

# Macquarie Valley Temporary drought works

August 2019



Photo: WaterNSW

WaterNSW will be undertaking a range of drought mitigation projects to extend water supplies to affected communities currently under Stage 4 critical drought conditions. These projects prioritise water supply to meet critical human water needs in the Macquarie Valley.

WaterNSW together with contractors Ertech, will commence the first stage of projects, involving the temporary raising of Warren Weir and the installation of temporary structures to block flows at Crooked Creek and Duck Creek regulators.

**Construction will start on Monday 26 August 2019 and take three weeks to complete.**

Water flows downstream of Duck Creek and Crooked Creek will cease from Monday 26 August 2019 with the construction of a temporary block bank to allow safe access to install the temporary structures at the regulators.

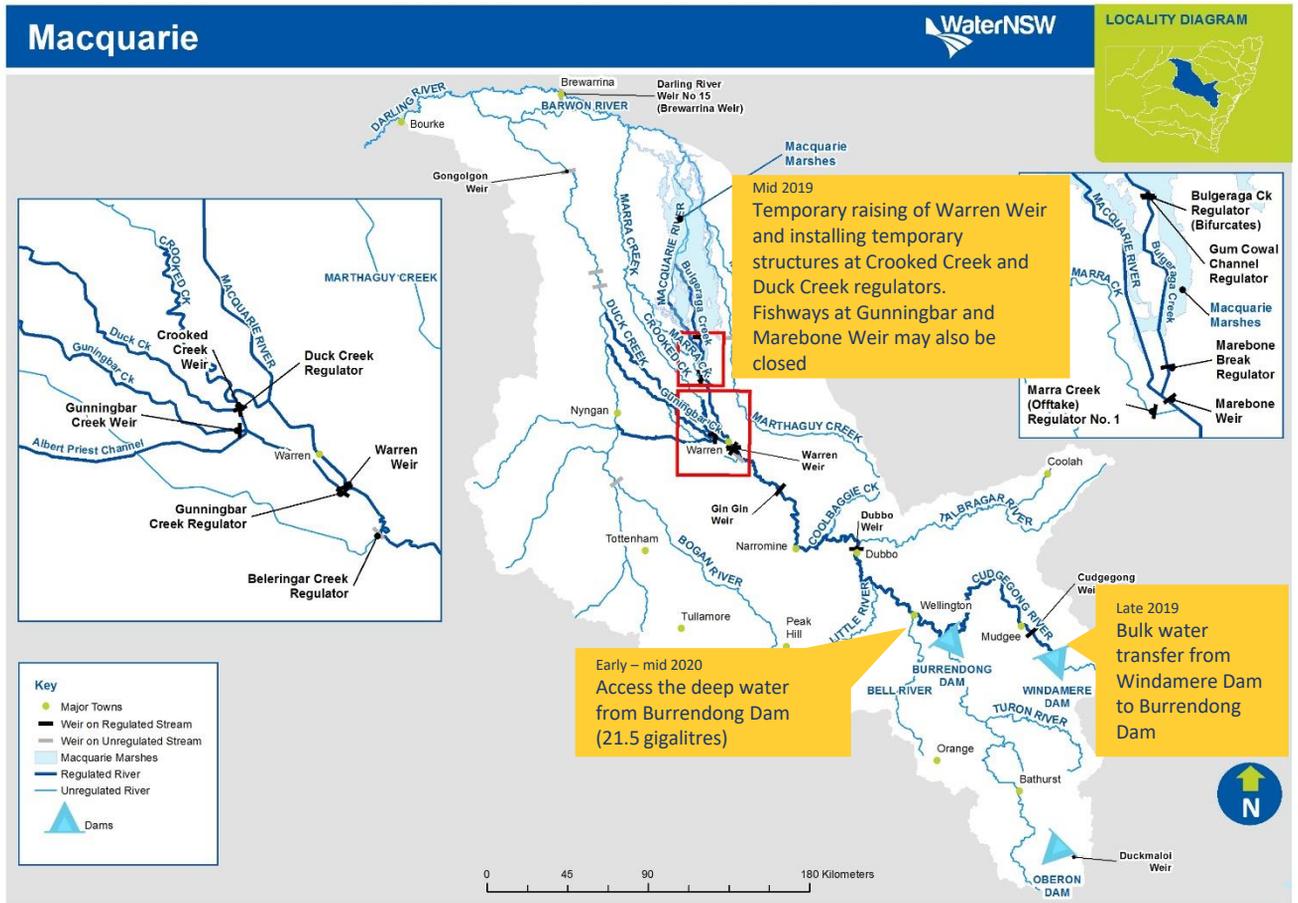
WaterNSW has been engaging with local councils, government agencies, customers and the community on the forecasted conditions and measures being considered to extend water supply since early this year.

With drought conditions predicted to continue, the Macquarie River between Burrendong Dam and the Macquarie Marshes, is expected to cease natural flows by November 2019 without the implementation of these drought mitigation projects.

