 (54%)
Wakool Allowance <sup>(6)</sup>	70
Reserves <sup>(7)</sup>	3
Announced General Security <sup>(8)</sup>	167 (10%)
Year 2 (2022-23) high priority needs <sup>(9)</sup>	0

\*See notes below

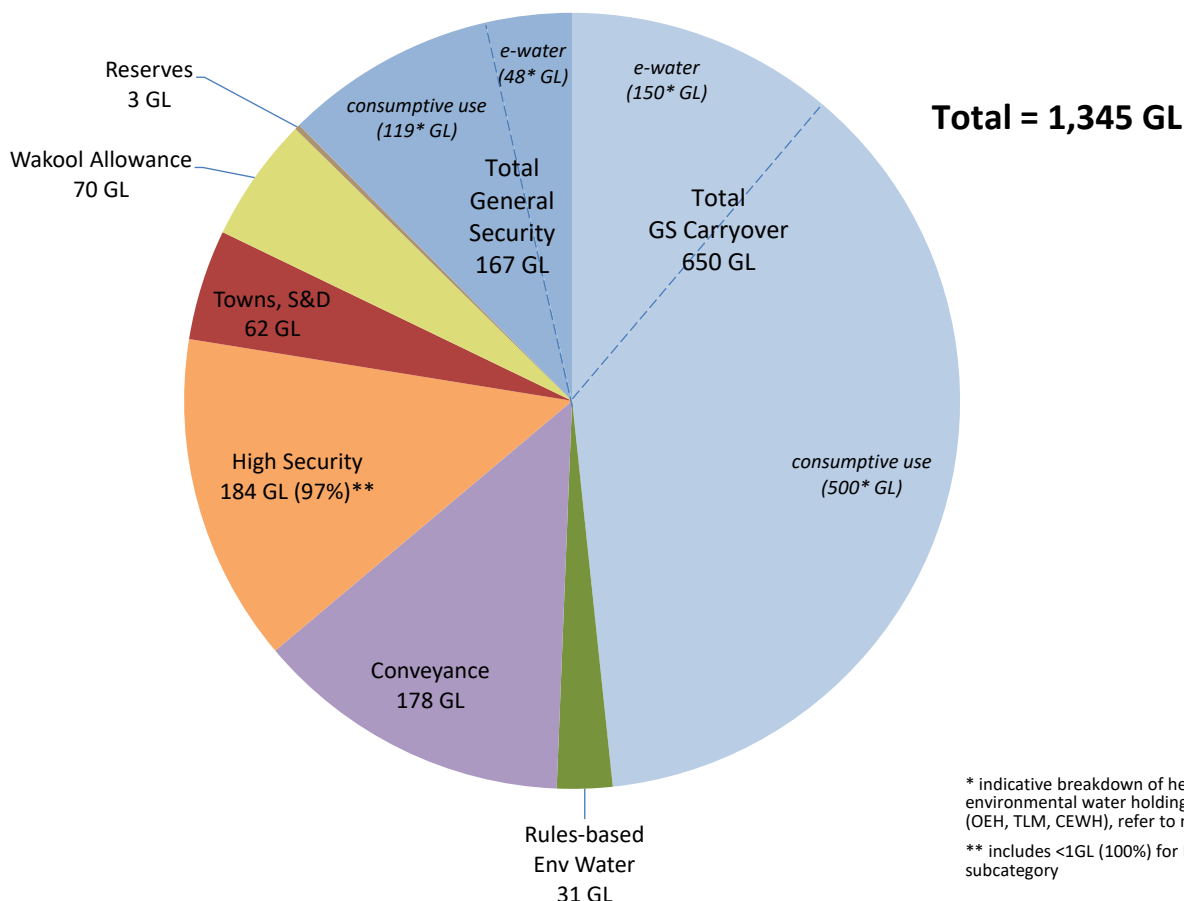
<sup>#</sup> Carryover volume estimated. Final carryover numbers will be provided once accounts are reconciled for the 2020/21 water year.

