

# Regional water availability report

Weekly edition  
17 December 2018

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## 1. Overview

WaterNSW manages and operates 42 dams and storages to deliver water for environmental, domestic, town water, stock, industrial and irrigation purposes across the state.

WaterNSW storages provide supplies to all the major river systems in Western NSW, Greater Sydney, the Southern Highlands, Shoalhaven Bay as well as the Hunter, Bega, and Iron Pot valleys in coastal NSW.

The total active storage percentage of rural water supplies on 17 December 2018 was 41.0% of the total active storage capacity. This was an increase of 0.1% from last week.

The total storage level of urban water supplies on 17 December 2018 was 61.7% of the total storage capacity. This was an increase of 0.5% since last week.

## 2. System risks

- The Lower Namoi single block release strategy from October through to December 2018 is complete at Keepit. Delivery to all remaining orders is now secure as well as flows to Walgett.
- In the Macquarie the temporary water restriction remains in place and only 70% of remaining carryover can be delivered with the current stored volumes and the new, lower inflows. The actual inflows to Burrendong Dam since the last AWD in August 2017 total about 42 GL. This is only 23% of the previous record low inflow of about 180GL for the 16 months ending in November.
- Cease to flow conditions continue in the Barwon Darling system as it remains dry, except for some small flows near Brewarrina from the Macquarie environmental releases.
- Block releases are under way in the Gwydir valley to deliver the small volumes remaining in customer accounts as conditions remain dry.
- Grouping of water orders and an early cessation to deliveries in the western section of the Border rivers will be required if conditions remain dry in 2018/19.
- Menindee Lakes continues to be below the 480/640GL trigger for NSW control, and four temporary block banks have been constructed to extend drought security beyond December 2018. Releases from the remaining water in Lake Pamamaroo is being used to fill these banks. Cease to flow, between these banks, is expected in coming weeks. These lower flows increase the possibility of; access problems with very low flows and decreasing water quality with increase in; salinity, pH and Algae.

### 3. Climatic Conditions

New South Wales Rainfall Totals (mm) Week Ending 17th December 2018  
 Australian Bureau of Meteorology

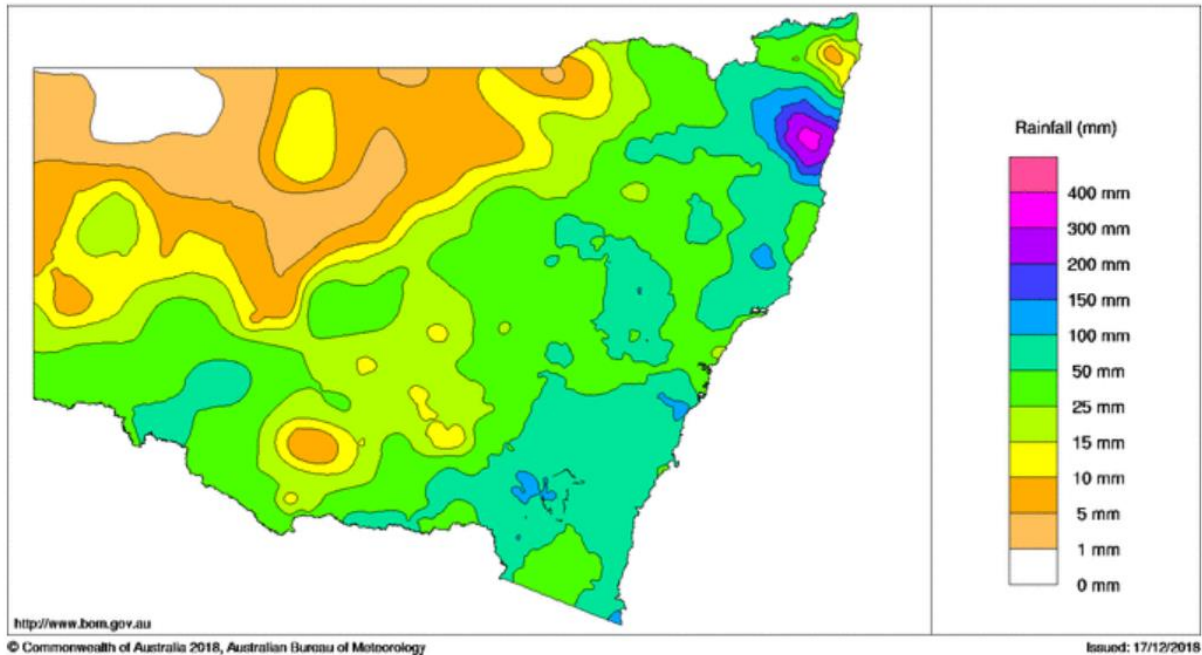


Figure 1 - Weekly rainfall totals for New South Wales

Rainfall was received over most the state during the week, the exception being the North West of the state which remained mostly dry. The Coastal, Central and Southern parts of the state received good rainfall of around 25 – 100mm.

