

15 July 2022

# NSW Murray and Lower Darling

## Water allocation update

There is a 6% 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 49% of entitlement for this water year. All **Lower Darling** regulated river entitlements, including **general security**, received their maximum allocation (100%) for this water year on 1 July 2022.

The resource improvement is from a combination of higher than minimum inflows and a reduced carryover liability. Carryover volumes are still estimates, while water user accounts are reconciled and closed for the 2021/22 water year. Carryover numbers will be finalised in August.

Due to prevailing wet conditions, unregulated flows have continued into this water year and water users are able to access supplementary and uncontrolled flow provisions, subject to their licence conditions and approved periods of access. Supplementary access details can be found at: [waterinsights.waternsw.com.au](http://waterinsights.waternsw.com.au).

Unregulated flows are also being used to meet Additional Dilution Flow requirements to South Australia, as required by the Murray Darling Basin Agreement while Menindee storage remains elevated.

The Barmah Millewa Environmental Water Allowance (BMEWA) account is fully available as of 1 July 2022. Therefore, further resource improvements will be used for general security allocations, until full general security allocations are achieved.

Information on **Intervalley Trade (IVT) balance spill** is provided below in this statement. Further details will be provided in the 15 August 2022 statement.

The Menindee Lakes System (MLS) has been surcharged due to significant inflows from the northern basins, with the current combined storage holding around 1,925,000 megalitres (ML). The MLS can be surcharged to a maximum of around 2,039,000 ML.

2022-23	High Security	General Security	Average Carryover
Murray	97%	49%	46%^
Lower Darling	100%	100%#	7%*^

# 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.

^ Carryover is based on current best estimates while water user accounts for 2021/22 are reconciled. Final carryover numbers will be confirmed in August. Nonetheless, major changes to these estimates are not expected.

## Murray storage levels (as at 14 July 2022)\*

- Dartmouth Dam is 95% full – stable – holding 3,670,000 ML.

- Hume Dam is 94% full – stable – holding 2,815,000 ML.
- Lake Victoria is 51% full – falling – holding 345,000 ML.
- Menindee Lakes System is 111% full – stable – holding 1,925,000 ML.

\* The NSW share of this water is approximately 37%, 50%, 37% and 37% for these storages respectively, or 41% in total (averaged across all storages).

## Sharing of the Murray resource

The bulk accounts assessment indicates that around 11,900 gigalitres (GL) of total shared Murray resource is available in the extreme dry (99th percentile) case. The NSW share of this resource is approximately 5,380 GL, based on the rules in the Murray-Darling Basin (MDB) Agreement. After removing commitments required under the MDB Agreement, including anticipated 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 2,410 GL.

## Distribution of Murray resources\*



\*No material upper states usage recorded this early in the water year.

The breakdown of the Murray resources is provided in the graphs above. 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 30% is sourced from stored water and 14% is sourced from future inflows, with the remainder coming from usage to date (currently negligible).**
  - 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).
  - 31% of the resource NSW is entitled to is required for losses.
  - 16% 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.
  - 8% of the resource NSW is entitled to is required to meet minimum reserve requirements, as per the Murray Darling Basin Agreement.
  - **Therefore, 45% of the resource NSW is entitled to for distribution amongst its water users is distributed to entitlement holders as per the water sharing plan.**

## Climatic outlook

The Bureau of Meteorology’s seasonal outlook for August to October indicates that rainfall is likely to be above average across the catchment. Day time temperatures are likely to be around average for majority of the catchment, while overnight temperatures are likely to be above average across the catchment.

The Bureau’s El Niño-Southern Oscillation (ENSO) outlook is on La Niña WATCH, meaning ENSO is currently neutral, but may develop into La Niña conditions. Forecasts indicate that a negative Indian Ocean Dipole (IOD) will develop in the coming months and persist for much of this calendar year. A negative IOD increases the chances of above average winter–spring rainfall for much of Australia.