# Water Allocation Statement

Water availability and allocation update



## NSW Murray resource distribution 2021-22 – 15 July 2021



### Data sheet notes

- (1) Total available resource - NSW's state share of active storage volume (Hume, Dartmouth, Menindee and Lake Victoria) as assessed and accounted for under the Murray-Darling Basin Agreement at the time of the assessment plus any usable flows in transit plus assumed (99%ile) inflows for the rest of the year plus Snowy Hydro's assured Required Annual Release (RAR) (including any flex (pre-release) from the prior year), as well as estimated usage to date. Snowy Hydro's M1 releases to date for this water year (2021-22) is estimated to be about 300 GL. NSW is not in Special Accounting with South Australia (SA) however is forecast to enter Special Accounting on 1 August. The details of Special Accounting can be found in the MDB Agreement clauses 123-129. Special Accounting is triggered when forecasts indicate that NSW will have an end of year reserve of less than 1,250 GL.
- (2) Carryover – NSW Murray General Security water users can carryover a maximum account balance of 50% of their entitlement into the following water year. The account limit is 110% of entitlement, meaning that account credits from allocation and/or carryover cannot exceed 110% of entitlement in any water year. The limit does not include allocation trade.
- (3) Primarily rules-based planned environmental water (PEW) – water required to be set aside to provide for riverine environments, as per the Water Sharing Plan and other inter-jurisdictional agreements. In the NSW Murray this includes the Murray Additional Allowance (MAA) (about 6GL) and the Barmah-Millewa Allowance (B-MA) (0 GL – will remain fully borrowed until GS allocations reach 30%, borrowed balance is 350 GL). It also includes River Murray Increased Flows (RMIF) in Hume, accrued as part of the Snowy Water Initiative (currently 25 GL). The total commitments to B-MA and RMIF will decrease over the water year as they are released from Hume for use. Excludes 'licence-based' environmental water, known as held environmental water (HEW).
- (4) 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. At the commencement of each water year, these licences are to receive 100% allocation, while 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".

