

Contents

Community drought information sessions.....	2
Roles of various forums in providing advice to the CWAPs.....	2
Drought relief package and regional water strategies	2
Drought Situation and Potential Management Responses.....	3
General outlook	3
Scenarios.....	3
Lachlan.....	4
Murrumbidgee.....	4
NSW Murray	4
Barwon-Darling/Lower Darling	5
Macquarie.....	5
Peel	6
Upper and Lower Namoi.....	6
Gwydir	7
NSW Border Rivers.....	7
Agencies present.....	7
Next meeting.....	7

A combined Critical Water Advisory Panel meeting was held on 12 June 2019

The meeting included a session covering a state-wide overview, followed by individual sessions for each Critical Water Advisory Panel:

- the Barwon-Darling/Lower Darling – sixth meeting
- the Northern Inland Panel (covering the Gwydir, Namoi, Macquarie/Cudgegong, NSW Border Rivers and Peel systems) – sixth meeting; and
- the newly formed Southern Panel (covering the Lachlan, Belubula, Murrumbidgee and NSW Murray systems) – first meeting.

Further information on the function and membership of critical water advisory panels can be found in the Fact Sheet: https://www.industry.nsw.gov.au/__data/assets/pdf_file/0013/203125/critical-water-advisory-panels-fact-sheet.pdf

Please note: All reasonable efforts have been made to provide accurate and current information in this communique, however, changes in circumstances such as weather variability, water management decisions or any other events after the time of publication may impact on the accuracy of the material. Water Allocation Statements published by the Department of Industry Water provide the most accurate information on available water. The Water Allocation Statements setting out the starting allocations for the 2019/20 water were released on 1 July 2019 and are available [here](#).

Disclaimer: The information contained in this document should not be interpreted as making any changes to existing government policy.

A summary of the meeting discussion and outcomes is provided below.

Community drought information sessions

To ensure that there is greater understanding of local issues to inform the Panels, the Department of Industry Water (DOI Water) and WaterNSW held a second series of public meetings with communities in critical drought affected river systems between 22 May and 7 June 2019. The presentations and a report on the key issues raised at the meetings and responses are available from the DOI Water's website [here](#).

Key state-wide issues raised at the sessions included:

Rivers

- Community involvement in drought management decisions and access to current drought information
- Access to further information on how allocated water is being used (including environmental water)
- Advance warnings of water access restrictions/embargoes (including supplementary access)
- Priorities between different classes of licences in regulated systems, including general security carryover, and related water sharing rules
- Further information on long-term drought planning
- Differences in water allocation systems between the states for the shared Murray River resources
- Impacts of floodplain harvesting on system inflows
- Channel sharing and delivering water in regulated systems
- Connectivity between river valleys.

Groundwater

- Groundwater levels and extractions.
- Calculation of possible groundwater allocation reductions
- Groundwater recharge from rivers
- The Natural Resource Access Regulator's role in compliance.

Roles of various forums in providing advice to the CWAPs

The recent community drought meetings were held to hear community views on drought management. A summary of the key issues raised at these meetings was provided to the Panels. Further community drought meetings will be held later in 2019.

WaterNSW is setting up River Operations Stakeholder Consultation Committees (ROSCCOs) for each valley to seek direct and broad stakeholder input. Outcomes from these and other customer meetings are provided to the Panels by WaterNSW. To date, ROSCCO meetings have been held for the Macquarie, Gwydir and Peel Valleys. For more information on ROSCCOs, see [here](#).

Prior to the Panel meetings, Critical Water Technical Advisory Group meetings are held with DOI Water, WaterNSW and the Office of Environment and Heritage (OEH) to collate information on drought management options in each valley for the panels.

Advice from the Panel meetings is provided to the Water Executive.

Drought relief package and regional water strategies

The NSW Government has announced an additional \$355 million in drought support. This includes

- \$44 million for critical town water supply projects:
 - \$30 million for the expansion of the Dubbo borefield
 - \$2.2 million for new groundwater bore for Coonabaraban

- \$2 million to allow Narromine to access deeper groundwater
- \$8.3 million for off-stream storage for Nyngan and Cobar
- \$2m for critical maintenance of the Albert Priest Channel which supplies Nyngan and Cobar
- An additional \$15 million for emergency water carting and works for towns and villages.

