

1 September 2021

NSW Murray and Lower Darling

Water allocation update

There is **no change to general security** water allocations in the **NSW Murray** regulated river water source. The total cumulative allocation to general security licences in the NSW Murray remains at 30% of entitlement for this water year. Incorporating carryover, average general security water availability is approximately 73% of entitlement. All **Lower Darling** regulated river entitlements, including **general security**, received their full allocation (100%) on 1 July 2021.

Rainfall and inflows in August have helped increase the NSW Murray resources by approximately 35,000 megalitres (ML) since the last assessment. The improvement has been used to continue the payback of the Barmah-Millewa Environmental Water Allowance (BMEWA) in accordance with the water sharing plan. So far 148,000 ML has been repaid with a further 202,000 ML to go. Any water in the BMEWA account is borrowed on 1 July each year to boost early season allocations. However, when NSW Murray general security allocation reaches 30%, payback is required.

It should be noted that some of the BMEWA is spillable commensurate with physical spill or pre-release from Hume Dam. So far this year no spillage of the BMEWA has occurred.

Lake Victoria is re-regulating as much water as possible and is nearing full. However, high tributary inflows in recent weeks continue to create unregulated flow conditions in the Murray, therefore; supplementary access continues to be available in some reaches for NSW Murray water users. Details of when and where supplementary access applies can be found at: waterinsights.waternsw.com.au/

Inflows into the Menindee Lakes System (MLS) continue to accrue, with the current combined storage around 1,515,000 ML (as of 31 August 2021). It is estimated that there is enough upstream flow to effectively fill the MLS in October. With high storage levels in the MLS and upper Murray, Additional Dilution Flow deliveries to South Australia (3,000 ML/day) are now required, in accordance with the Murray Darling Basin Agreement. This additional flow requirement to South Australia will be met from the most efficient source within the Murray system.

2021-22	High Security	General Security	Average Carryover
Murray	97%	30%	43%
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

Murray storage levels (as at 31 August 2021)*

- Dartmouth Dam is 73% full – rising – holding 2,830,000 ML.
- Hume Dam is 94% full – rising – holding 2,840,000 ML.
- Lake Victoria is 95% full – rising – holding 645,000 ML.
- Menindee Lakes System is 87% full – rising – holding 1,515,000 ML.

* The NSW share of this water is approximately 35%, 49%, 32% and 36% for these storages respectively, or 40% in total (averaged across all storages).

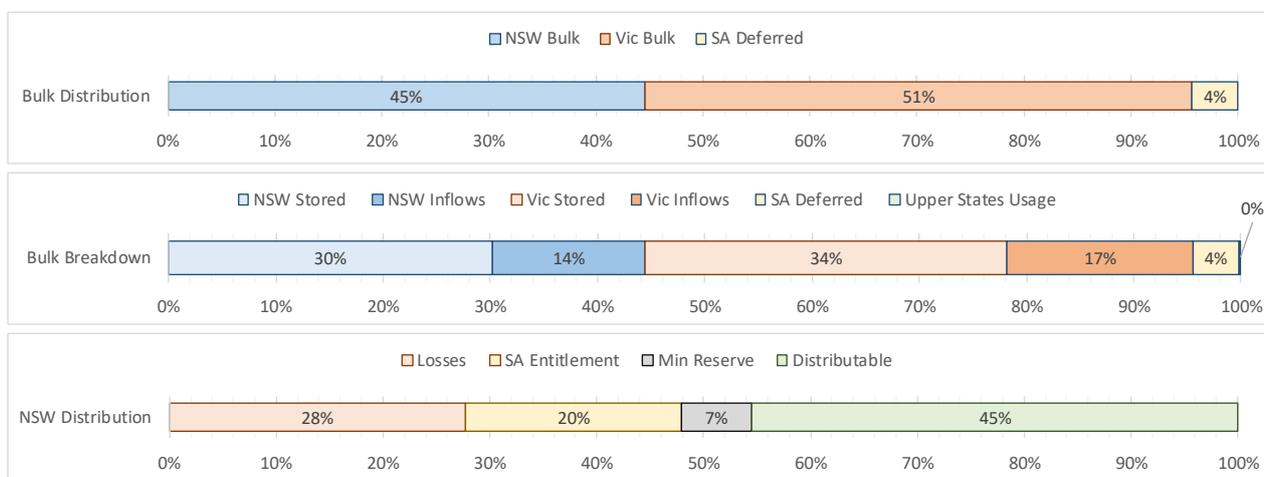
State sharing of the Murray resource

The bulk accounts assessment indicates that 8,040 gigalitres (GL) of total shared Murray resource is available in the extreme dry (99th percentile) case, of which about 3,010 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 share of the regulated resource is 2,210 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 1,935 GL**.