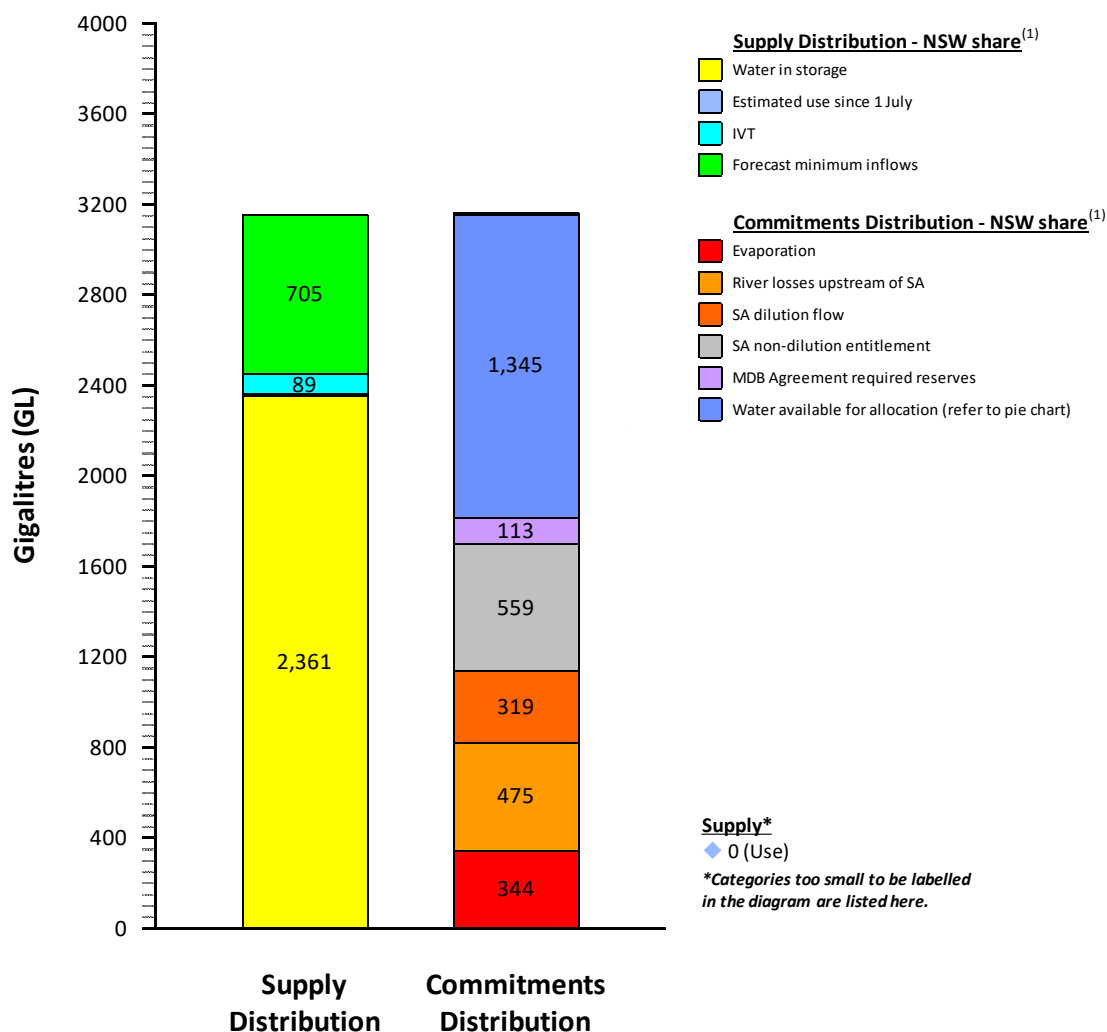
# Water Allocation Statement

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- (5) 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.
- (6) Wakool Allowance – a conveyance volume necessary for NSW to operate the Edward-Wakool system. Typically up to 70 GL.
- (7) Reserves – required primarily under statutory plans, up to 61GL; set aside for critical human needs in accordance with Clause 11.03 of the Basin Plan.
- (8) Held environmental water (HEW) – water administered by environmental water holders is reported here, with the associated portions of general security allocation and carryover also identified in the above pie chart. This reporting of held environmental water is limited to only NSW entitlements, reporting of credits to accounts (not usage or trade), and estimated to be 49 GL of GS, 24 GL of HS, 27 GL of conveyance allocation and 150 GL of GS carryover. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Department of Planning, Industry and Environment (DPIE), The Living Murray (TLM) and the Commonwealth Environmental Water Holder (CEWH). Details on environmental holdings can be found on individual agency websites.
- (9) 2022-2023 high priority needs on 1 July 2022 - volume set aside to cover high priority needs on 1 July 2022, for 'Year 2'.

## NSW Murray water balance – 15 July 2021



### Water balance notes:

- (1) Supply and Commitments Distribution – The volumes in the categories shown are only those relating to NSW’s share of the resource, at the end of the preceding month. The categories include the following:
- Water in storage: Volumes in the dams at the end of the previous month. (Excludes water in storage unavailable to NSW under the water sharing arrangements of the Murray Darling Basin Agreement).
  - Estimated use since 1 July: Estimated NSW usage to-date, reconciled periodically with hydrographic updates (meter readings).
  - Forecast inflows: NSW’s share of forecast inflows into the River Murray System based on assumed extremely dry future conditions (includes Snowy Hydro’s guaranteed inflows for the water year, and Murrumbidgee end of system flows).
  - IVT: Total tributary system water bought by Murray system users that is yet to be delivered.
  - Evaporation: Water set aside for evaporation for the remainder of the year. This reduces as the year progresses.
  - River losses upstream of SA: Water budgeted for transmission losses from the River Murray system upstream of the South Australian border for the remainder of the year. Generally reduces as the water year progresses.
  - SA non-dilution entitlement: Water to supply South Australia’s entitlement flow, as required under the Murray-Darling Basin (MDB) Agreement. Generally reduces as water year progresses.
  - SA dilution flow: Water to provide South Australia’s dilution and conveyance component of flow, as required under the MDB Agreement. Reduces as the year progresses, unless Additional Dilution Flow (ADF) is triggered.
  - MDB Agreement required reserves: Includes conveyance reserve and minimum reserve to be set aside for use in the next water year, as required by the MDB Agreement in clause 102D and 103, respectively.
  - Water available for allocation: NSW’s bulk share of the resource that can be assigned to NSW Murray entitlement holders based on the Water Sharing Plan. Allocation of this volume is provided in the above table and pie chart.

## NSW resource assessment – comparison with this time last year

Item	Mid July 2020 (GL)	Mid July 2021 (GL)	Comments
NSW Share of total resources	885	1,350	Improved conditions have enabled a high opening resource. No opening shortfalls.
less			
Carryover	350	650	Higher carryover in 21/22 due to higher allocations in 20/21.
Environmental	7	31	25 GL of RMIF and 6 GL of Murray Additional Allowance in July 2021.
Towns, Stock, Domestic	68	62	Approximately 6 GL of temporary critical conveyance licences are no longer required in 2021/22 due to improved conditions.
Conveyance	168	178	Commensurate with general security allocations.
Wakool Loss	70	70	
High Security	184	184	
General Security	33	167	10% allocation in 2021/22 vs 2% in 2020/21.
Reserves	5	3	

## Chances of improvement

The chances of improved general security allocations, based on a repeat of historical inflows, are provided in the following table under a variety of conditions. The forecast is based on all available historical data, which is appropriate given the seasonal outlook and gives a better outlook than using just the driest years on record (dry tercile). To be clear, the analysis considers historical data and does not explicitly consider the likely wet conditions in the seasonal rainfall forecast.

It is important to note that these estimates are indicative improvements only and are not guaranteed allocations. Estimates may change based on weather conditions, water management decisions and river operations. This means water users should use this information with caution and at their own risk.

### Forecast general security allocations (%)

(Any carryover water can be added to these indicative allocations)

Repeat of historical inflow conditions	1 Sep 2021	1 Nov 2021
99 chances in 100 (extreme) (99%)	10%	10%
9 chances in 10 (very dry) (90%)	11%	22%
3 chances in 4 (dry) (75%)	20%	30%*
1 chance in 2 (mean) (50%)	29%	38%#

\*Payback of Barmah Millewa EWA commences at 30% GS allocations.

