Water availability and allocation update



17 February 2020

Murrumbidgee Valley

Water allocation update

General Security allocations in the Murrumbidgee regulated river system remain **unchanged at** six per cent of entitlement.

While recent rainfall has helped improve catchment wetness, the extreme dry antecedent conditions have impeded the catchment runoff response resulting in no significant system inflows. Further soaking rainfall is required to improve runoff and provide water for allocation.

Total Murrumbidgee system inflows, excluding Snowy Hydro's releases, for the current water year have been tracking in the lowest five per cent of historical record. Similarly, the Snowy Scheme has also experienced very dry conditions, receiving inflows in the lowest thirteen percent of record.

The system is being managed to ensure deliverability of all water orders this year and to meet all high priority commitments in 2020-21. This statement includes a preliminary outlook for 2020-21 opening allocations, provided further below.

2019-20	High Security	General Security	Average Carryover	Drought Stage
Murrumbidgee	95%	6%	8%	Stage 1

Drought stage

The **Murrumbidgee Valley** regulated river water source is in Stage 1 drought criticality, meaning all allocated water can be delivered under normal regulated river operations. Drought conditions across NSW continue to persist and the resource situation is being monitored closely to ensure Murrumbidgee high priority needs can remain secure for 2020-21.

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 13 February 2020)

- Blowering Dam is 36.6 per cent full steady holding 615,000 megalitres (ML).
- Burrinjuck Dam is 30.6 per cent full falling holding 317,000 ML.

Climatic outlook

The Bureau of Meteorology seasonal outlook for March to May shows that rainfall conditions are likely to be near average with streamflows likely to be below average and temperatures likely to be warmer than average.

The Bureau indicates that the El Niño-Southern Oscillation (ENSO) remains neutral. Modelling suggests that the ENSO is likely to remain neutral through autumn. The Indian Ocean Dipole (IOD) has returned to neutral from a very strong positive IOD event and will remain neutral for the coming months.

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

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Trade

Trade **out**, **into and within** the Murrumbidgee Valley is open (as of 13 February 2020). Water users are encouraged to 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 close if the IVT balance increases to 100 GL. Trade **in** will close should the IVT balance reach 0 GL.

Next announcement

The next water allocation statement for the Murrumbidgee Valley will be on **Monday 2 March 2020**.

A preliminary indicative water availability outlook for the start of next year (1 July 2020) is reported in this statement. It is too early for reliable forecasts; however, they will continue to be updated on a monthly basis until mid-May in the lead-up to the new water year. The reliability of the outlook will improve as the forecast period reduces.

The availability outlook for next year aims to help water users with their end of year water management decisions. Forecast conditions are best estimates only and not guaranteed water availability. They should be used with caution, particularly when projecting many months ahead.

Murrumbidgee resource assessment data sheet

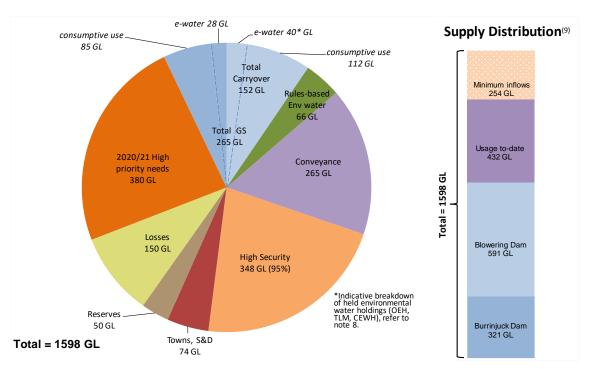
Resource Distribution (17 February) for 2019-20	Volume (GL)	
Total Available Resource ⁽¹⁾	1,598	
less		
Carryover (GS and Conveyance) (8)	152	
Rules based Environmental Water ⁽²⁾	66	
Towns, Stock, Domestic	74 (100%)	
Reserves ⁽³⁾	50	
Conveyance ⁽⁴⁾	265	
Announced High Security	348 (95%)	
Losses (transmission, evaporation, operational) ⁽⁵⁾	150	
Late Season Inflows ⁽⁶⁾	0	
Announced General Security ⁽⁸⁾	113 (6%)	
Future (2020-21) high priority needs ⁽⁷⁾	380	

^{*}See notes below.