A broad trough of low pressure lies over inland New South Wales, while a high is situated near New Zealand. This pattern is bringing humid air from the tropics into eastern New South Wales, leading to stormy and unsettled conditions in many areas. This trough is likely to linger over the state's southeast during the next day or two, extending back towards the state's northwest, while a high over the Tasman Sea maintains a ridge to the northern coast.

The first half of the week should see rainfall in the Northern Tablelands and Northern Rivers areas of up to 50mm, with the coastal regions receiving 1 – 5mm. The central to western parts of the state is forecast to remain dry.

During the second half of the week the coastal regions should again receive rainfall of up to 25mm with the central areas forecast to receive negligible rainfall and the west should remain dry.

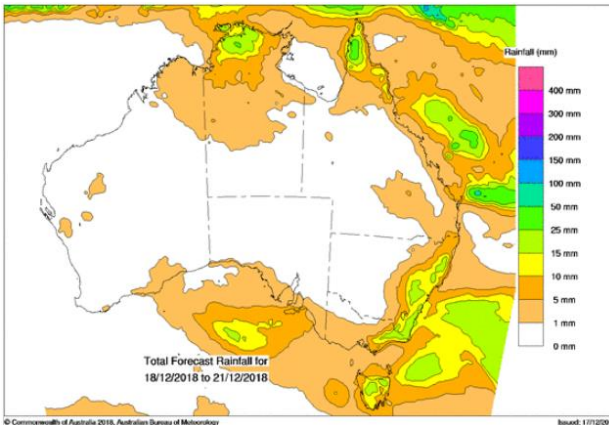


Figure 2a – First 4-day Forecast (18 - 21 Dec 18)

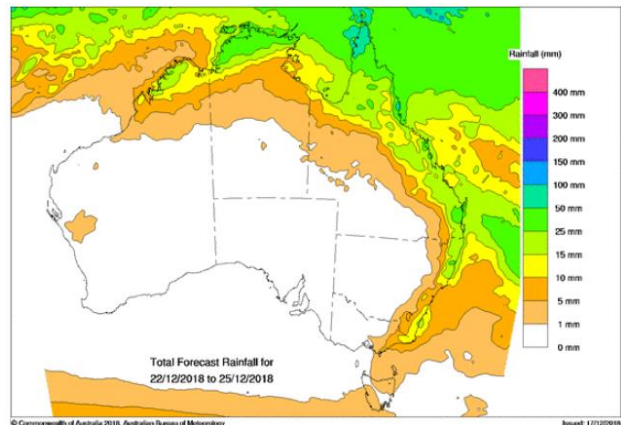


Figure 2b – Following 4-day forecast (22 - 25 Dec 18)

December to February is forecast to have roughly equal chances of a wetter or drier three months, i.e., no strong tendency towards a wetter or drier than average season ahead. This pattern is fairly typical of a summer El Niño event.

Historical outlook accuracy for December to February is moderate to high.

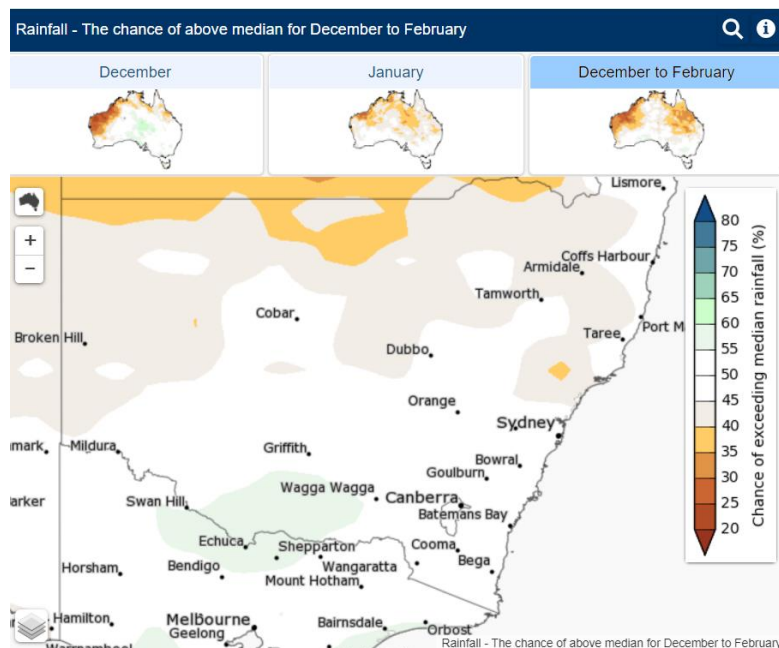
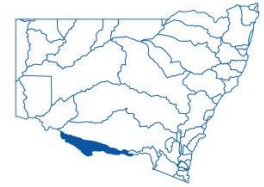


Figure 3 – 3-month rainfall outlook

## 4. Southern valley based operational activities



### 4.1 Murray valley

#### Storage status

- Hume Dam is currently 41% of active capacity, releasing about 6,300 ML/d.

