Water availability and allocation update



17 August 2020

Murrumbidgee Valley

Water allocation update

Allocations to **general security entitlements have increased by 16 per cent** in the Murrumbidgee regulated river water source. They now total 32 per cent for this water-year.

Wet conditions in recent weeks have boosted resources in the valley by about 300,000 megalitres (ML) since the last assessment to the end of July. The improvement has been allocated to general security entitlements, with a commensurate increase in Conveyance entitlements, in accordance with the water sharing plan. Supplementary access conditions are again available in upper Murrumbidgee reaches and will progressively move downstream.

As the year progresses, inflows will continue to be allocated to general security entitlements without putting at risk high priority commitments for 2021-22.

2020-21	High Security	General Security	Average Carryover	Drought Stage
Murrumbidgee	95%	32%	18%	Stage 1

Drought stage

The Murrumbidgee regulated river water source is in Stage 1 drought criticality, meaning all allocated water can be delivered under normal regulated river operations. Despite promising signs and improving water availability, caution about future water availability is warranted. The resource situation continues to be monitored closely to ensure that high priority needs remain secure.

Further information on critical valleys in drought can be found at: www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/drought-update/criticalvalleys-in-drought

Storage levels (as at 13 August 2020)

- Blowering Dam is 68 per cent full rising holding 1,118,000 ML.
- Burrinjuck Dam is 71 per cent full rising holding 729,000 ML.

Climatic outlook

The Bureau of Meteorology's seasonal outlook for September to November indicates that rainfall conditions are likely to be wetter than average across the catchment. Daytime temperatures are likely to be average or cooler, while overnight temperatures are likely to be warmer than average.

The Bureau indicates that the El Niño-Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD) are neutral. The Bureau has issued a La Niña WATCH alert, with some models indicating that La Niña conditions may develop over spring. There is also a possibility of negative IOD

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conditions developing over spring. La Niña and negative IOD conditions typically increase the probability of above average rainfall during spring.

For further details: www.bom.gov.au/climate/outlooks/#/overview/summary

Trade

Trade **out** of the Murrumbidgee Valley is **closed** with an IVT balance of 99.9 GL (as of 13 August 2020). Trade **into** the Murrumbidgee Valley is **open**. Water users should monitor the WaterNSW website (www.waternsw.com.au) for daily information about the IVT account balance and the status of trade.

Next announcement

The next water allocation statement will be published on **Tuesday 1 September 2020**. It will be a short statement, updating any improvements in resource and allocations.

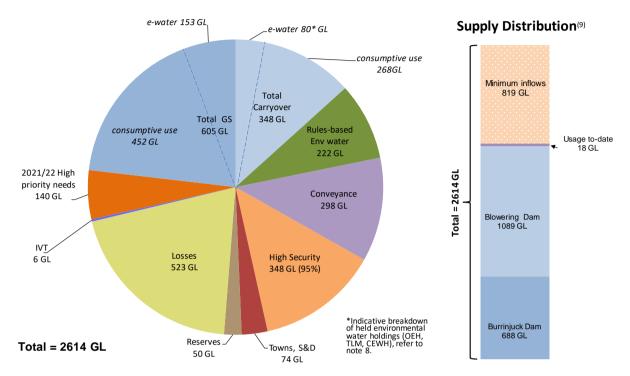
The next comprehensive statement, including the likely improvement in general security allocations under various inflow scenarios, will be published on Tuesday 15 September 2020.

Murrumbidgee resource assessment data sheet

	Resource Distribution* (17 August) for 2020-21	Volume (GL)	Volume (GL)
Total Available Resource ⁽¹⁾			2,614
less			
	Carryover ⁽⁸⁾	348	
	Rules based Environmental Water ⁽²⁾	222	
	Towns, Stock, Domestic (100%)	74	
	Reserves ⁽³⁾	50	
	Conveyance ⁽⁴⁾	298	
	Announced High Security (95%)	348	
	Losses (transmission, evaporation, operational) $^{(5)}$	523	
	Murrumbidgee IVT account (carryover on 1 July) ⁽⁶⁾	6	
	Announced General Security (32%) ⁽⁸⁾	605	
	Year 2 (2021-22) high priority needs ⁽⁷⁾	140	

*See notes below.