In addition to support for the current drought, the Department is developing 30-year long term regional water strategies for all areas outside of the Sydney metropolitan area. These will assess water security at the regional scale and opportunities for further infrastructure and improved policy or operational changes. These strategies will build on the existing investments in regional and town water supplies, and will help to ensure that our resilience to future droughts is improved.

The strategy for the [Greater Hunter](#) is completed and the next focus is on the Macquarie, Lachlan and Gwydir valleys. A long-term climate model is being developed. The department will work with Councils to ensure their water security studies and proposals are considered and will also consult the community and stakeholders on water security issues and options. The timeframe for completion of all the strategies is the end of 2020.

Detailed assessment of two potential projects will progress in the interim: a proposed mid-system re-regulating weir in the Macquarie River and a pipeline from Lake Rowlands to Carcoar Dam. Other emergency works will also proceed, such as those announced as part of the NSW Government's drought package.

Drought Situation and Potential Management Responses

General outlook

All of the major inland river valleys across NSW are now classified as in either emerging drought (Murray, Murrumbidgee and Lachlan), severe drought (Border Rivers, Peel, Upper Namoi, Gwydir) or critical drought (Lower Namoi, Macquarie, Barwon-Darling and Lower Darling). Valleys in the north and far-west are experiencing record low inflows, in most cases worse than the previous drought of record. The Bureau of Meteorology is not forecasting improvement in rainfall conditions over the next three months.

Under NSW legislation, in a critical drought situation, priority in the allocation of water is given to critical human needs and critical non-human needs (of significant social, economic, and national security importance), then critical environmental needs, then other high priority uses such as stock water and high security licences.

Water sharing plan rules can be suspended to give effect to these priorities. In addition, these priorities are considered in the application of temporary water restrictions when limiting access to inflow events or first flush. A number of [temporary water restrictions](#) have been applied in the northern and far west valleys. The department is developing criteria to better inform water users when these restrictions are likely to be applied or lifted. The application of restrictions, based on these criteria, will still need to be reassessed on an event-by-event basis. This will consider factors such as:

- the size and extent of the flow event
- the extent to which high priority needs (towns, stock, industry, environment) are being met
- connectivity of the flow to downstream river systems.

Stakeholder and Panel input will be sought on these criteria.

Scenarios

WaterNSW produces a range of inflow scenarios to assist in determining drought operations. This includes zero inflows, drought of record, and extended drought of record sequences.

DOI Water normally bases decisions on allocations and availability of general security carryover water assuming minimum forecast inflows under the previous drought of record at the time the water sharing plan commenced (usually 2004). Given the severe drought conditions in the north, assessments may have to be more conservative on 1 July 2019 than under the normal allocation process. Any further inflows will be progressively allocated to improve high priority allocations and provide suspended carryover water.

Lachlan

Some suspension of general security carryover water and restrictions to high priority and high security allocations have been flagged in the last Water Allocation Statement. This will ensure that critical needs can be supplied during 2019/20 along the length of the river (although grouping of orders will be required), including a domestic and stock replenishment flow. Additional reserves will also need to be set aside for the 2020/21 water year. If conditions do not improve, then the full length of the river may not be able to be supplied in 2020/21.

In the Belubula River, the Panel noted the challenges of meeting the end of system flow rule during extended drought. DOI Water is working with OEH to develop options to suspend or change this rule. Reduced high priority allocations and some restrictions on access to general security carry may be required. Water trading will be necessary to supplement any additional high security water needs. Although some water in general security accounts is expected to be available on 1 July, water may only be delivered to upstream of the Needles near Canowindra. Supply to downstream of Canowindra will be from tributary inflows below Carcoar Dam.

Murrumbidgee

The Murrumbidgee Valley is the best placed in inland NSW for water availability. While no initial general security allocation is likely, all carryover water will be available and high priority and high security will receive full allocations. The only restriction is likely to be in conveyance water, although the allocation for conveyance should improve during the year. Water will also be reserved for high priority needs for the subsequent water year.

Extractions are close to the trigger for groundwater allocations reductions in the Lower Murrumbidgee Deep water source. There is concern over growth in permanent plantings and increasing reliance of these plantings on groundwater and general security entitlement.

