

Regional customer drought update

30 January 2019



Key messages

Rainfall of around 10 – 50mm was received across the central to eastern parts of the state. The Northern reaches of the Upper Western areas received around 15mm. The rest of the state continued to remain dry.

Overall, regional valley storages vary significantly in security, with the Namoi, Barwon-Darling and Lower-Darling at high risk due to extending cease to flow conditions. The Macquarie valley will be at high risk in autumn 2019 while the Gwydir, Lachlan, Murrumbidgee and Murray valleys at risk mid 2019 if significant rainfall does not occur.

The drought conditions in the state's Central West, Far West and North West regions are the worst affected to date. As well as bringing hardship to local farmers and surrounding communities, the stressed river network is also impacting the riverine environment. These impacts are being felt most acutely in the form of declining overall water quality, blue-green algae outbreaks and fish kills. A number of fish kills were reported in recent weeks; in the Lower-Darling, downstream of Keepit and in Wyangala Dam.

Increased reports of red alerts are occurring for blue green algae with increasing temperatures and reduction in flows along the rivers due to the drought.

There has been widespread media coverage of the latest fish kills in the Menindee Lakes area. NSW Premier Gladys Berejiklian visited the Wentworth shire area last weekend, and Minister for Primary Industries Niall Blair was due to make a second visit to Menindee on 29 January.

WaterNSW will deliver water to support the feeding, breeding, and movement needs of these native fish species when more water is available in the Darling River. WaterNSW is continuing to monitor water quality throughout the dams and river systems as the drought continues across the Murray-Darling Basin.

In the Namoi, the 324 order was lifted and water orders have been delivered, including a small volume to Walgett's town water weir. However, no further releases to the Lower Namoi are possible until inflows occur as Keepit is practically empty and cease to flow conditions are extending from Keepit to Walgett.

In the Macquarie, there remains a restriction on access to 70% of carryover. Any improvements in resources to Burrendong Dam will need to consider high priority commitments for 2019-20, before this order is eased.

Bulk water transfer of 35 gigalitres from Windamere to Burrendong Dam commenced on 1 January 2019, and has been deferred due to small inflows to Burrendong. A second phase of the transfer is scheduled for mid-year, if conditions remain dry, leaving a minimum of 70 GL in Windamere.

Construction of Lower-Darling block banks is complete, and filling with the last remaining water in Pamamaroo was largely successful. Closing the pipes on these banks has resulted in cease to flow in some river sections, and a temporary water restriction order is now in place. Releases from Menindee to these banks has reduced as Lake Pamamaroo neared empty and its water quality declined. Releases have commenced from Wetherell for the Lower-Darling, at low rates, for the Lower-Darling from Menindee to the top bank (Karrola), as confidence in the Wentworth to Broken Hill pipeline means Wetherell can now supply the Lower-Darling.

The temperature forecast for the week should see a reduction throughout the state.

Negligible rainfall should be seen throughout most regions of the state during the week with the coastal regions of the state receiving 10 – 25mm.

Last week's weather

Rainfall of around 10 – 50mm was received across the central to eastern parts of the state. The Northern reaches of the Upper Western areas received around 15mm. The rest of the state continued to remain dry.

This week's weather forecast

A high-pressure system over the Tasman Sea will remain near stationary during the next few days, maintaining a ridge towards the Queensland coast. Meanwhile, a low-pressure trough over western New South Wales is expected to push further into the state, stretching from the far northwest to the central coast. Southerly winds behind this trough should take the edge off the heat in many districts, although the northern inland is forecast to remain very hot. The trough is forecast to weaken in the early parts of the week and shift westwards as the high over the Tasman Sea becomes dominant. Little change to this pattern is expected through the coming week, with a trough lingering over the western inland, and hot conditions returning to much of the state.

For the first part of the week, most areas in the state are forecast to receive at least 1mm of rainfall, apart from parts of the Upper Western and Northern Rivers and Tablelands regions. As the week progresses, it is forecast that rainfall of 1 – 10mm will fall across the central to eastern parts of the state. The lower and upper western areas are the only areas forecast to remain dry.

For the start of the week, NSW is forecast to see temperatures in the Upper and Western areas of the state reaching around 42 degrees, with the rest of the state varying between 30 – 39 degrees. The coastal regions should reach a maximum of around 33 degrees.

As the week progresses, the Lower and Upper regions of the state should see temperatures of around 39 degrees. As Friday approaches, temperatures of between 30 – 39 degrees is

forecast across the state in the Central and Western parts of the state. Coastal regions should range between 20 – 33 degrees.

Operational update

Lower-Darling:

Construction of all four temporary banks in the Lower-Darling is now complete and the upper block banks almost reached design capacity as the releases from the lakes cease.

Releases from Pamamaroo have ceased on 14 January due to low water levels and poor water quality and the pipes in the banks have now been closed to store this water. This will lead to cease to flow conditions between the banks' pools. Small releases (50ML/d) from Wetherell will maintain flows between Menindee and the first bank at Karoola until the end of January.

WaterNSW contacted customers along the Lower-Darling advising those wishing to install individual block banks (in locations between the four temporary banks) to forward applications to WaterNSW for fast track approvals, via standard conditions. It is now unlikely that there will be sufficient water to fill all these banks, so arrangements are being made to share the remaining water to ensure all customers have some access to water.

Since 4 December 2018, the Government requested WaterNSW implement restrictions on water accounts for our Lower-Darling customers. A temporary water restriction order restricts the use of any available water to critical human needs and permanent plantings, plus the use of high security water from Copi Hollow.

