

2 December 2019

NSW Murray and Lower Darling

Water allocation update

General security allocations in the NSW Murray and Lower Darling regulated river water sources **remain unchanged**.

Rainfall continues to trend well below average with inflows tracking near assumed minimums. Extreme dry catchment conditions and soil moisture deficits are inhibiting runoff response from periodic rainfall events. Soaking rainfall is required to improve the catchment runoff response and provide water for allocation.

The total improvement to the NSW resource from slightly better than assumed inflows is 15,000 megalitres (ML). This water is building security for next year (10,000 ML) and reducing the current year's shortfall to Conveyance entitlement holders (5,000 ML).

Statistically, in the Murray, good inflows are unlikely now until next winter/spring; however, in reality individual storms can bring heavy rainfall and good inflows at any time. Water users are encouraged to plan for the worst and hope for the best. In the meantime, conditions will continue to be closely monitored, ensuring that any water that does become available is promptly allocated in accordance with statutory water sharing plans.

The Menindee Lakes system remains critical; below 1 per cent full, holding just 9,700 ML. The widespread cease-to-flow conditions pose significant challenges and risks.

2019-20	High Security	General Security	Average Carryover	Drought Stage	
Murray	97%	0%	18%		Stage 2
Lower Darling	30%	0%	19%		Stage 4

Drought stage

The NSW Murray regulated river water source is in Stage 2 drought criticality. Drought operational planning has commenced so that contingency measures can be readied to protect critical water supplies if conditions deteriorate beyond this year. A Critical Water Advisory Panel has been formed for southern valleys to provide advice on drought management options and will convene as conditions necessitate.

The Lower Darling regulated river water source is at maximum Stage 4 drought criticality, and there are no foreseeable inflows. Restrictions limit water usage to critical needs.

Isolated heavy rainfall in proximity to Bourke in October briefly returned some flow to the Darling and Warrego Rivers. However, despite the temporary water restrictions, the peak flows below Bourke of nearly 1,500 ML/day in the first week of November, plus the Warrego flows, will likely provide no benefit to Menindee due to the natural attenuation of flows over hundreds of kilometres of dry river beds and the lack of follow-up rainfall and flows.

The temporary water restrictions are likely to remain until the resource situation improves. Follow this link for further details on the reasons for the temporary restriction:

www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions

More information on NSW's Extreme Events Policy and related drought stages can be found at:

www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/extreme-events

Storage levels (as at 27 November 2019)*

- Dartmouth Dam is 54 per cent full – falling – holding 2,085,000 ML.
- Hume Dam is 34 per cent full – falling – holding 1,030,000 ML.
- Lake Victoria is 76 per cent full – steady – holding 515,000 ML.

* NSW share of this water is approximately 27%, 49% and 46% for these storages respectively, or 36% in total.

State sharing of the Murray resource

The forecast end of November accounts indicate that 4,090 gigalitres (GL) of total shared Murray resource is available in the extreme dry (99th percentile) case, of which about 1,590 GL is needed to run the system. The NSW portion of this shared resource is 950 GL based on rules in the Murray-Darling Basin Agreement. Following adjustments including trade, tributary inflows and usage to date, the assessment results in 975 GL of water being available for NSW to allocate.

Climatic outlook

The Bureau of Meteorology seasonal outlook for December 2019 to February 2020 indicates that the Murray catchment is likely to experience hotter and drier than average conditions.

The Bureau indicates that the El Niño-Southern Oscillation (ENSO) remains neutral. Modelling suggests that the ENSO is likely to remain neutral over the remainder of 2019 and into 2020. Positive Indian Ocean Dipole (IOD) conditions are forecast well into summer, suppressing likely rainfall and increasing temperatures.

For further details: 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. The trade restriction helps to address the physical constraint at the choke and protect existing downstream entitlement holders from an increased risk of delivery shortfall. Water users are encouraged 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.

The Menindee Lakes system is effectively empty. Temporary trade with the Murray is closed and typically remains closed until the system recovers to hold more than 640 GL of water and becomes part of the shared Murray system. Trade within the Lower Darling water source is allowed, although there is no regulated water delivery.

Trade **into** the Murrumbidgee Valley is open; however, trade **out** is closed. Water users should monitor the WaterNSW website (www.waternsw.com.au) for daily information about the IVT account balance and status of trade. Trade **out** of the valley will open again when the IVT balance falls to 85 GL but will then close again should it rise to 100 GL.

Next announcement

The next water allocation statement for the NSW Murray and Lower Darling valleys will be on **Monday 16 December 2019**. This statement will be the last for this water year that includes updated probability analysis (rocket diagrams) showing likely improvement in water availability

under different inflow scenarios. From mid-March 2020 onward, the forecasts will focus on the potential starting allocations for 1 July 2020 and the water for next (2020-21) water year.

