

15 October 2021

Corrected version: includes 'Water Balance Diagram' which was inadvertently omitted in the original statement. There is NO change to allocations.

NSW Murray and Lower Darling

Water allocation update

There is a 55% allocation increase to general security entitlements in the NSW Murray regulated river water source. This means general security allocation has reached its full extent, which is 110% of entitlement as per the water sharing plan. Additionally, **high security and conveyance have also received their full allocation.**

All Lower Darling regulated river entitlements, including general security, received their full allocation (100%) on 1 July 2021.

Full allocations in the NSW Murray were achieved on the back of around 185,000 megalitres (ML) of resource improvement, plus additional resource freed by individual accounts reaching their account limits including without-debit take converting to debit take.

Further resources improvements over the remainder of this water year will be used to assure high priority needs for 2022-23 and assist an opening allocation to general security entitlements.

Airspace releases and tributary inflows continue to create unregulated conditions across the regulated Murray system and provide supplementary access. Unregulated flows are also being used to meet Additional Dilution Flow requirements to South Australia, as required by the Murray Darling Basin Agreement. While supplementary access continues to be available in the NSW Murray, general security licence holders can no longer use the without-debit take provisions of their entitlements. Supplementary access details can be found at:

www.watarnsw.com.au/waterinsights/water-insights

The Menindee Lakes System (MLS) has been surcharged with inflows from the northern basins, with the current combined storage holding around 1,975,000 ML (as of 14 October 2021). The MLS can be surcharged to a maximum of around 2,039,000 ML. With inflows continuing to accrue, releases from the MLS are required to maintain storages at a safe level. As a result, airspace releases are being made into the Lower Darling and the Great Darling Anabranch. Updates can be found on the WaterNSW website: waterinsights.watarnsw.com.au/

2021-22	High Security	General Security	Average Carryover
Murray	100%	110% [#]	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.

^{*} Carryover in private accounts can be considered forfeited and replaced by allocation when full allocations are announced.

Murray storage levels (as at 14 October 2021)*

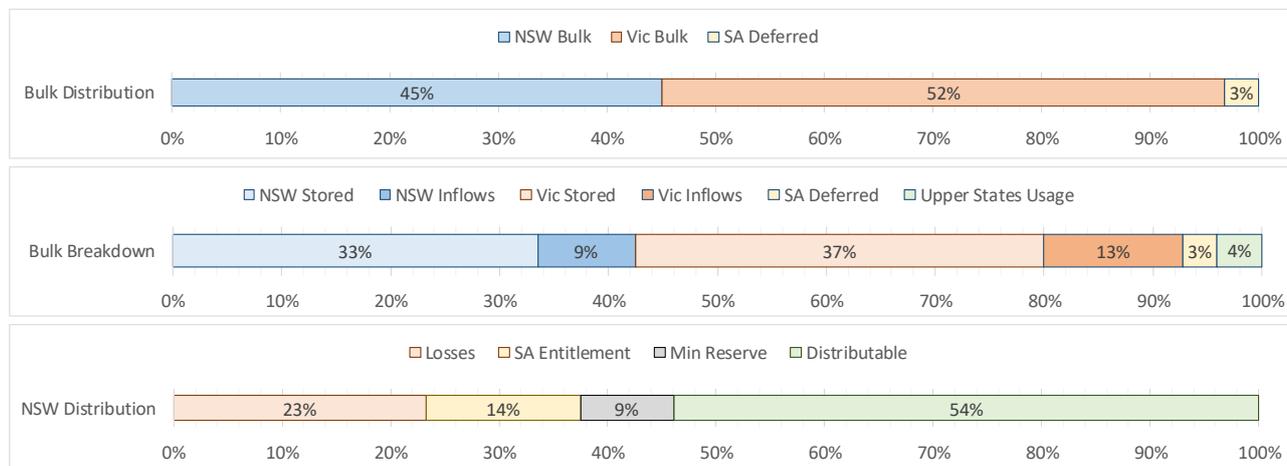
- Dartmouth Dam is 81% full – rising – holding 3,135,000 ML.
- Hume Dam is 97% full – stable – holding 2,920,000 ML.
- Lake Victoria is 90% full – stable – holding 610,000 ML.
- Menindee Lakes System is 114% full – stable – holding 1,975,000 ML.

* The NSW share of this water is approximately 36%, 50%, 42% and 38% for these storages respectively, or 42% in total (averaged across all storages).