NSW Murray

While no initial general security allocation is likely, all carryover will be available and high priority and high security will receive full allocations. However there is still a shortfall in meeting all these needs, so no or little conveyance allocation is likely on 1 July 2019.

Information on inflows available to NSW is complex to provide in a shared system, but these will be developed. Work was also requested by the Panel in determining how increased permanent planting development is being supplied (from groundwater, trade, etc.) and impacts on water availability.

There are ongoing concerns regarding channel capacity and sharing. This is a key issue under discussion between the states and the Murray-Darling Basin Authority, and work is underway on assessing choke deliverability and demands downstream. The Panel also discussed the constraints relaxation measures under the Basin Plan to enable additional environmental water to be delivered, but this would also improve overall operational delivery. Increased water through the choke will also assist in water quality through carbon dispersal.

While town water restrictions are not the responsibility of the NSW Government, it was agreed that the issue of consistent town water restrictions in terms of timing and levels was important, particularly during drought. If water restrictions are required in the future, governments will work together to help coordinate the approach taken by councils along the Murray.

Barwon-Darling/Lower Darling

Natural inflows into the Barwon-Darling from upstream tributaries (northern valleys and Queensland), plus the environmental releases under the Northern Fish Flow Event, are all contributing to some reasonable improvements in town water supplies along the Barwon-Darling. Bourke has switched its supply back from artesian groundwater to river water. However there are still some sections of the Barwon-Darling which have not received flow – e.g. downstream of Brewarrina until the Culgoa River confluence and between the Bourke Weir and the Warrego River confluence.

DPI Fisheries, OEH and WaterNSW are looking at key habitat in the system to provide advice on timing of required flows and resilience of various ecological parts of the system. While some pools are topped up now, by summer the water levels in the pools will have been draw down and could stratify with a very high risk of further large scale fish kills anticipated for the 2019/20 summer. Studies have shown that flow rates of some 510 ML/d at Brewarrina and 350 ML/d at Wilcannia are needed to suppress stratification and reduce the risk of algal blooms.

Some water in the Barwon-Darling may reach Lake Wetherell, but only expected to be a small volume. The lowest block bank at Ashvale is now empty. Some horticulturists have advised that without improved supplies, they will stop watering by September and allow trees to die. Advice on minimum tree maintenance requirements can be provided by DPI Agriculture.

There are no releases from Menindee Lakes and this will remain the situation in 2019/20 unless reasonable inflows arrive into the storage. It is estimated that the following inflow volumes are required:

- 10 to 15 GL to run the river through to Burtundy
- 30 to 50 GL to replenish the water behind the block banks
- 80 to 100 GL to provide 12 months continuous supply to Burtundy.

Small flows now into the Lower Darling would assist in providing refuge pools for fish, but small releases in summer (from November) can cause problems with the water being too hot, impacting fish populations.

There has been community concern over the progress on the upgrades of Wilcannia and Walgett Weirs. For Wilcannia Weir, design and consultation phases will be completed by the end of 2019. Funding is secure and measures are being taken to expedite the project. The tender for Walgett Weir construction is in the final stages.

The pipes that allow flow to pass through Boera Dam and other storages on Toorale National Park and State Conservation Area were fully open on 15 April 2019 prior to flows arriving. Water was subsequently passed through Toorale's storages at a rate of at least 600 ML/d. The pipes remained open until flows receded and eventually ceased in mid-June.

Approximately 29 gigalitres of water is estimated to have flowed into Toorale on the Warrego River between April and June 2019. More than 80% of this volume passed the Louth gauge on the Darling River downstream of the Warrego before flows ceased. Work will commence in October 2019 to allow higher volumes to be passed downstream. A Review of Environmental Factors (REF) is expected to be exhibited later in 2019.

Macquarie

In the Macquarie system, there is insufficient water in Burrendong Dam to meet all demands and run the river - if dry conditions continue the dam will be empty by the end of 2019 without restrictions and operational measures. All general security account water is expected to be suspended on 1 July 2019 and high security and other high priority users will receive reduced allocations.

WaterNSW is proceeding with the temporary raising of Warren Weir to curtail flows at this point to conserve supplies and to enable the towns of Cobar and Nyngan to continue to be supplied via the Albert Priest Channel. This will save about 30 GL and extend supplies until January 2020. Small releases will be made below the weir to maintain critical refuge for fish as required.