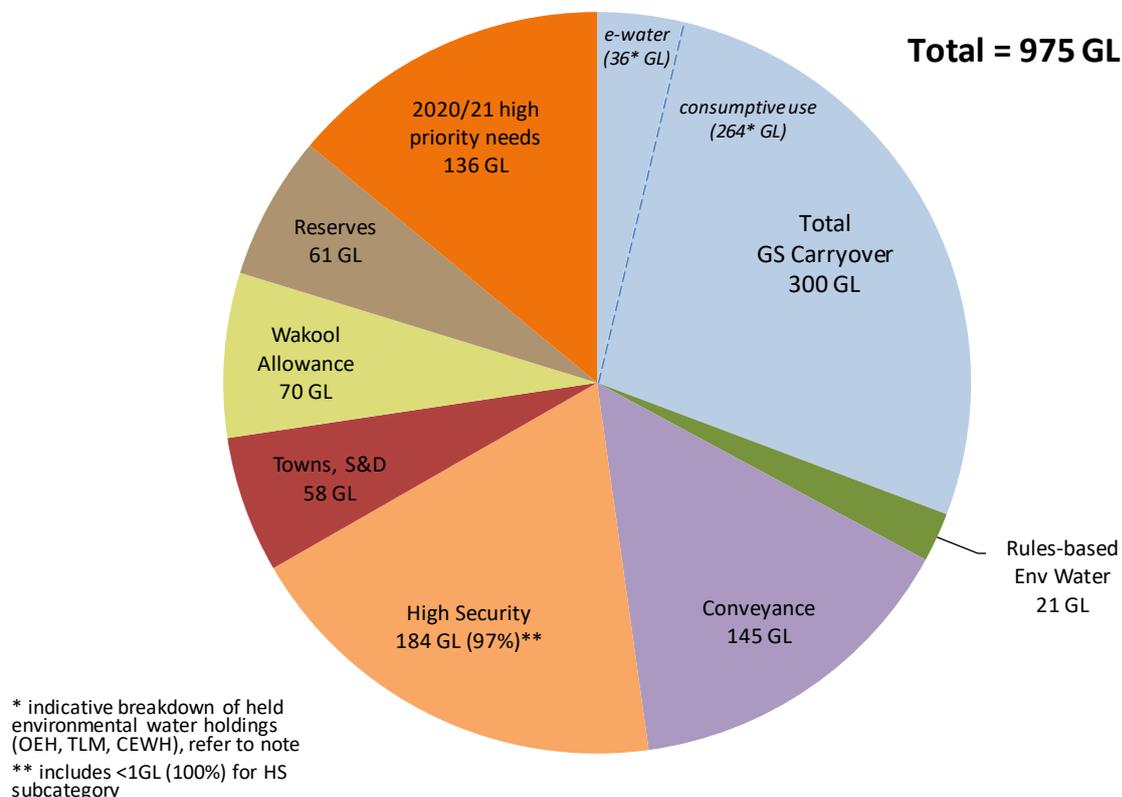
No statement will be published on 2 January 2020, with fortnightly statements resuming on 15 January 2020. However, if significant changes in weather patterns or water availability are observed, interim allocation announcements will be provided.

NSW Murray resource assessment data sheet

Resource Distribution (2 December) for 2019-20	Volume (GL)
Total Available Resource ⁽¹⁾	975
less	
Carryover ^{(2), (8)}	300
Rules based Environmental Water ⁽³⁾	21
Towns, Stock, Domestic ⁽⁴⁾	58 (100%)
Announced High Security subcategory ⁽⁴⁾	<1 (100%)
Announced High Security ⁽⁴⁾	184 (97%)
Conveyance ⁽⁵⁾	145 (44%)
Wakool Allowance ⁽⁶⁾	70
Reserves ⁽⁷⁾	61
Announced General Security ⁽⁸⁾	0 (0%)
2020-21 high priority needs ⁽⁹⁾	136

*See notes below.

NSW Murray resource distribution 2019-20 – 2 December 2019



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 (2019-20) is estimated to be about 390GL. NSW is in Special Accounting with South Australia (SA), details of which can be found in the MDB Agreement clauses 123-129. Special accounting is triggered when forecasts indicate that NSW is unable to meet the required reserve of 1,250GL by the end of the water year to supply SA with its entitlement in the following year.
- (2) Carryover – NSW Murray general security water users can carryover a maximum account balance of 50 per cent of their entitlement into the following water year. The account limit is 110 per cent 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 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) (about 282GL – currently 100% borrowed). It also includes River Murray Increased Flows (RMIF) in Hume, accrued as part of the Snowy Water Initiative (currently about 15GL). 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 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.
- (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 0GL of GS, 24GL of HS, 22GL of conveyance allocation and 36GL of GS carryover. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Office of Environment and Heritage (OEH), The Living Murray (TLM) and the Commonwealth Environmental Water Holder (CEWH). Details on environmental holdings can be found on individual agency websites.
- (9) 2020-2021 high priority needs on 1 July 2020 - volume set aside to cover high priority needs on 1 July 2020, for 'Year 2', including potential carryover

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