Further details at: [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 open and will likely remain open until the Menindee Lakes system next falls below 480 GL. Trade within the Lower Darling regulated river water source remains open.

Trade **out** of the Murrumbidgee is **closed**, while trade **into** the Murrumbidgee Valley is **open** (as of 14 July 2022). 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. The normal operating range for the Murrumbidgee IVT account is between 0 GL and 100 GL.

## IVT in 2022/23

When water physically spills from Murrumbidgee storages (including pre-releases for airspace operations), a decision must be made to spill or retain any IVT balance. The NSW Murray total general security water availability is currently 95% (comprised of 49% allocation and 46% carryover), which is significantly higher than the Murrumbidgee total general security water availability of 66% (comprised of 38% allocation and 28% carryover). **Therefore, the IVT balance will be spilt in August to help boost Murrumbidgee allocations.**

**The date and volume of IVT spill will be provided in the 15 August 2022 statement**, and water users and markets will be given at least 10 days notice before the IVT account is adjusted. Adjustment of the IVT account will likely lead to a change in trade status and water users should monitor the WaterNSW website ([www.waternsw.com.au](http://www.waternsw.com.au)) for information on the trade status. Further information will be provided in the 15 August 2022 statement.

## Next announcement

The next water allocation statement will be published on **Monday 1 August 2022**. 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 15 August 2022.

**Please note: commencing with the Monday 1 August 2022 statement, all future NSW Murray statements will be published online at 2:30pm on the day of the publication.**

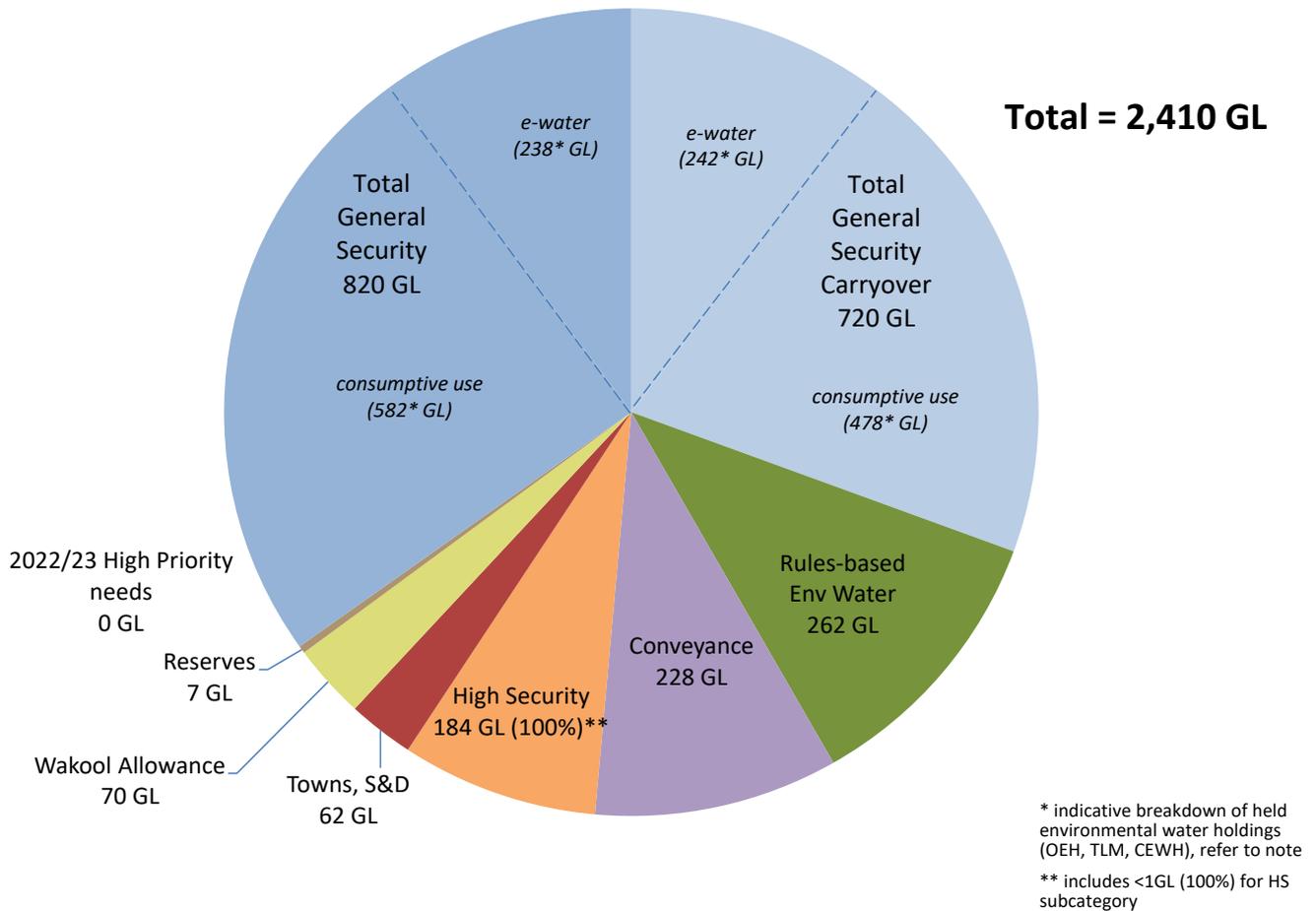
## NSW Murray resource assessment data sheet