#### Predicted release patterns

- Releases from Hume Dam are likely to increase after last week's increased flows from Victorian tributaries and continue to meet irrigation and environmental demands and to transfer water to Lake Victoria. Transfers from Hume Dam to Lake Victoria are continuing to ease.
- Release downstream of Yarrawonga Weir is about 20,700ML/day to manage the weir pool level within operational limits. The levels in Lake Mulwala increased due to moderate streamflow responses in the Ovens, Kiewa and local Yarrawonga catchment from last week's rainfall. The Yarrawonga release is likely to ease off gradually. Part of the flows are passed through specific forest regulators to take advantage of pre-wetted anabranch channels that can transfer water efficiently around the Barmah Choke.
- Forest regulators are being actively used to maintain the river level at Picnic Point below 2.6m. Currently the level at Picnic Point is about 2.51m.
- The Edward River Offtake is currently about 1,560ML/d and will remain below the channel capacity of 1,600ML/day.
- The Gulpa Creek Offtake is currently about 340ML/d and will remain below the channel capacity of 350ML/day.
- Stevens Weir level will remain steady at about 4.47m to manage the level upstream of Wakool Canal offtake, which is about 1.74m. Flow downstream of Stevens Weir is expected to marginally exceed channel capacity of 2,700ML/day due to increased inflows from the Millewa forest into Edwards R upstream of Toonalook .
- Flows in the Colligen Creek (434ML/day), Yallakool Creek (414ML/day) and Wakool River (50ML/day) are likely to vary marginally in line with Stevens Weir pool height.
- The combined Wakool – Yallakool flows are augmented with supply from Mulwala Escape at Wakool so that the flows are maintained at about 600ML/day in the Wakool system.

## Operating conditions

- As per the recently released NSW Extreme Events Policy for all surface and ground water sources in the NSW Murray Darling Basin, the NSW Murray regulated river water source is assessed to be in [Stage 1](#). There are no account restrictions in force in the valley and water supplies are being managed according to the water sharing plan rules. There is currently a shortfall for delivery of next year's high priority needs, but recovery is expected with summer and autumn inflows.
- Returns to Edward River upstream of Toonalook from the environmental water delivered into the Barmah – Millewa forest is currently averaging about 1,700ML/d. The combined flows from Edward Offtake, Gulpa Creek regulator and the forest inflows produce up to 3,800ML/day at Toonalook.
- Environmental water delivery to Wakool-Yallakool and Colligen-Neimur Creek systems as per the hydrograph provided by Fisheries have been suspended. The flows are now managed to maximise the delivery to Murray using the Edward Wakool system subject to channel capacity in the Wakool system.
- Supply through Perricoota Escape (90ML/day) and Wakool Escape (120ML/day) are expected to continue for the next few weeks.
- Supply to Edward River is also augmented with Billabong Escapes at Finley, (250ML/day), which is likely to continue for the next few weeks.
- Flow at Moulamein is currently at about 2,400ML/day and is likely to remain relatively steady.
- Flow in Niemur River at Mallan School is currently about 620 ML/d and is likely to gradually increase to 680 ML/day over the week.
- Merran Creek flows upstream of its confluence with Wakool is about 164ML/day and is likely to vary between 130 and 160 ML/day for the next few weeks.
- Flow in Wakool River at Stoney Crossing is currently at about 1,210ML/day and is likely to remain relatively steady.
- Flows at Balranald are currently about 390ML/day and will reduce gradually to about 280ML/day.
- Lake Victoria is currently holding about 563 GL or 80% of active capacity. The flow to South Australia is about 7,050ML/d.
- Potential Blue Green Algae issues:
  - Results for November (19/11) show benign cyanobacteria at all sites across the storage. *Aphanocapsa* sp., a benign cyanobacteria is in the highest numbers at the Dam Wall but overall the phytoplankton density is low. Storage remains at green alert.
  - For more information visit: [Water Quality Algae](#)

**Planned supply interruptions:**

- None.



## 4.2 Lower Darling valley



### Storage status

- The lakes currently hold about 2% of active capacity. The total storage is about 480GL.
- Lake Menindee has been dry since 6 Feb 2018.
- Lake Cawndilla and Lake Tandure are below active storage levels from end of November 2018

### Predicted release patterns

- Release from Lake Pamamaroo is about 320ML/d, primarily to meet the flow targets of about 300ML/d at Weir 32 to fill the temporary block banks.
- The following is the tentative plan for releases from upper storages to fill the banks:
  - Weir 32 target will remain at 300ML/d to maintain filling rates at the block banks but is expected to reduce as the Lake Pamamaroo outlet capacity reduces as the lake level falls.
  - Current level at the block bank near Karoola is about 2.45m. The pipes in the bank are partially open (approximately 75%).
  - Current level at the block bank near Jamesville is about 3.73m, The pipes at the bank are closed.
  - Current level at the block bank near Ashvale is about 1.10m. The pipes at the bank are closed.