The bulk resource assessed by the Murray Darling Basin Authority (MDBA) includes supplementary and uncontrolled flow diversions in the NSW usage. Therefore, the assessed share of the Murray resource must be reduced by this unregulated use to account for water used from unregulated water sources. The unregulated water usage does not adversely impact regulated allocations. In this assessment, the notional resource of 1,958 GL has been adjusted down to an actual resource of 1,935 GL.

Distribution of Murray Resources



The breakdown of the Murray resources is provided in the graphs above. It is provided on a trial basis to provide NSW Murray water users with more information on the distribution of resources within the Murray regulated system. The breakdown is based on the 99% inflow scenario, which is the scenario used by NSW for its allocation and water sharing framework. It is important to note that other jurisdictions make allocations based on their own water sharing framework and risk appetite. Therefore, this 99% (extreme dry) scenario should not be used to infer allocation announcements by other jurisdictions.

Additional notes for the graphs are provided below.

- **Bulk Distribution Graph** – distribution of bulk resource into NSW’s bulk share, Victorian bulk share and South Australia’s deferred storage. **Of the total resource available in the Murray under the 99% scenario, NSW is entitled to approximately 45% of it.**
- **Bulk Breakdown** – breakdown of distribution of bulk resource, as per the Bulk Distribution Graph, by state and resource source (i.e. stored water vs future inflow). **Of the 45% of the total bulk resource which NSW is entitled to (under the Bulk Distribution Graph), approximately 30% is sourced from stored water and 14% is sourced from future inflows (1% rounding error).**

- Future inflow includes minimum inflows into major storages, expected tributary inflows and un-delivered IVT balance.
- As the distributable resource is comprised of usage to date, usage in NSW and Victoria contributes to the total resource made available to date. Note; other jurisdictions may report on remaining account balances, which does not require the incorporation of usage to date. NSW reports on total water made available to date, which must include water which has been used to date.
- **NSW Distribution** – breakdown of the resource which NSW is entitled to (i.e. the 45% component of the bulk resource under the Bulk Distribution Graph).
 - 28% of the resource NSW is entitled to is required for losses
 - 20% of the resource NSW is entitled to is required to meet commitments to South Australia (dilution and non-dilution) as per the Murray Darling Basin Agreement
 - 7% of the resource NSW is entitled to is required to meet minimum reserve requirements as per the Murray Darling Basin Agreement
 - Leaving **45% of the resource NSW is entitled to for distribution amongst its water users as per the Water Sharing Plan. Distributable resource includes usage to date.**

Climatic outlook

The Bureau of Meteorology's seasonal outlook for September to November indicates that rainfall is likely to be above average across the catchment. Temperatures are likely to be near or warmer than average.

The Bureau's El Niño-Southern Oscillation is neutral. Models indicate that negative Indian Ocean Dipole (IOD) conditions have developed and may persist until summer. Negative IOD conditions increase the chances of above average rainfall in winter-spring.

For further details at: 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) 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 31 August 2021). Water users should monitor the WaterNSW website (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