Resource Distribution* (15 July) for 2022-23	Volume (GL)
Total Available Resource <sup>(1)</sup>	2,410
<i>less</i>	
Carryover <sup>(2), (8)</sup>	777
Rules based Environmental Water <sup>(3)</sup>	262
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>	228 (69%)

Wakool Allowance <sup>(6)</sup>	70
Reserves <sup>(7)</sup>	7
Announced General Security <sup>(8)</sup>	820 (49%)
Year 2 (2023-24) high priority needs <sup>(9)</sup>	0

\*See notes below

### NSW Murray resource distribution 2022-23 – 15 July 2022



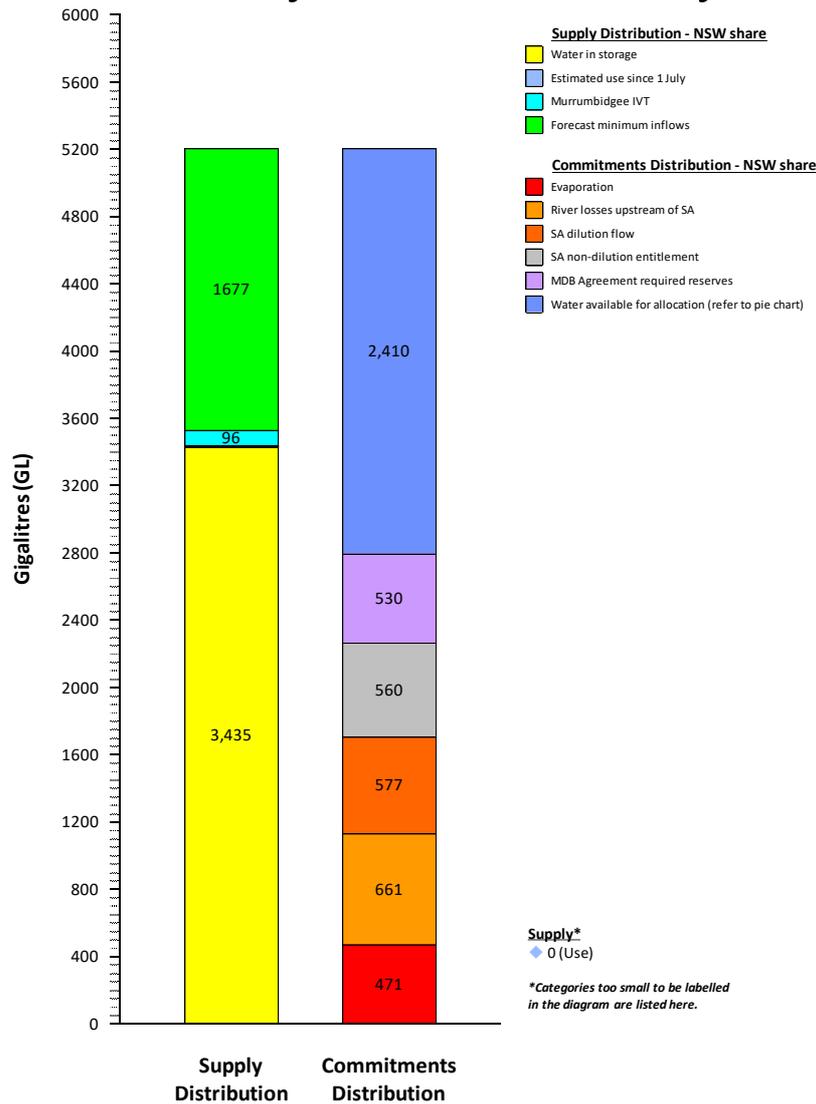
#### Data sheet notes

- (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 (2022-23) is estimated to be about 351 GL. NSW is not in Special Accounting with South Australia (SA) as of 15 July 2022. 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 6 GL), Barmah-Millewa Allowance (B-MA) (200 GL – fully available). It also includes River Murray Increased Flows (RMIF) in Hume, accrued as part of the Snowy Water Initiative (currently 56 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. 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 is required.
- (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 238 GL of GS, 242 GL of GS carryover, 24 GL of HS, 34 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 and Environment, The Living Murray and the Commonwealth Environmental Water Holder. Details on environmental holdings can be found on individual agency websites.
- (9) 2023-2024 high priority needs on 1 July 2023 - volume set aside to cover high priority needs on 1 July 2023, for ‘Year 2’.