### Operating conditions

- A temporary water restriction came into effect on 4 December limiting the take of water to; town water, domestic and stock, permanent plantings, and, from Copi Hollow, high security licences. [Gazette](#)
- As per the NSW Extreme Events Policy for all surface and ground water sources in the NSW Murray Darling Basin, the Lower Darling regulated river water source is assessed to be in [Stage 4](#), as restrictions limit access to water for critical needs only.
- The average pan evaporation rate at Menindee over the last week was about 8.2 mm/d equivalent to about 2,600ML from the lakes over the week.
- The total storage of Menindee Lakes reached the 480GL trigger for NSW control of the lakes on 16 December 2017. The releases from the storages will be managed as per the Lower Darling Annual Operations Plan until the storage volume next exceeds 640GL. For more information visit: [Lower-Darling Operational Plan](#).
- Four temporary block banks viz. Karoola, Court Nareen, Jamesville and Ashvale have been constructed to ensure supply to domestic, stock and permanent plantings. Releases from Lake Pamamaroo outlet are targeted to fill these banks.

- Pumping from Lake Pamamaroo to top-up Copi Hollow ceased on 10/12/18.
- A red alert level warning (high alert) for blue-green algae has been issued for Lakes Wetherell (Site 3), Lake Tandure (Site 8), and Pamamaroo (Sites 9,10 and 13), Copi Hollow in the Menindee Lakes system, and for the Darling River at Broken Hill Pumping Station and Weir 32 sites.
- The blue green algae at Menindee may be expected to move slowly downstream with the low flow release from Weir 32.
  - Media release: [Water Quality Algae](#).

**Planned supply interruptions:**

- None.

### 4.3 Murrumbidgee valley

#### Storage status

- Burrinjuck Dam is currently at 44% of active capacity, releasing about 450 ML
- Blowering Dam is currently at 49% of active capacity, releasing about 4,500 ML/d.



#### Predicted release patterns

- Releases from Burrinjuck Dam are being maintained at minimum rates as per planned environmental water rules.
- Release from Blowering Dam may be increased up to about 7,000ML/day to meet the irrigation demand and environmental water orders.
- The current diversion into Yanco Creek is about 300 ML/d and is likely to remain relatively steady.
- Delivery to Billabong system via Finley Escapes is about 250ML/day and is likely to remain at this maximum capacity for the next few weeks.
- The Beavers Creek Offtake is controlled to achieve a target of at least 60ML/day in December at Kywong.