State sharing of the Murray resource

The bulk accounts assessment indicates that around 10,680 gigalitres (GL) of total shared Murray resource is available in the extreme dry (99th percentile) case. The NSW share of this resource is approximately 4,850 gigalitres (GL) based on the rules in the Murray-Darling Basin (MDB) Agreement. After removing commitments required under the MDB Agreement, including losses in operating the River Murray System, South Australia’s entitlement flow and the minimum reserve, the assessment results in a volume of Murray resource for NSW to allocate of 2,645 GL. With without-debit usage converting to debit usage and general security accounts spilling after reaching their maximum limit, **the volume of NSW Murray is adjusted up to 2,690 GL.**

Distribution of Murray resources



The breakdown of the Murray resources is provided in the graphs above. It is published 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 allocations and water sharing framework. The NSW government’s acceptable risk, on behalf of all water users including towns and the environment, is given in the water sharing plan. NSW is required to work to the minimum inflow scenario prior to the commencement of the plan (2004). The MDBA’s 99% scenario closely aligns with the minimum inflow pre-2004 scenario. Therefore, NSW distributes the volume provided by the MDBA’s 99% scenario to satisfy the water sharing plan.

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 33% is sourced from stored water and 9% is sourced from future inflows, with the remainder coming from usage to date.**
 - Future inflow includes minimum inflows into major storages, expected tributary inflows and undelivered 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).
 - 23% of the resource NSW is entitled to is required for losses.
 - 14% 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.
 - 9% of the resource NSW is entitled to is required to meet minimum reserve requirements as per the Murray Darling Basin Agreement.
 - Leaving **54% 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 November 2021 to January 2022 indicates that rainfall is likely to be above average across the catchment. Daytime temperatures are likely to be near or below average, while overnight temperatures are likely to be warmer than average.

The Bureau’s El Niño-Southern Oscillation is neutral, however; the Bureau has put out an ALERT status for La Niña in the coming months. The negative Indian Ocean Dipole event is on the threshold of returning to neutral. A negative IOD increases the chances of above-average spring rainfall for much of southern and eastern Australia.

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 14 October 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 announcements

As all entitlements in the NSW Murray have reached their full allocation, publication of regular statements will cease.

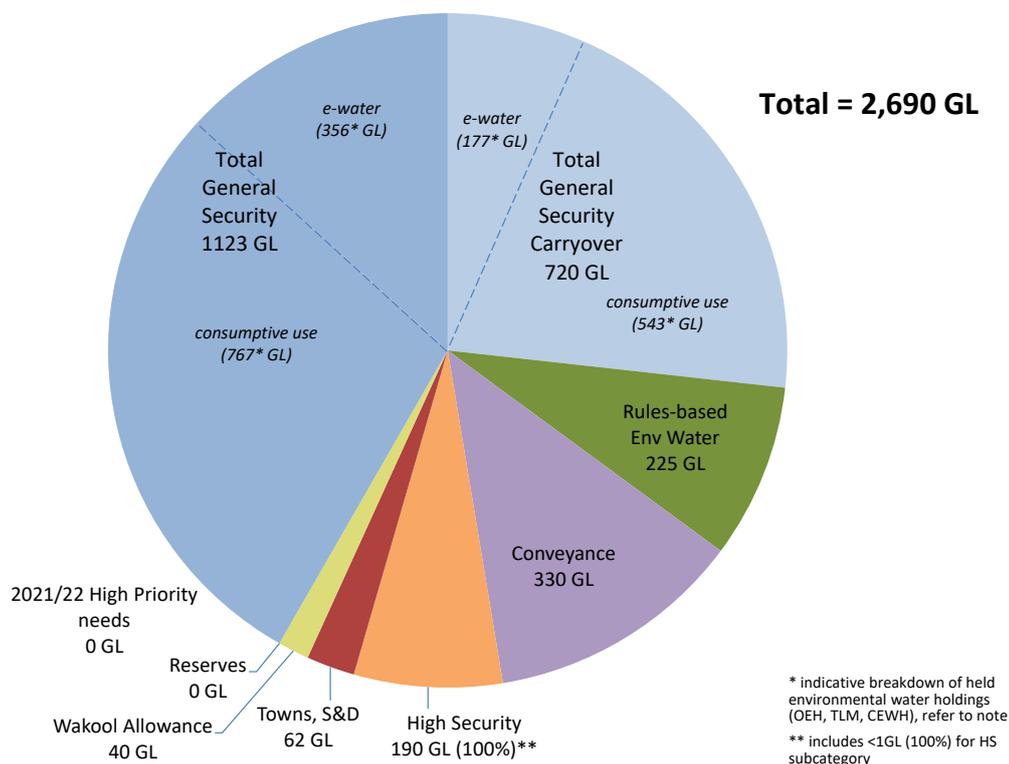
From **Tuesday 15 March 2022**, monthly statements will commence to communicate the potential water availability on 1 July 2022 for the 2022-23 water year. This should help water users with their end of year water management decisions.