High levels of blue green algae continue within the lakes and Lower-Darling river. This is having an impact on water quality and restricting access to the lakes, especially Copi Hollow, for recreational use. A red alert level warning (high alert) for blue-green algae has been issued for the Darling River at Burtundy in the Lower-Darling region.

A third fish kill has been reported on 28 January (detailed counts not yet available) at the same site at Menindee as the second fish kill (where up to one million fish being impacted). The cause of this fish kill is also likely to be the result of a rapid change in air temperature and low dissolved oxygen. Dissolved oxygen levels were high in the top 1m of the water column but when the temperature dropped this water mixed with the anoxic lower water oxygen levels dropped to close to zero.

Namoi:

Cease to flow for the whole river from Keepit Dam to Walgett.

The block release from Keepit to deliver all orders placed by 5 November ceased on 16 December 2018, with Keepit Dam now at 0.4% of active capacity.

Delivery of these orders, and a small amount of additional orders from the expression of interest are now complete. No further block releases are planned without further inflow, and Keepit is now practically empty at 0.5% of active capacity.

WaterNSW is working with Roads and Maritime Services (RMS) to place a marine order on Keepit Dam to limit motor boating access to the dam due to the increase public safety risk with very low water levels and limited area available for activities. Navigational warning was put in place by RMS advising potential visitors of the public safety limitations on the 19 December 2018.

Low flows downstream of Keepit and increasing temperatures resulted in a fish kill in this reach of the river. High temperatures and low flows can reduce oxygen levels in the water column which puts native fish at risk.

Macquarie: WaterNSW is continuing to monitor water quality throughout the dams and river systems as the drought continues across the Murray-Darling Basin.

First phase of the Windamere Bulk Water Transfer (BWT) commenced on 1 January 2019. Was due to deliver 35 GL from Windamere to Burrendong. WaterNSW has stopped the bulk water transfer from Windamere Dam to Burrendong Dam one month ahead of schedule after two rain events produced good inflows into Burrendong.

Burrendong is planned to be drawn down to about 4% by end of summer. Deliveries to town water and stock and domestic supplies will be maintained from this volume in Burrendong Dam to at least the end of 2018-19 in the Macquarie. The second parcel of bulk water transfers may be released in spring 2019, if conditions remain very dry, to extend critical supplies in the Macquarie for 2019/20. This second stage of the BWT will leave 70GL in Windamere which is a very secure supply for that valley for at least seven years.

The level in Burrendong Dam is expected to drop steadily to about 4% by end of summer. Burrendong Dam had been drawn below 10% on five similar occasions (June 1995, Jan 1998, Apr 2003, May 2004 and Jan 2007).

Details

Valley		Storage volume (GL)	Weekly inflows (GL)	Releases ML/d	Comment	GS % AWD	AWD inflows required
Valley	Dams						
Border	Pindari	49	1	1,480	Releases are being made to meet d/s irrigation demand for both NSW and QLD customers including Boomi replenishment flow.	2.7	18.3
	Glenlyon	54	0.5	640			
Gwydir	Copeton	173	0.9	170	Releases are being made to meet d/s irrigation and environmental demand.	0	36
Namoi	Split Rock	19	0	86	Split Rock bulk water transfer complete. Keepit releases for Lower Namoi block release ceased 16 Dec with Keepit now at 0.4% of capacity. No further releases to Lower Namoi until inflows occur.	0	80
	Keepit	9	0	0			
Peel	Chaffey	39	0	170	Chaffey Dam releases for Tamworth and irrigation demand, in roughly 35:65 ratio. Level 1 water restriction for Tamworth.	38	N/A***
Macquarie	Burrendong	152	11.7	2,085	Current releases from Burrendong Dam are for reducing irrigation demand. Delivery of environmental flows commenced at Burrendong Dam on 12 July 2018 and finished on 11 Dec 2018, with a total delivery of about 127 GL.	0	317
	Windamere	133	2.2				

Valley		Storage volume (GL)	Weekly inflows (GL)	Releases ML/d	Comment	GS % AWD	AWD inflows required
Valley	Dams						
Lachlan	Wyangala	486	1.5	2,660	Current releases from Wyangala Dam are for irrigation, TWS and S&D demand.	0	224
	Carcoar	14	0.13	46	Current releases from Carcoar Dam are for irrigation and S&D demand. Due to drought conditions, end of system daily environmental flow requirements is only met intermittently.		
Murrumbidgee	Burrinjuck	396	4.7	4,360	Release for: irrigation, planned environmental water (186ML/d at Balranald and 50ML/day at Darlot) and planned/held environmental water to Lowbidgee and Balranald.	7	120
	Blowering	524	0.7*	4,400			
Murray	Hume	996	61*	14,300	Transfers from Dartmouth & Hume to Lake Victoria continues, at lower rate, for South Australia.	0	130
Barwon-Darling			0	N/A	Cease to flow conditions: Walgett – no flow since 21 July 2018; Bourke – no flow since 27 August; Wilcannia – no flow since 8 September	N/A	N/A
Lower-Darling	Menindee	45	0	50	Four block banks have been constructed and (almost) filled, pipes closed. Supply to Broken Hill is being met from Copi Hollow, and water from W2BH pipeline commissioning.	0	N/A

* Includes inflows from Snowy Hydro, already budgeted.

** Includes inflows from Dartmouth and Snowy Hydro, already budgeted.

More information

Stay up-to-date with storage levels, system risks and climate conditions across NSW. You can also find valley-specific information about storage status, predicted release patterns and operating conditions. Subscribe to have the report emailed to you each week. Please visit our website at waterNSW.com.au/subscribe for more information.

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