#### Operating conditions

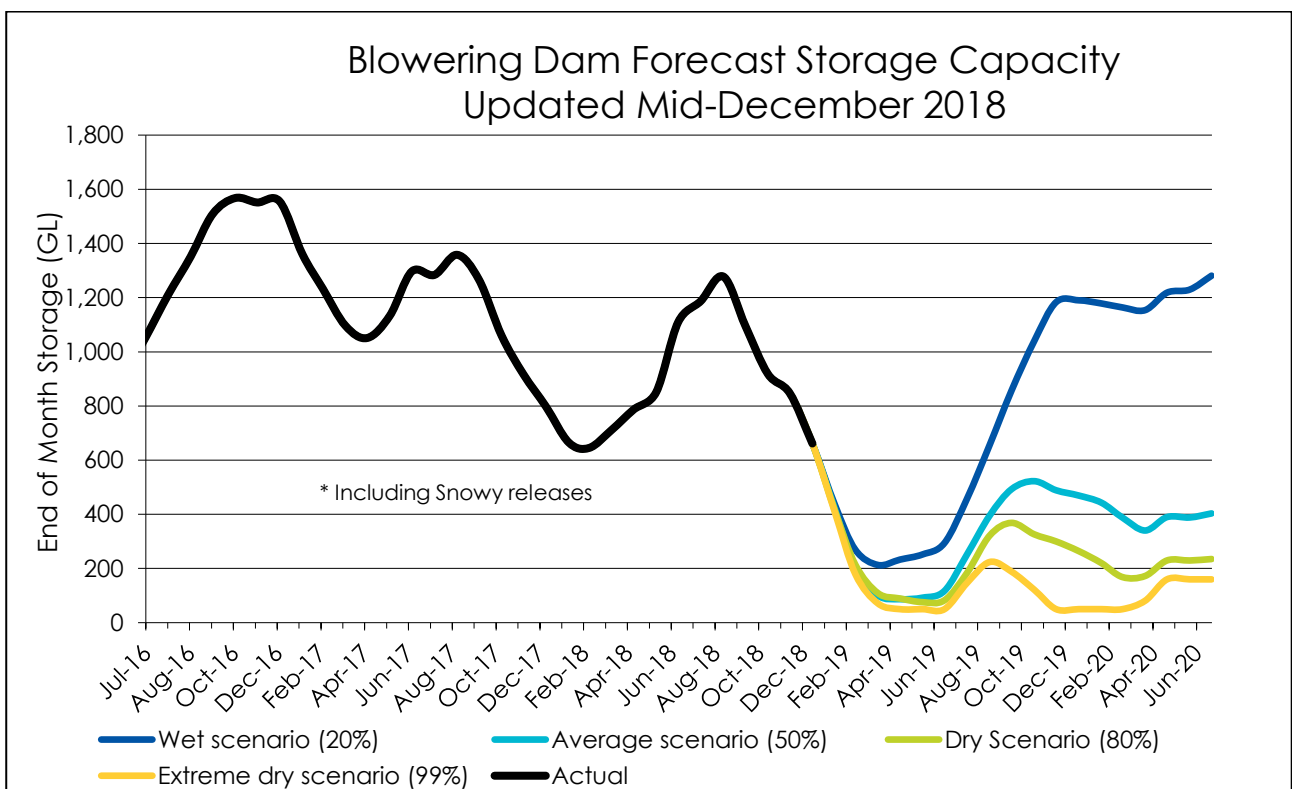
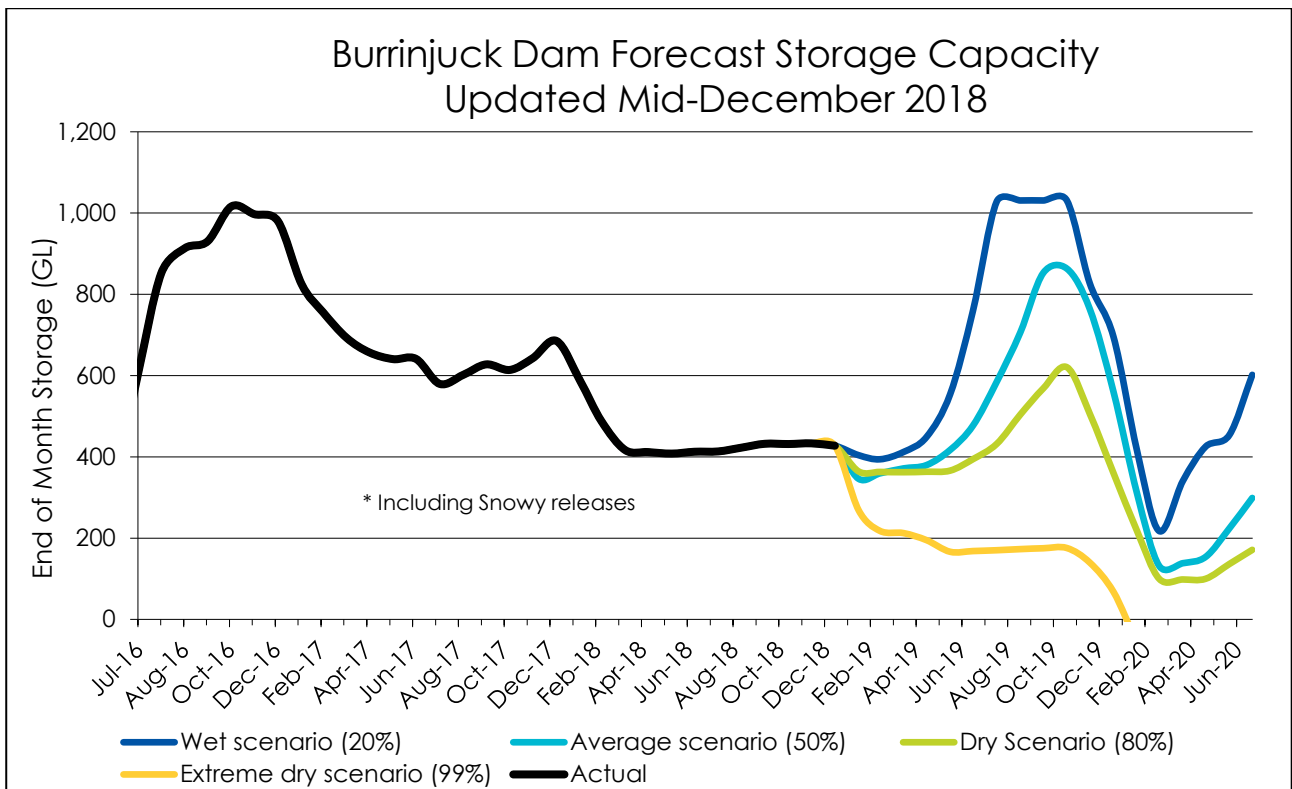
- As per the NSW Extreme Events Policy for all surface and ground water sources in the NSW Murray Darling Basin, the Murrumbidgee regulated river water source is assessed to be in [Stage 1](#). There are no account restrictions in force in the valley and water supplies are being managed according to the water sharing plan rules. The shortfall for delivery of next year's high priority needs is currently around 300,000 ML.
- Berembed Weir is currently at about 4.96m and will be used to capture any system surplus to be re-used by next week.
- Bundidgerry storage is currently at 4.5m and will be fully used to supply irrigation demand by Murrumbidgee Irrigation.
- Gogeldrie Weir is currently at 6.1m. The weir is being actively used for re-regulation to capture any system surplus and then to meet downstream system demands while maintaining sufficient head to supply water to meet the irrigation demand to Sturt Canal and Coleambally Main Canal.
- Tombullen storage is at about 3.4m and is being actively used for re-regulation, with capture of system surplus due to rainfall rejections and then to reuse the captured water to meet downstream system demands.
- Hay Weir is currently at about 7.4m and will be filled with any system surplus. The weir is expected to be at full supply level until after Boxing day. The stored water will then be used to meet

