

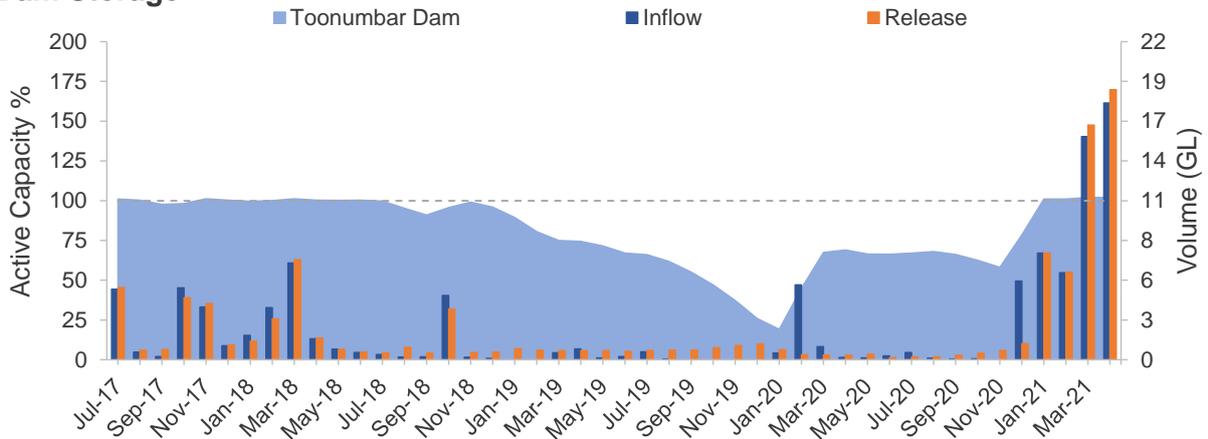
Was this the worst drought on record?

From 2017 to 2020, NSW experienced record-breaking drought that affected the whole state. Between January 2017 and December 2019, NSW temperatures were the warmest and rainfall was the lowest on record.

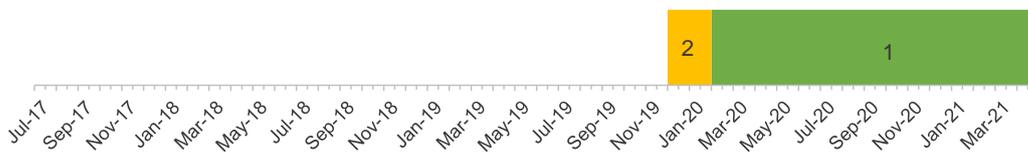
The drought was the second worst on record, in terms of storage inflows into Toonumbar Dam for any 24 month consecutive period over the historical record from the 1890's until now.

For the period December 2018 to November 2020, the 24 month inflows into Toonumbar Dam were 23% higher than the lowest ever inflows recorded between December 2001 and November 2003.

Dam Storage



Drought Stage



Allocations

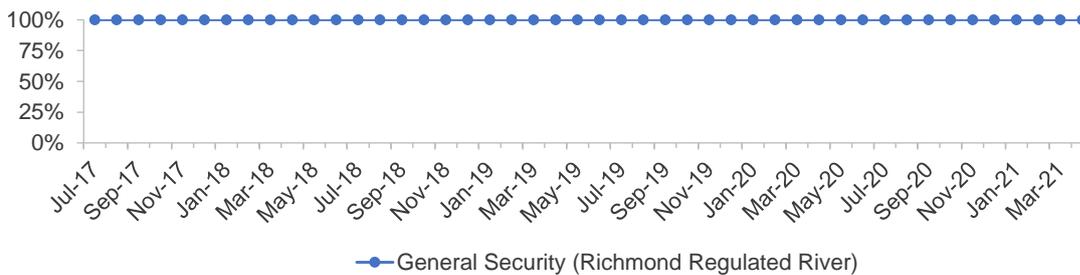


Figure 1 - Monthly storage, drought stage and water allocations for the Richmond Valley

Impacts

July 2018

Toonumbar Dam was at 99.8% capacity. High security and general security licence holders received a 100% allocation.