### NSW Murray water balance – 15 July 2022



#### 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 2021 (GL)	Mid July 2022 (GL)	Comments
NSW Share of total resources	1,350	2,410	Improved conditions have enabled a high opening resource.
less			
Carryover	650	777	Higher carryover in 2022/23 due to higher allocations in 2021/22.
Environmental	31	62	56 GL of RMIF in 2022/23.
Towns, Stock, Domestic	62	62	
Conveyance	178	228	Commensurate with general security allocations.
Wakool Loss	70	70	
High Security	184	184	
General Security	167	720	49% allocation in 2022/23 vs 10% in 2021/22.
Reserves	3	7	

### 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 user behaviour, water management decisions and other operational matters. 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 2022	1 Nov 2022
99 chances in 100 (extreme) (99%)	49%	49%
9 chances in 10 (very dry) (90%)	50%	63%
3 chances in 4 (dry) (75%)	55%	110%
1 chance in 2 (mean) (50%)	59%	110%

1 chance in 4 (wet)	(25%)	110%	110%
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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 46% general security carryover.

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

Note 5: Physical spills limit resource improvements as inflows are unable to be captured. Actual resource improvements will be highly dependent on the pattern of inflows and demands experienced over the coming months. With storages full, and future inflows at high risk of partial spill, there is high uncertainty in the numbers provided above.

Note 6: In the NSW Murray valley, general security (GS) account limit is 110% and carryover limit is 50%. Once allocations reach 60%, accounts start spilling, which aides in rapid allocation increases, resulting in 110% GS announcement.