downstream demands over the next two weeks and weir is expected to be at about 6.0m by first week of January 2019.

- Maude Weir is currently at 5.8m and will be maintained relatively steady. The weir is being used to deliver environmental water orders into South Caira channel.
- Redbank Weir is at about 5.5m to supply environmental water to Yanga wetlands until late-January. The environmental delivery to Patterson's Pipe that commenced on 29 November is expected to continue until end of December. The supply of environmental water to assets via North Redbank Channel through Glen Dee offtake commenced on 17 December 2018 and is planned to conclude by 10 January 2019.
- Flows at Balranald are currently about 390ML/day and will reduce gradually to about 280ML/day
- For Inter Valley Transfer (IVT) account from Murray to Murrumbidgee refer to WaterNSW website [IVT Ordering](#).
- Potential Blue Green Algae issues:
  - Blowering Dam: Latest results (04/12) show minor counts of benign cyanobacteria (*Aphanothece* sp.). Downstream results showed no cyanobacteria. Storage remains at green alert.
  - Burrinjuck Dam: November sampling results show that few cyanobacteria were detected at any u/s location. Mainly diatoms were detected in all samples. Storage remains at green alert
  - Hay Weir Buoy, Maude Weir Buoy and Redbank Weir Buoy sites have a Red status.
  - Lake Wyangan North in Griffith also has a Red status.
  - The Murrumbidgee River at Balranald has a green alert status.
  - Other sites have no alerts.
  - For more information visit: [Water Quality Algae](#).

#### **Planned supply interruptions:**

- Planning is underway for the maintenance of Tarabah Weir as the maintenance team is awaiting a suitable window of low flows.
- Nimmie-Caira offtake structures: Replacement of the existing actuators and cabling at the Nimmie Creek Regulator is expected to be undertaken between 17 December 2018 and 30 January 2019. For safety reasons, power supply to other regulators viz. South and North Caira offtakes will also be impacted. During power outage period gates can still be operated manually.



## 5. Central valley based operational activities

### 5.1 Lachlan valley



#### Storage status

- Carcoar Dam is currently 44% and releases have averaged around 25ML/d.
- Wyangala Dam is currently 47% and releases have averaged around 1,350ML/d.
- Lake Cargelligo is currently 79%.

#### Predicted release patterns

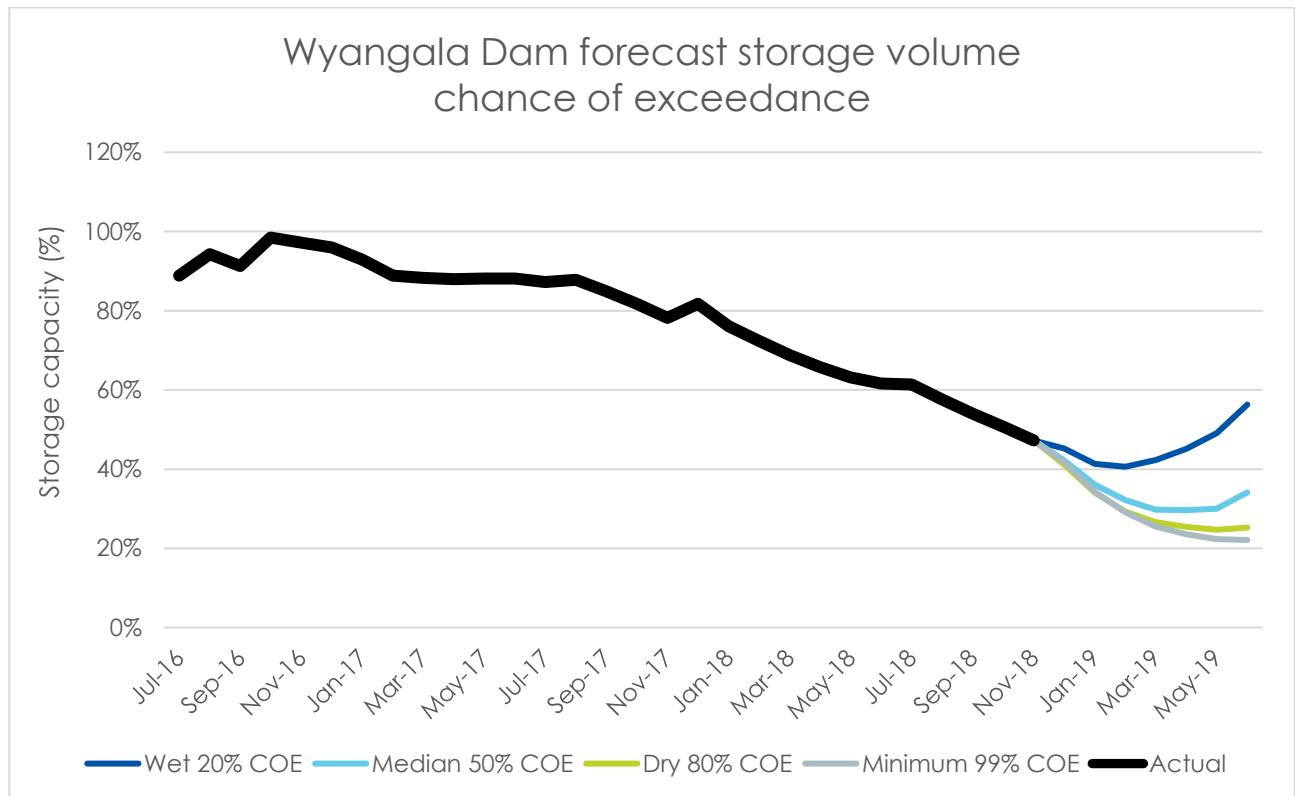
- Carcoar – likely to remain at 2ML/d until later in the week.
- Wyangala - Remain steady at 2,100ML/d release. including 500ML/d of Environmental water.
- Brewster Weir - Likely to remain around 450 ML/d to meet irrigation orders.