A further bulk water transfer from Windamere Dam will extend supplies to February 2020. If conditions do not improve, then work could be undertaken to allow the pumping of Burrendong Dam's dead storage which, in combination with very conservative estimates of inflows, will extend the ability to meet critical needs until June 2021. Assessments of water quality issues and environmental impacts will need to be undertaken.

While Dubbo Council is to receive NSW Government funding from the [Drought Infrastructure Package](#) to expand its borefield, this will take some time to be fully operational. Similarly funding for an additional off stream storage at Nyngan is being provided, but still needs water to enable this to be filled. There are limited groundwater options available for Nyngan and Cobar.

Local government representatives raised concerns about licensing requirements that are impacting on the supplies for Orange. This includes the requirement to release an environmental flow from Suma Park Dam which is measured some 2km below the dam, requiring additional water to be released to ensure delivery to this point. Further a certain flow is required in the Macquarie River to allow water to be piped to Suma Park Dam. The Department will ensure these issues are addressed and support councils to mitigate any emerging town water security risks.

Peel

Inflows to Chaffey Dam are currently worse than previous record low years and transmission losses are high. Tamworth Regional Council has investigated groundwater as an alternative supply, but the resource is not sufficient to meet their full needs. In order to reduce river losses, the Panel discussed a number of options that could be considered, including the use of temporary weirs and piped options, such as from Chaffey Dam to the Dungowan pipeline. The NSW Government, WaterNSW and Council are working together to develop and deliver measures to extend and secure water supply to Tamworth. Both temporary weirs and the pipeline proposal require environmental assessments. There will be impacts on fish habitat if releases from the dam cease.

These measures could also impact on smaller volume river users above and below Tamworth, and close consultation with these users will be important. Some may be able to access alternative supplies such as groundwater or water carting. The aquifer, while relatively small, could accommodate some additional use - although groundwater allocation would have to be purchased from existing users. Groundwater allocation will be 51% for 2019/20, with surface water general security users on zero allocations. Council is prepared to provide water from its Calala water treatment plant for carting for downstream users.

Upper and Lower Namoi

With zero inflows, Split Rock Dam would be empty by March 2020. There will be no new general security allocation in the Upper Namoi and some carryover water is likely to be suspended. Supply to Manilla and Barraba will be able to be provided, although block releases instead of continuous supply will be required.

There have been no useful inflows into Keepit Dam, and no releases have been able to be made since December 2018. Some downstream tributary inflow in March assisted Walgett and high priority and high security users to access some limited volumes. The mines are actively seeking alternative supplies such as groundwater.

Access to the dead storage of Keepit Dam is a possible option, although there are issues with water quality and impacts on fish.

Gwydir

No general security allocation is likely for 2019/20, but full high priority allocations and general security carryover access is expected. Copeton Dam could last to March 2021 with zero inflows. The remaining water in the Environmental Contingency Allowance could be delivered next year, but it may not be deliverable in 2020/21.

NSW Border Rivers

No new general security allocation water and carryover water is likely to be restricted. Priority will be to supply towns, although water may not be delivered beyond Boggabilla Weir. Goondiwindi will be supplied from Boggabilla Weir. Mungindi has access to groundwater.

Boomi replenishment flow may not be provided, although most landholders have access to groundwater or water carting is an option. Fish impacts could be significant of reducing dam releases.

Agencies present

Department of Industry - Water

WaterNSW

NSW EPA

DPI Agriculture

DPI Fisheries

Rural Assistance Authority

NSW Health

Office of Environment and Heritage

Department of Premier and Cabinet

Local Land Services

Orana Joint Organisation of Councils

Far North West Joint Organisation of Councils

Far South West Joint Organisation of Councils

Namoi Joint Organisation of Councils

Central NSW Joint Organisation of Councils

New England Joint Organisation of Councils

Riverina and Murray Joint Organisation of Councils

Riverina Joint Organisation of Councils

Canberra Joint Organisation of Councils

Next meeting

The next combined Critical Water Advisory Panel meeting is likely to be convened in September/October 2019, coinciding with further community engagement. If conditions change, an earlier meeting may be arranged at short notice.

© State of New South Wales through Department of Industry 2019. The information contained in this publication is based on knowledge and understanding at the time of writing (June 2019). However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Department of Industry or the user's independent adviser.