Murrumbidgee resource distribution 2020-21 – 17 August 2020

Data sheet notes

- Total available resource total active storage volume (Blowering & Burrinjuck Dams) at the day of assessment plus any usable flows in transit plus minimum inflows for 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 net Jounama Release for this year (2020-21) is estimated to be about 687 GL (includes montane release).
- 2) Rules-based environmental water water required to be set aside under water sharing plans to provide for riverine environments. Includes end-of-system flow requirements (currently 178 GL) and environmental water allowances (EWA1 = 0 GL, EWA2 = 43 GL, EWA3 = 0 GL). Excludes 'licence-based' environmental water also known as held environmental water (HEW). This total volume typically reduces as water is used during the year.
- Reserves required primarily under statutory plans, and mainly used for emergency purposes and critical needs. Includes 25GL per dam as an operational reserve, and Provisional Storage Volumes (PSV1 = nil, PSV2 = nil).
- 4) 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 plans and is a function of high and general security allocations. Conveyance licences in the Murrumbidgee valley can also carryover 30% of their entitlement. Current carryover on conveyance entitlements in the valley is about 5 GL.
- 5) Losses the best estimate of the volume required to run the river under dry conditions to meet demands for the remainder of the water year. This includes storage evaporation, transmission losses and operational loss. This estimate is updated monthly.
- IVT account carryover value into 2020-21. Does not reflect the current IVT balance.
 2021-2022 high priority needs on 1 July 2021 volume set aside to cover high priority needs on 1 July 2021, for 'Year 2', including potential carryover. Any late season inflows are also included in this volume.
- 8) Held environmental water (HEW) licenced 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 the total credited to accounts (not usage) and is estimated to be 153 GL of GS, 15 GL of HS, 56 GL of conveyance allocation and 80 GL 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 e-water holdings can be found on individual agency websites.
- 9) Supply Distribution the distribution of supply includes volumes at the time of the assessment for the following categories: active volumes in the dams, indicative usage to-date (may be estimates prior to reconciliation with hydrographic updates) and assumed minimum future inflows (includes Snowy Hydro's guaranteed inflows for the water year, and late season inflows).



Water availability outlook for 2020-21

Murrumbidgee Resource Assessment - Comparison with this time last year

Item		Mid Aug 2020 (GL)	Mid Aug 2019 (GL)	Comments
	Burrinjuck	691	325	With wet weather, inflows have increased
Storage Volume (GL)	Blowering	1,113	815	Increased tributary inflow & Snowy releases
	Total	1,804	1,140	Overall, 58% higher storage volume compared to last year
Losses (transmission, evaporation, operations)*		523	498	Increased budget, more water to deliver
1 July IVT carryover balance		-6	24	
GS Available		32%	3%	Increased water availability
Average GS Carryover		18%	8%	Much higher this year

* Includes assumed loss from downstream of storages along the entire river length.

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).

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, as it projects many months ahead.

Forecast General Security allocation (per cent)

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

Repeat of historical inflow conditions	1 Oct 2020	1 Feb 2021
99 chances in 100 (extreme) (99%)	32	32
9 chances in 10 (very dry) (90%)	32	32
3 chances in 4 (dry) (75%)	34	36
1 chance in 2 (median) (50%)	38	45

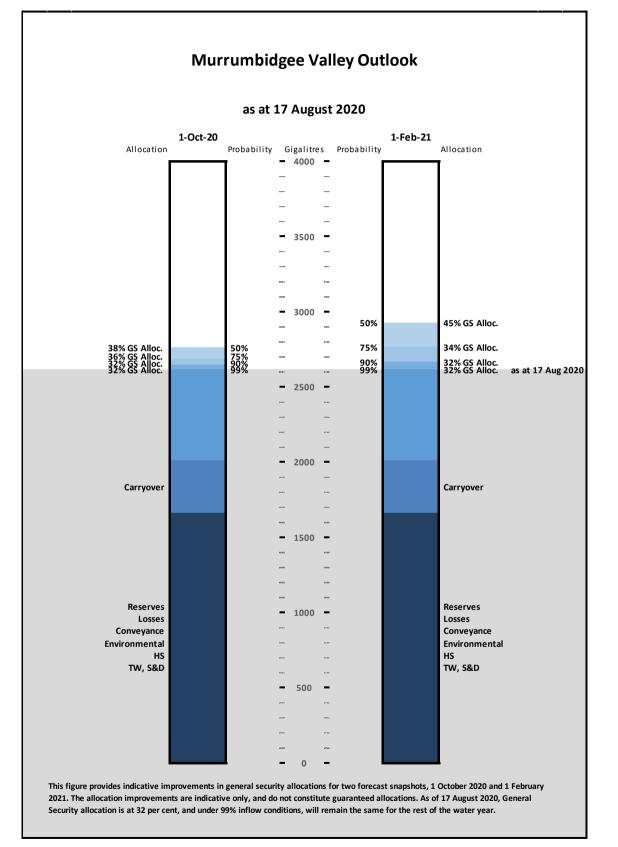
Note 1: Estimated values indicative only, not guaranteed and subject to change based on actual events unfolding.

Note 2: Storage behaviour modelling using all years and general security carryover of 18%.

Note 3: Currently tracking about 70th percentile in the last 2 months (July to August).

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