#### Operating conditions

- The current tributary inflows from the recent rain total about 4,000 ML and this is being delivered as Environmental Water Allowance (Wyangala), supplemented by an additional 3,000 ML of releases from Wyangala Dam to make an upper Lachlan small fresh event of about 7,000 ML over 10 days, and as 12 to 14 day large fresh below Booligal. The head of this water is currently passing Forbes.
- The 14th December Water Allocation Statement confirmed zero for general security and the initial Available Water Determinations (AWD) of 100% for towns, S&D and high security. Carryover into 2018-19 in Lachlan River is about 369GL, equivalent to about 62% of general security share components.
- It is estimated that a combined dam and tributary inflow volume of more than 267,000 ML is required in December before a further allocation can be made in the Lachlan River. Inflows received in December to date has been about 24,000ML.
- Lake Cargelligo storage is currently at 79% and the level is likely to remain between 40% and 80% during the irrigation season.
- As of 25 July 2018, Lake Brewster main storage is effectively empty. Starting on the 27 September environmental water has been delivered into the outflow wetlands, with the goal of building the seedbank through a full growth cycle of wetland vegetation.
- Latest BGA samples show that Willandra Weir, Lake Brewster outlet channel, Lake Brewster Regulator C, Lake Cargelligo Outlet and Boatshed are all on green alert.

**Planned supply interruptions:**

- Nil.



## 5.2 Macquarie valley

### Storage status

- Burrendong Dam is currently at 16% and Windamere Dam is at 39% of capacity.



### Predicted release patterns

- Releases from Burrendong are around 1,500ML/d and are expected to stay between 1,200 to 1,400ML/d for rest of the week, increasing in the following week.
- Releases from Windamere are around 70ML/d and are planned to stay between 70 to 80 ML/d for rest of the week depending on irrigation demand.

### Operating conditions

- Delivery of environmental flows commenced at Burrendong Dam on 12 July 2018 and completed from the dam with a recession ending the deliveries on 11 December at Marebone.
- The current releases from Burrendong Dam are largely for Irrigation orders, and a portion for town water demand and minimum flow targets. Deliveries for the second round of watering for summer crop has started from the dam last week, and irrigation demand has increased.
- The timing of all S&D deliveries in 2019 will depend on rainfall events, dam inflows, and contributions from downstream tributaries.
- The initial Available Water Determinations (AWD) for 2018-19 are 100% for towns, S&D and high security, while general security is zero.
- Carryover into 2018-19 in the Macquarie River was about 316GL or 52% of general security share component. Carryover into 2018-19 in the Cudgegong River was about 102% of share component. However, as per the Temporary Water Restriction Order, the resources in Burrendong Dam, minimum expected inflows, plus planned bulk water transfer from Windamere Dam, only provide 70 per cent of the 1 July 2018 balance of general security and environmental accounts (including EWA).
- The Order states that Macquarie regulated river (general security) access licences will be restricted to 70 per cent of the volume of water in the carryover sub-account account as at 1 July 2018. Cudgegong regulated river access licences, including general security, are not restricted.
- Cropping and catchment conditions are being assessed to inform demand and deliverability requirements. At this stage the planned bulk water transfer from Windamere Dam will commence in January. The transfer will take place in two distinct stages. The first phase of the transfer will be in January/February 2019 totalling about 35 gigalitres. A second phase of the transfer will occur in spring 2019, leaving a minimum of 70GL in Windamere Dam, which provides a very secure supply for local demand for the next seven years.