November 2019

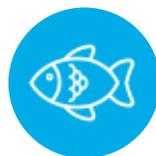
Below average rainfall had been experienced for five months. Inflows into Toonumbar Dam were just 75 megalitres (ML), compared to the average inflow of 2000 ML.



January 2020

Toonumbar Dam was holding 17.2% capacity. This was its lowest level during the drought.

There was a report of tens of thousands of dead fish including mullet, bass and catfish, above the weir at Casino. The likely cause was low dissolved oxygen within an isolated pool receiving minimal inflows.



July 2020

Toonumbar Dam was holding 67%. High security and general security licence holders received a 100% allocation.



July 2019

Toonumbar Dam had dropped to 66%. Full high security and general security allocations were still made.



December 2019

Toonumbar Dam had dropped to 24% capacity.

The Richmond Valley was declared to be in Stage 2 – Emerging Drought

General security licence holders were advised that access could be fully suspended in 2020 if conditions did not improve to protect supply for higher priority needs. Under a zero inflow, this could extend supplies to only March 2020.



February 2020

Rainfall resulted in significant inflows and Toonumbar Dam increased to 45% capacity.

The Richmond Valley was eased to Stage 1 – Normal Operations.

There were several reports of hundreds of dead fish including mullet, bream, flathead and catfish. The likely cause was significant inflows followed by hot weather that led to critically low dissolved oxygen.



December 2020

Toonumbar Dam filled and was spilling.



Government assistance and funding

The following government assistance and funding was provided:

- \$100,000 to the Richmond Valley Council for designated bulk filling stations to assist residents and bulk water carriers.
- \$231,870 to the Kyogle Council for investigating options for securing Bonalbo's water supply.
- Waiver of fixed water charges for general security licence holders, unregulated river and aquifer access licences applied from July 2018 to June 2021.

Drought information sessions

A drought information session was held in Casino in March 2020 and a webinar was held in December 2019. Further information can be found at: www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/drought-update/information-sessions

Lessons learnt

Changes being implemented

- The NSW Government is committed to earlier communication with communities when conditions indicate that we may be approaching drought. Clear and early communication will allow landholders and water users to better prepare for potential restrictions and ensure that applications for groundwater approvals and drought infrastructure are in place early.
- To better identify when we are moving into drought (or flood) WaterNSW is developing a framework for measuring risk. This framework will use a variety of indicators such as rainfall deficit, soil moisture and streamflow conditions to provide an early warning of drought or flood to enable the community to be better prepared.
- During the drought, the WaterNSW Insights Portal was launched to provide more specific information to water users on allocations, notices, and measures in their area. This is being further updated to include groundwater. Further information at: waterinsights.watnsw.com.au/
- The department is developing [Regional Water Strategies](#) that use climatic modelling to understand the risks associated with more severe climate conditions. These long-term strategies will assess and prioritise policy, operational and infrastructure options that will ensure regions are better prepared for future droughts and a more variable climate. Further information at: www.industry.nsw.gov.au/water/plans-programs/regional-water-strategies
- The NSW Water Strategy sets the strategic direction for water service delivery and resource management in NSW over the long-term. Actions for improving drought planning, preparation and resilience are set out in the NSW Water Strategy Implementation Plan. Further information at: www.dpie.nsw.gov.au/water/plans-and-programs/nsw-water-strategy
- The Extreme Events Policy is being updated by reviewing the measures that were applied during the drought, this will improve our future response to drought.

- The Town Water Risk Reduction Program has been developed to enable Local Water Utilities to manage town water risks more effectively. The program will reduce water quality, water security and environmental risks in town water systems in regional NSW. More information can be found at: www.industry.nsw.gov.au/water/plans-programs/risk-reduction
- The department, WaterNSW and the Natural Resource Access Regulator are working together to align the licencing and approvals process to make it easier, quicker and consistent for applicants.