NSW Murray resource assessment data sheet

Resource Distribution* (15 October) for 2021-22	Volume (GL)
Total Available Resource ⁽¹⁾	2,690
<i>less</i>	
Carryover ^{(2), (8)}	720
Rules based Environmental Water ⁽³⁾	225
Towns, Stock, Domestic ⁽⁴⁾	62 (100%)
Announced High Security subcategory ⁽⁴⁾	<1 (100%)
Announced High Security ⁽⁴⁾	190 (100%)
Conveyance ⁽⁵⁾	330 (100%)
Wakool Allowance ⁽⁶⁾	40
Reserves ⁽⁷⁾	0
Announced General Security ⁽⁸⁾	1,123 (67%)
Year 2 (2022-23) high priority needs ⁽⁹⁾	0

*See notes below

NSW Murray resource distribution 2021-22 – 15 October 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 530 GL. NSW is not in Special Accounting with South Australia (SA) as of 15 October 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) (currently 0 GL), Barmah-Millewa Allowance (B-MA) (200 GL – fully paid back). 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 MAA, 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 licences 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. With full allocations to GS entitlements being reached this month, 100% of entitlement has been allocated to High Security licences. 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

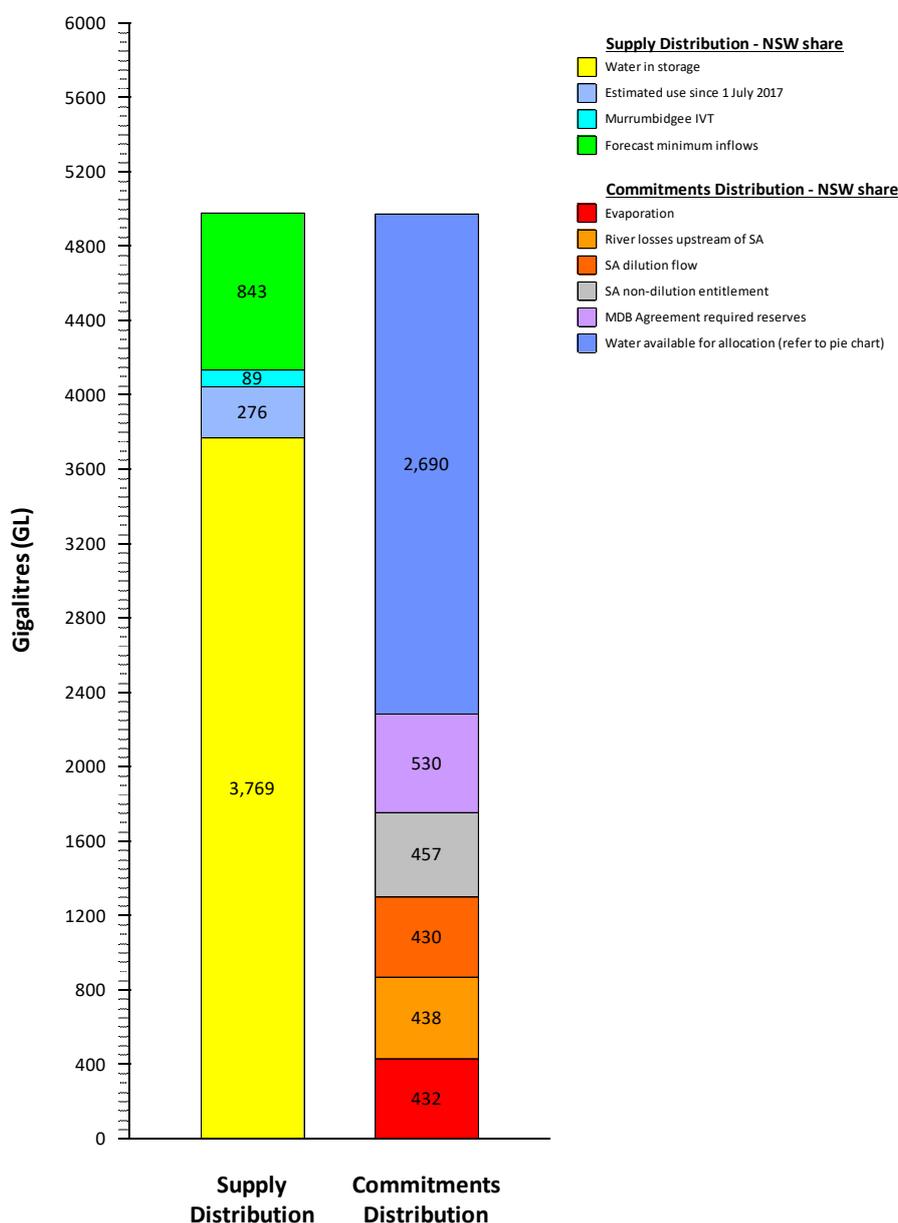
Water Allocation Statement

Water availability and allocation update



- 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 is required, currently at 40 GL due to current volume of resource in the system.
 - (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 356 GL of GS, 177 GL of GS carryover, 25 GL of HS, 50 GL of conveyance allocation. 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 October 2021



Water balance notes:

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.

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