Water availability and allocation update



15 October 2020

Murrumbidgee Valley

Water allocation update

Murrumbidgee regulated river water source allocation to **general security entitlements has increased by 6%.** This brings the total allocation this year to 54%.

Rainfall to date in October has been below average to average in the Murrumbidgee catchments, resulting in a modest resource improvement since the last assessment. This improvement has been mostly allocated to general security licences, with a commensurate allocation to Conveyance entitlements, in accordance with the water sharing plan.

Some modest improvement in Snowy Tumut resources in October appear likey to materialise and, once notified, will be reflected in the next water allocation statement.

The focus to date has been to safely allocate as much water as possible early, to allow water users to plan for maximum production. However, as we enter the southern dry season (based on historical records), attention will soon need to shift more to meeting high priority needs in 2021-22. Nevertheless, the recent declaration of La Niña conditions by the Bureau of Meteorology augurs well for likely wetter conditions into summer and improved water availability.

2020-21	High Security	General Security	Average Carryover	Drought Stage
Murrumbidgee	95%	54%	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. 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/critical-valleys-in-drought

Storage levels (as at 14 October 2020)

- Blowering Dam is 82% full rising holding 1,342,000 ML.
- Burrinjuck Dam is 79% full steady holding 818,000 ML.

Climatic outlook

The Bureau of Meteorology's seasonal outlook for November 2020 to January 2021 indicates likely wetter than average conditions across the catchment. Daytime temperatures are likely to be about average, while overnight temperatures are likely to be warmer than average.

The Bureau has declared La Niña conditions, with models indicating that La Niña conditions are likely to persist until at least early 2021. Indian Ocean Dipole (IOD) conditions are tracking neutral,





with some models indicating the potential of negative IOD conditions for the remainder of spring. La Niña and negative IOD conditions typically increase the probability of above average rainfall in spring.

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

Trade

The normal operating range for the Murrumbidgee IVT account is between 0 GL and 100 GL. Trade **out** of the Murrumbidgee Valley is **closed** (as of 14 October 2020) with the IVT balance at its upper limit. Trade **into** the Murrumbidgee Valley is **open**. Water users should check 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 **Monday 2 November 2020**. It will be a short statement, updating any improvements in resource and allocations.

The next comprehensive statement will be published on Monday 16 November 2020.

Murrumbidgee resource assessment data sheet

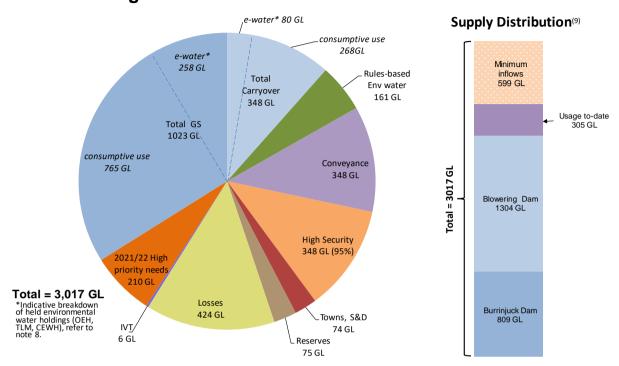
Resource Distribution* (15 October) for 2020-21	Volume (GL)
Total Available Resource (1)	3,017
less	
Carryover (8)	348
Rules based Environmental Water (2)	161
Towns, Stock, Domestic (100%)	74
Reserves (3)	75
Conveyance (4)	348
Announced High Security (95%)	348
Losses (transmission, evaporation, operational) (5)	424
Murrumbidgee IVT account (carryover on 1 July) (6)	6
Announced General Security (54%) (8)	1023
Year 2 (2021-22) high priority needs (7)	210

^{*}See notes below





Murrumbidgee resource distribution 2020-21 - 15 October 2020



Data sheet notes

- 1) 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 releases to date for this water year (2020-21) is estimated to be about 360 GL (includes montane releases).
- 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 106 GL) and environmental water allowances (EWA1 = 50 GL, EWA2 = 6 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.
- 3) Reserves required primarily under statutory plans, and mainly used for emergency purposes and critical needs. Includes 25 GL per dam as an operational reserve, and Provisional Storage Volumes (PSV1 = 25 GL, 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.
- 6) IVT account carryover value into 2020-21. Does not reflect the current IVT balance.
- 7) 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 258 GL of GS, 15 GL of HS, 68 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).





Murrumbidgee Resource Assessment - Comparison with this time last year

Item		Mid Oct 2019 (GL)	Mid Oct 2020 (GL)	Comments
Storage Volume (GL)	Burrinjuck	344	809	Improved inflow conditions
	Blowering	922	1304	Improved inflow conditions
	Total	1,266	2,113	67% higher storage volume compared to last year
Losses (transmission, evaporation, operations) *		430	424	Similar
1 July IVT carryover balance		24	6	Reflects market trade
GS Available		6%	54%	Improved resources in 2020/21
Average GS Carryover		8%	18%	Higher Carryover

^{*} 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.

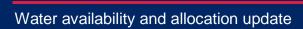
Forecast general security allocation (%)

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

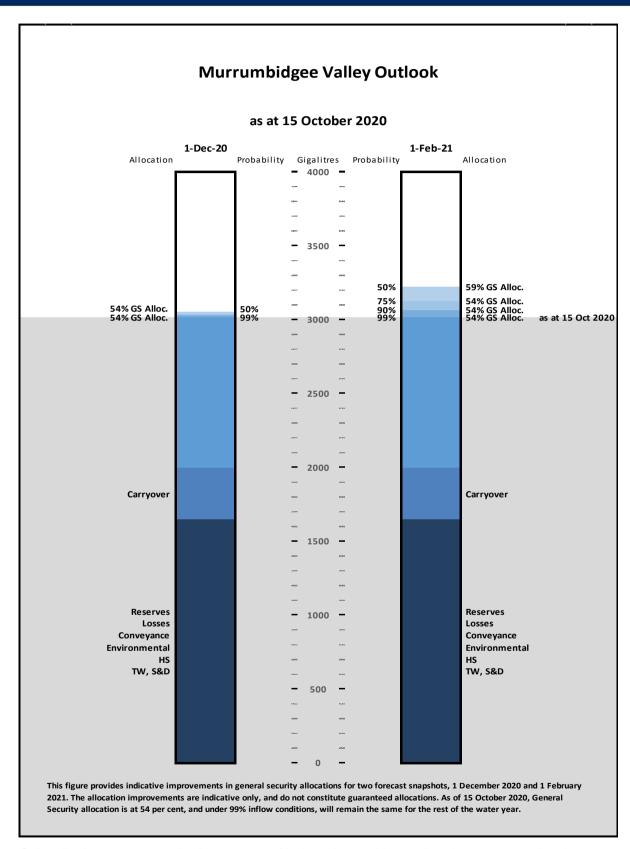
Repeat of historical inflow conditions	1 Dec 2020	1 Feb 2021
99 chances in 100 (extreme) (99%)	54	54
9 chances in 10 (very dry) (90%)	54	54
3 chances in 4 (dry) (75%)	54	54
1 chance in 2 (median) (50%)	54	59

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%.







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