We would like to thank nearby local landowners for their assistance with our important work.

## Project benefits

- Secure temporary water supply to meet critical human needs to Dubbo, Wellington, Narromine, Warren, Nyngan and Cobar.
- Part of a coordinated range of projects to extend water supply an anticipated total of 11 months.
- Enable monitoring of water quality conditions.
- Assist with monitoring of key fish habitat.



## Temporary works at Warren to extend water supply

### Drought mitigation works will involve:

- temporarily raising Warren Weir by 50 centimetres using an aluminium drop-board arrangement to increase the pool and raise the operating level of the weir; and
- installing temporary structures to block flows through the fishways on existing Crooked Creek and Duck Creek regulators. This will direct flows down the Gunningbar Creek Channel and Albert Priest Channel to support the townships of Cobar and Nyngan (about 50 megalitres (ML) / day).

As part of the environmental assessment to complete the temporary works, WaterNSW will continue to have inter-agency briefings to monitor the works and ongoing impacts from the drought conditions.

**Partial suspension of the Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 (WSP)** has been done with concurrence by the Minister for Energy and Environment in July 2019. By implementing the partial suspension rules, planned environmental water flows and other flows will cease downstream of Warren Weir, Duck Creek, and Crooked Creek regulators. Impacts to aquatic and terrestrial species including the Macquarie Marshes (Ramsar-listed wetlands) will arise from the suspension of WSP rules.

### When will temporary structures be in operation?

In September, the temporary structures will become operational and stop water flowing downstream of Warren Weir, Crooked Creek and Duck Creek prior to temperatures increasing. The existing Marebone Weir fishway will also be closed as part of the drought management operations to prevent downstream discharges, unless there are tributary flows. This will retain water in a pool to provide refuge habitat for fish.

### When will the temporary structures be removed?

The temporary structure will remain in place while water supplies remain at critical levels and communities in the Macquarie Valley continue to be identified as being in drought under the DPI Combined Drought Indicator.

Tributary flows, water flows entering the rivers and creeks from rain events, that are captured downstream of Burrendong Dam will be managed on a scenario basis in consultation with government agencies and the WaterNSW river operating stakeholder group (ROSSCo's) and in accordance with the priorities outlined in the *Water Management Act*.

## Upcoming drought mitigation projects

### Bulk water transfer - Windamere Dam to Burrendong Dam

Planned for December 2019, this will be the second water transfer this year between Windamere Dam and Burrendong Dam.

At the completion of the bulk water transfer, WaterNSW is obligated to ensure that at least 70,000 megalitres of water is left in Windamere Dam. This is in accordance with the terms of the Macquarie-Cudgegong Water Sharing Plan and the Bulk Water Transfer (BWT) protocol and will provide a minimum of seven years of water security to customers along the Cudgegong River.

Earlier in January 2019, the first bulk water transfer was stopped after 10 gigalitres was released from Windamere Dam as two rain events produced good inflows into Burrendong Dam, delivering 26 gigalitres.

### Accessing the deep water at Burrendong Dam

When Burrendong Dam reaches 0 % water level, the dam still has approximately 21.5 gigalitres (GL) of deep-water storage which sits below the low intake level of the dam. To access this storage we need to increase the power supply and install pumps to the intake tower. The deep-water storage could provide approximately 300 megalitres / day (equivalent to two months of water supply).

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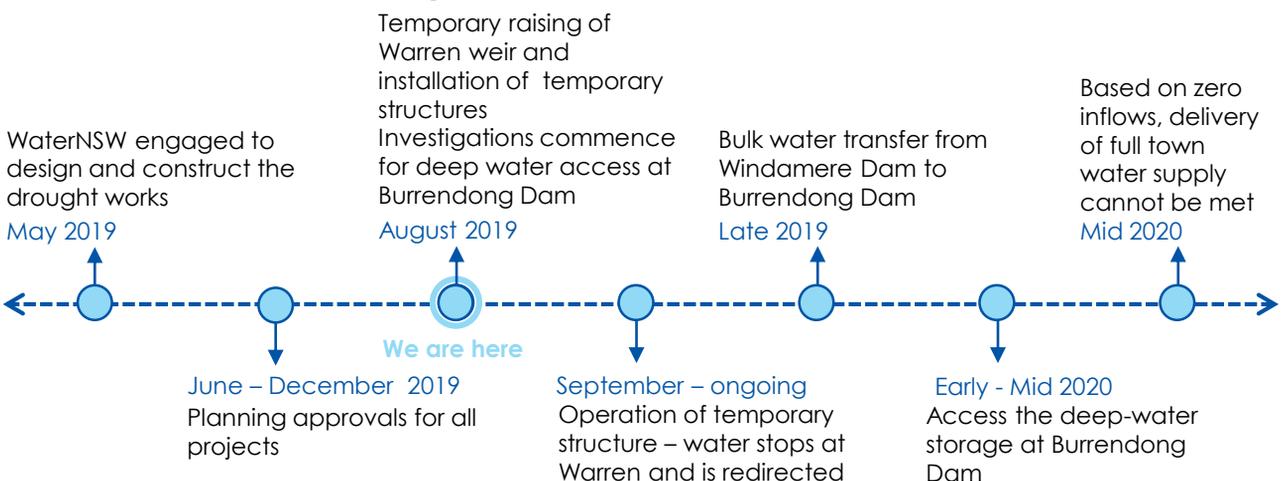
## Along our rivers and creeks ...