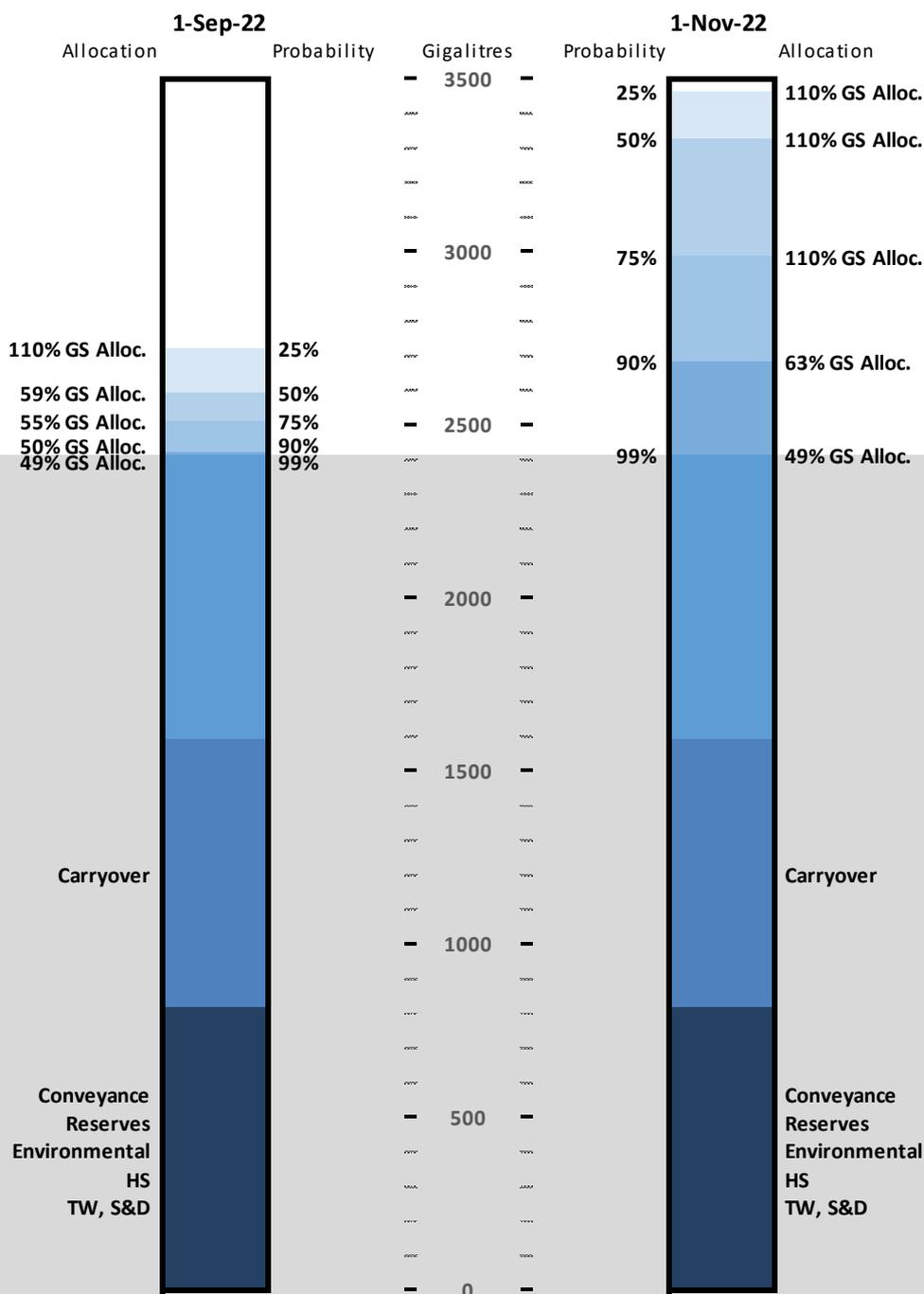
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## NSW Murray Valley Outlook

as at 15 July 2022



as at 15 Jul 2022

This figure provides indicative improvements in general security allocations for two forecast snapshots, 1 September 2022 and 1 November 2022. The allocation improvements are indicative only, and do not constitute guaranteed allocations. As of 15 July 2022, General Security allocation is at 49 per cent, and under 99% inflow conditions, will remain the same for the rest of the water year.