#Payback of Barmah Millewa EWA complete.

Note 1: Estimated values indicative only, not guaranteed and subject to change based on actual events unfolding.

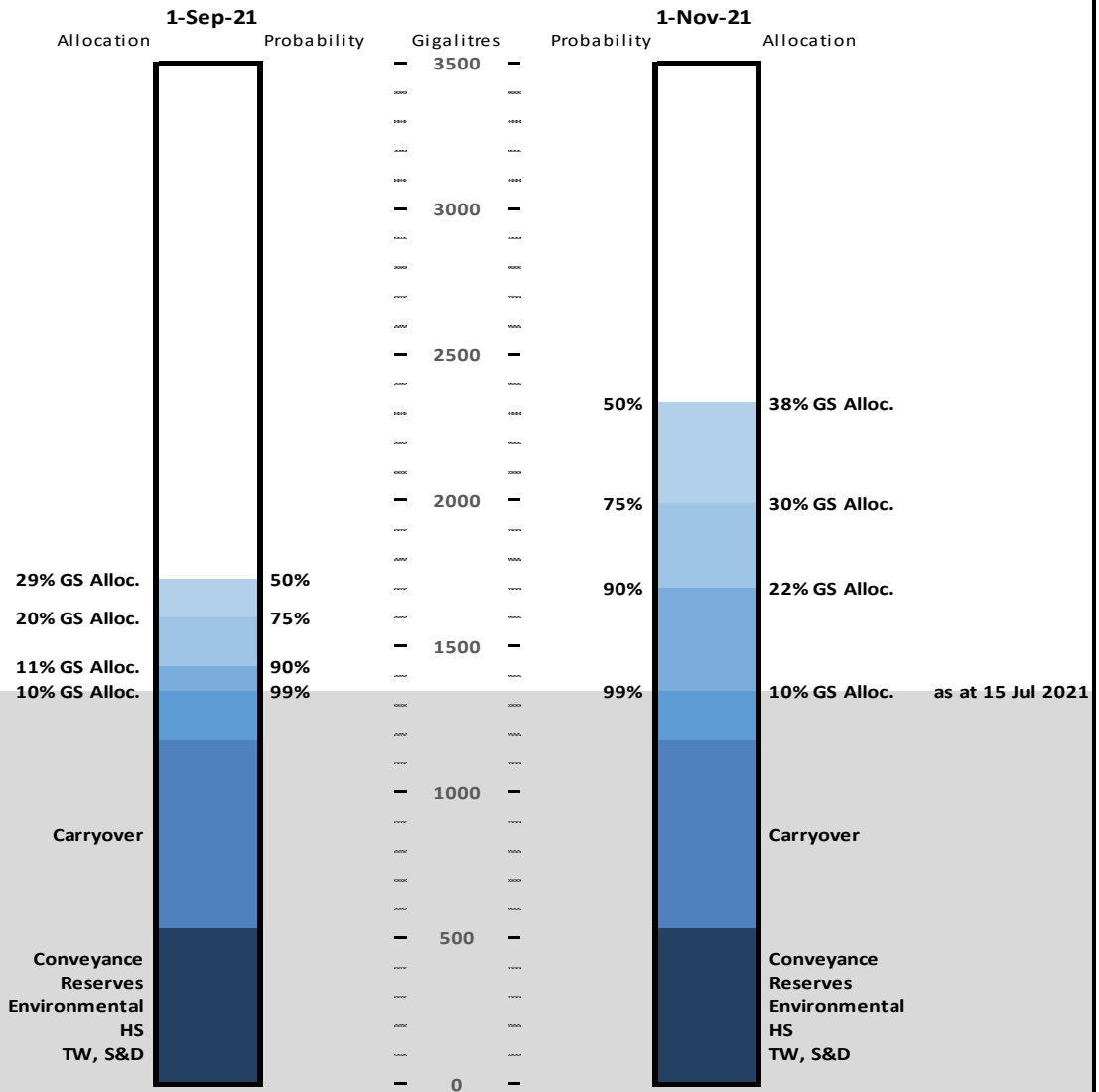
Note 2: Statistical values reflect NSW share of inflows, not whole of system inflows.

Note 3: Forecast assumes 39% general security carryover.

Note 4: Forecast incorporates Murrumbidgee regulated end of system flows.

## NSW Murray Valley Outlook

as at 15 July 2021



This figure provides indicative improvements in general security allocations for two forecast snapshots, 1 September 2021 and 1 November 2021. The allocation improvements are indicative only, and do not constitute guaranteed allocations. As of 15 July 2021, General Security allocation is at 10 per cent, and under 99% inflow conditions, will remain the same for the rest of the water year.

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