Across NSW, water levels in our rivers and creeks will continue to decrease, changing aquatic and environmental conditions.

What we should expect:

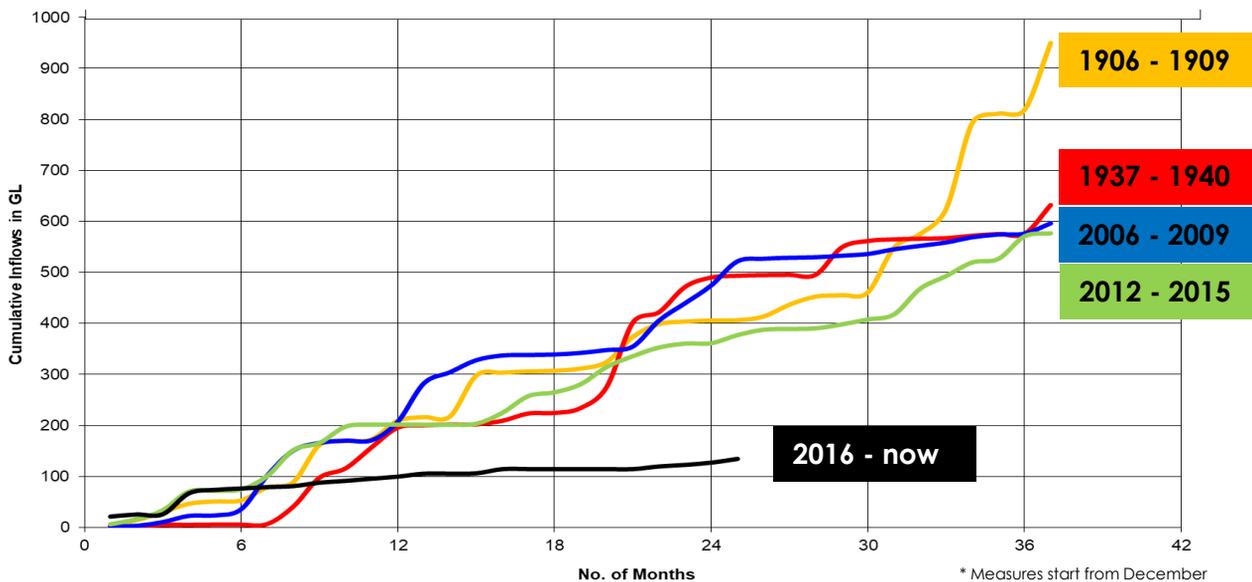
- Water quality will change as temperatures rise, flows are reduced and water pools diminish. Algal blooms may appear
- Aquatic habitats of fish and other animals are being closely monitored. As water temperatures change and levels decrease, oxygen in the water can diminish. It is anticipated that some fish will perish in sections of the river should the drought continue.

## Macquarie Valley Drought Works Schedule



# How does our current situation compare to previous drought conditions?

Comparison of inflows into Burrendong Dam during drought conditions



### Additional information:

WaterNSW, local water utilities (Councils) and the Department of Planning, Infrastructure and Environment (DPIE) are jointly and individually planning to implement a number of projects.

- Various local council websites
- Department of Industry – Water
- Department of Planning, Infrastructure, and Environment
- Department of Primary Industries (Fisheries)

### For information on support programs:

- NSW Government's [Emergency Drought Relief Package](#)
- The Federal Government's [Drought Communities Programme \(DCP\)](#)
- [The Safe and Secure Water Program \(SSWP\)](#)
- For information on mental health and welfare concerns, contact Lifeline, The Salvation Army, Beyond Blue and St Vincent de Paul Society

## Allocations and restrictions in 2019-20

For more information:

- [New AWDs for 2019-20 announced on 1 July 2019 by DPIE \(Water\)](#)
- [Water delivery arrangements for 2019-20 via operations update by WaterNSW](#)
- [Temporary water restrictions order by DPIE \(page2251\)](#)
- [Access licence dealing principles order by DPIE \(Water\)](#)
- [Partial suspension of Water Sharing Plan - suspension of environmental flow rules](#)

### Keep in touch:

-  Call us on **1300 662 077**
-  Email us at [customer.helpdesk@waternsw.com.au](mailto:customer.helpdesk@waternsw.com.au)
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