Murrumbidgee resource distribution 2019-20 - 17 February 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 drought 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 (2019-20) is estimated to be about 880GL (includes montane release). Net Jounama release from 1 May 2019 to date has been around 785 GL.
- 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 42 GL) and environmental water allowances (EWA1 = 0 GL, EWA2 = 24 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 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.
- 5) Losses is 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) Late Season Inflows is the estimated inflow volume that will arrive into storage late in the year, after the peak irrigation demand season (usually post-February). This water cannot be allocated to water users at the start of the water-year, as it can create an expectation that the water is available for delivery before it is captured in storage.
- 7) Future high priority needs it is required to look ahead to next water year (2020-21) to ensure there is sufficient resource available to meet high priority commitments on 1 July 2020. This volume is estimated to be about 380 GL. This value changes from month to month based on the complex interaction of climatic factors, projected historical inflow sequence including Snowy Hydro Required Annual Releases forecast, usage/potential carryover, and actual transmission and operational losses as the water year unfolds.
- 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 28GL of GS, 15 GL of HS, 43 GL of conveyance allocation and 40 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 and allocation update



Preliminary Outlook for 2020-21

Key information

- This preliminary outlook for 1 July 2020 water availability is conservatively based on assumed extreme dry (99th percentile) inflow conditions for the remainder of this water year (2019-20) and throughout 2020-21.
- For context, the Murrumbidgee Valley has experienced between 'very dry' and 'extreme dry' (95th percentile) July 2019 to February 2020 inflows this year. Only five years out of a 100 years of historical record have experienced drier conditions.
- This forecast information is not guaranteed and should be used at one's own risk. It will be
 updated in the mid-monthly water allocation statements and will become more reliable as the
 forecast period reduces.
- Although extreme dry conditions are assumed to continue, heavy rainfall and significant inflows can occur at any time and allocations will be promptly adjusted accordingly.
- It is difficult to reliably predict end-of-year carryover, as it is highly dependent on weather
 conditions in coming months and individual decisions by water users. Nevertheless, at this early
 stage, estimates suggest carryover will be around five per cent of entitlement on average or
 around 100,000 megalitres (ML).
- In the Murrumbidgee water source, general security and conveyance licences can carry over water up to a maximum of 30 per cent of entitlement, and the account limit (allocation plus carryover) is 100 per cent of entitlement.
- Access to inter-valley trade in 2020-21 is dependent on the balance of the IVT account. The 30
 June balance will carry forward unchanged to 1 July 2020.
- BoM's forecast rainfall from March to May indicates that conditions in some parts of the catchment may be drier than average.
- Once the commencing allocations are announced on 1 July 2020, regular assessments will be undertaken and allocation announcements made fortnightly on the 1st and 15th of each month, or next working day following, until full allocations are achieved.

Indicative allocations on 1 July 2020

- Full (100 per cent) allocation can be expected for towns, domestic and stock access licences, and sub-category high security entitlements.
- Supplementary (including Lowbidgee) access licence holders can expect to receive a full allocation, which is available subject to announced periods of supplementary flows and access.
- It is forecast at this stage that high security allocation of 95 per cent and carryover commitments will be met on 1 July, and general security allocations will be low or zero.
- In the highly unlikely event that extreme dry conditions unfold for the remainder of this water year, a small shortfall could present on 1 July and be shared across accounts with high security, conveyance and carryover water.
- Any shortfall will be small and temporary, with less than 10 per cent impact and recovery from the first available water in 2020-21.





- No commencing general security allocation for 2020-21 is expected under extreme dry inflow conditions.
- Revised outlooks will be provided monthly and will become more reliable as the forecast period reduces.
- Water in Environmental Water Allowances (EWA) accounts will be available and accrue in accordance with the rules of the water sharing plan.

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