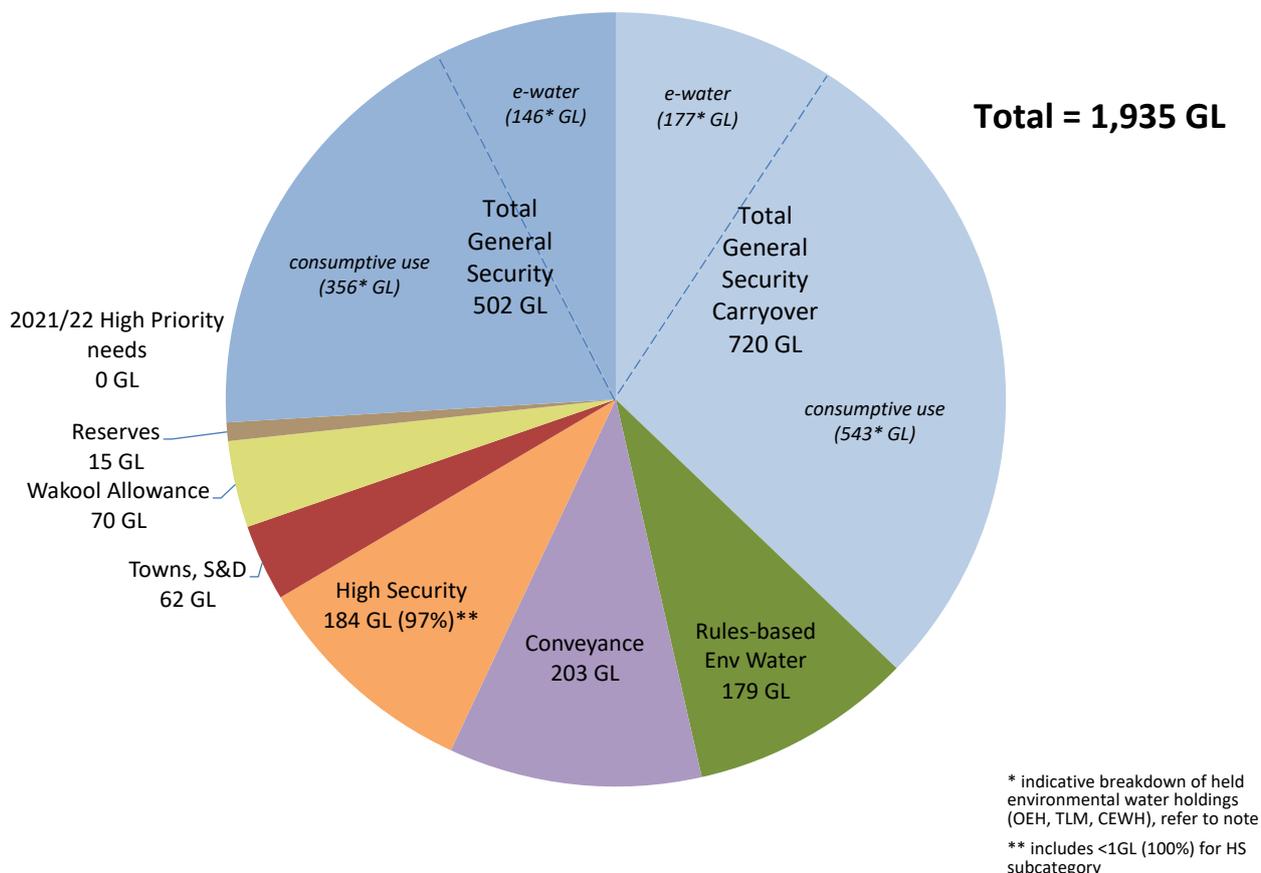
The next water allocation statement will be published on **Wednesday 15 September 2021**. It will be the monthly comprehensive statement, including the likelihood of improvement in general security allocations under various inflow scenarios.

NSW Murray resource assessment data sheet

Resource Distribution* (1 September) for 2021-22	Volume (GL)
Total Available Resource ⁽¹⁾	1,935
less	
Carryover ^{(2), (8)}	720
Rules based Environmental Water ⁽³⁾	179
Towns, Stock, Domestic ⁽⁴⁾	62 (100%)
Announced High Security subcategory ⁽⁴⁾	<1 (100%)
Announced High Security ⁽⁴⁾	184 (97%)
Conveyance ⁽⁵⁾	203 (62%)
Wakool Allowance ⁽⁶⁾	70
Reserves ⁽⁷⁾	15
Announced General Security ⁽⁸⁾	502 (30%)
Year 2 (2022-23) high priority needs ⁽⁹⁾	0

*See notes below

NSW Murray resource distribution 2021-22 – 1 September 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 430 GL. NSW is in Special Accounting with South Australia (SA) as of 1 August 2021. 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) (148 GL – has been partially paid back since GS allocations have reached 30%, borrowed balance is 202 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".

- (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 146 GL of GS, 24 GL of HS, 31 GL of conveyance allocation and 177 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'.

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