

15 March 2017

NSW Murray and Lower Darling

Preliminary water availability outlook for 2017-18

Key information

- This preliminary outlook for the likely 1 July 2017 water allocation is based on assumed dry (75th percentile) inflow conditions for the remainder of the current (2016-17) water year.
- The River Murray system has experienced very wet conditions this water year, with higher flows experienced in only 11 out of 100 years (11th percentile inflows).
- This allowed full water allocations for 2016-17 to be announced in November 2016 and contributed to Hume and Dartmouth Dams holding 2,550,000 megalitres (ML) more than this time last year.
- It is difficult to reliably predict end-of-year carryover, as it is highly dependent on weather conditions over the next few months and individual decisions by water users.
- Conditions this year are indicating potentially much higher carryover volumes in the NSW Murray than in recent years. Indications are that private carryover could be up to 45 per cent of entitlement, some 750,000 ML. Maximum carryover in the valley is 50 per cent.
- According to the Bureau of Meteorology, March is likely to be hotter and drier than average for the Murray Valley, and these conditions are likely to continue through the remainder of autumn. The drier than average outlook likely stems from higher than normal air pressure forecast across western and southern Australia, likely resulting in fewer rain-bearing systems crossing the region from west to east.
- The El Niño–Southern Oscillation (ENSO) indicator remains neutral. However, recent changes in both the tropical Pacific Ocean and atmosphere, and climate model outlooks surveyed by the Bureau, suggest that the likelihood of El Niño conditions forming in 2017 has risen to about 50 per cent. El Niño is often associated with below average winter–spring rainfall over eastern Australia and warmer than average winter–spring maximum temperatures over the southern half of Australia
- Once the commencing allocations are announced on 1 July 2017, regular assessments will be undertaken and allocation announcements made fortnightly on the 1st and 15th of each month, or next working day following, as required for the remainder of the water year.
- An update to this preliminary forecast of water availability for 2017-18 will be made on 15 May 2017.

Indicative allocations on 1 July 2017 – Lower Darling

- With the Menindee Lakes System (MLS) currently holding about 990,000 ML (57 per cent capacity), there is sufficient resource to assure full allocation for all Lower Darling licence categories for the 2017-18 water year from 1 July.
- This means water security for towns, domestic and stock users, and permanent plantings.
- It also means full access to water for irrigation under high security and general security entitlements, as well as access to carryover water.

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- Lower Darling inter and intra valley trade will remain open while the system remains above 480,000 ML. Also above this threshold the system will continue to be managed as a shared resource in accordance with the Murray Darling Basin Agreement.

Indicative allocations on 1 July 2017 - NSW Murray

- Security of water for towns, as well as domestic and stock access licences, is assured.
- Full allocations will be made for supplementary access licence holders. However, use of this entitlement is only available subject to announced periods of supplementary flow.
- Full access to carryover water in private accounts will be available on 1 July. As noted, carryover is estimated to be much higher than in previous years.
- Preliminary estimates indicate that 70 per cent of water users may have at least 45 per cent carryover, with 80 per cent of water users having at least 25 per cent of carryover.
- Water will be set aside for environmental requirements in accordance with the rules of the NSW Murray and Lower Darling regulated rivers water sharing plan.
- NSW Murray high security access licences will receive an allocation of 97 per cent of entitlement in accordance with the water sharing plan.
- General security allocation is expected to commence with at least 3 per cent of entitlement under dry conditions. This means that, when added to carryover, water availability for general security users could be on average close to 50 per cent of entitlement.
- Sufficient water will be available to make opening allocations for conveyance water, commensurate with the expected opening allocations above.
- Under the water sharing plan, the NSW share of the Barmah-Millewa Forest environmental water allowance may be borrowed for allocations when general security is less than 30 per cent. This assessment and outlook is therefore based on a full borrowing of the Barmah-Millewa account balance at the start of the 2017-18 water year.
- In the NSW Murray only general security access licence entitlements can carryover water, up to a maximum of 50 per cent of entitlement, and the account limit (allocation plus carryover) is 110 per cent of entitlement.
- NSW Murray inter and intra valley trade will be in accordance with existing procedures and protocols, including no net trade downstream of the Barmah choke.

Chances of improvement

The chances of improved general security allocation in the NSW Murray, based on different inflow conditions from 1 July 2017, are provided in the following tables.

Forecast general security allocation (per cent) ^

Potential Inflow Conditions ^{##}	1 Sept 2017	1 Nov 2017
99 chances in 100 (extreme) (99%)	3	3
9 chances in 10 (very dry) (90%)	10	25
3 chances in 4 (dry) (75%)	17	31**
1 chance in 2 (mean) (50%)	25	51**
1 chance in 4 (wet) (25%) ^{^^}	30*	100**

^{##} Multi-history modelling using all years on record.

[^] Assumes dry (75th percentile) inflow conditions for the remainder of the (2016-17) water year.

^ The 2016-17 water year-to-date has experienced very wet conditions (11th percentile) due largely to spring floods.

Assumes dry (75%) inflows for the remainder of the water year and general security carryover of 45% (750 GL).

* Commence pay-back of borrow from B-M Allowance.

** Borrow from B-M account is fully repaid.