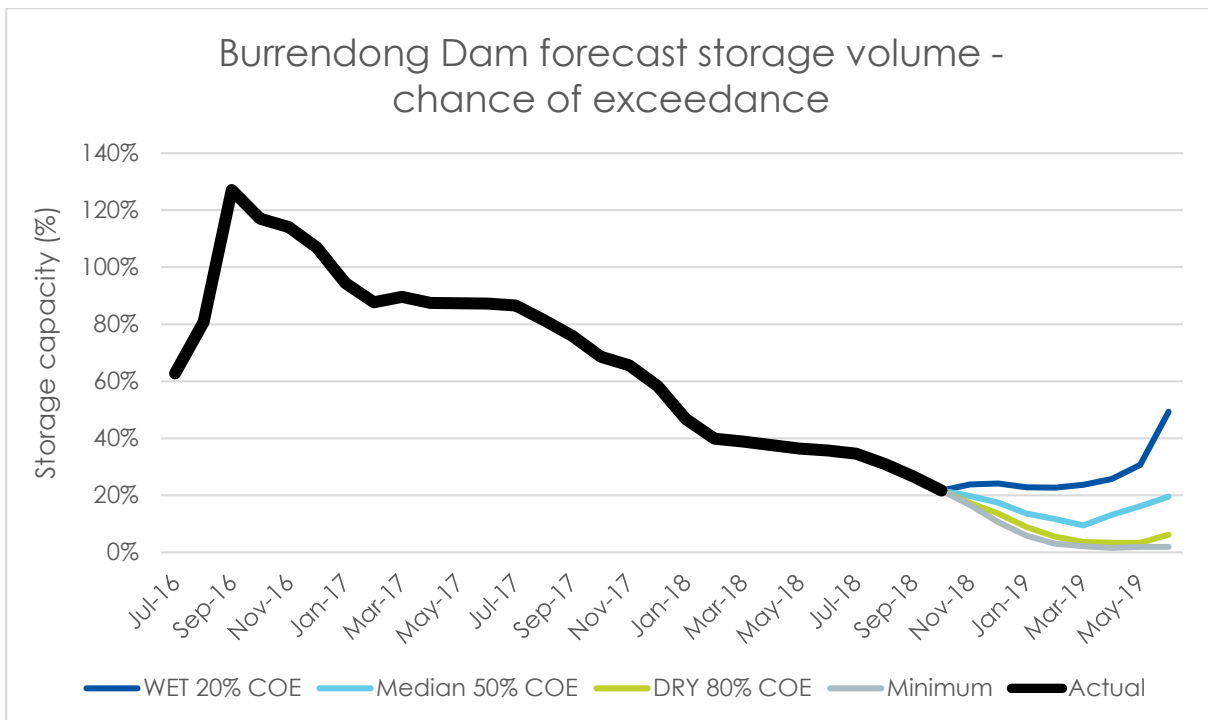


- An information session on bulk water transfer was held in Mudgee on 4 December 2018 and stakeholders were advised to register for the Early Warning Network to receive customer notices and other relevant communications on the bulk water transfer.
- The level in Burrendong Dam is expected to drop steadily to about 3% by the end of summer. Burrendong Dam has been drawn below 10% on five similar occasions (June 1995, Jan 1998, Apr 2003, May 2004 and Jan 2007).
- As inflows are received during the year, subject to meeting high priority commitments such as town water supply and basic landholder rights for 2019-20, the amount of water in the drought reserve may be reduced and be made available to customers.
- The end of November resource assessment indicated that the access to water in the drought reserve is only likely to be reviewed before June in "Average" conditions and before January under "Wet" conditions.
- DOI (Water) in their Water Allocation Statement (WAS) for December 2018 stated that dam Inflows in excess of 60,000 ML are required by the end of January 2019 to secure higher priority needs for the 2019/20 water year before the current restrictions on carryover will begin to be eased. The December WAS has also made reference to the NSW Extreme Events Policy, which introduces a staged approach to managing extreme events such as severe droughts or poor water quality events, and to the associated Incident Response Guides (IRGs). The December WAS has also confirmed that the Macquarie regulated river water source is assessed to be in Stage 3 of the drought stages with stage 4 the highest level under the Incident Response Guides.
- Inflows in excess of 60,000 ML by the end of January 2019 is required to secure higher priority needs under Stage 4 drought management operations during the 2019/2020 water year. Should this inflow volume arrive before February 2019, any additional resources will then be used to ease some of the current account restrictions on carryover and EWA active accounts. Further inflows will then be used to improve the drought management operations in 2019-20 from stage 4 to stage 3 prior to easing the current restrictions and drought management operations further. The Macquarie–Castlereagh incident response guide can be viewed at [https://www.industry.nsw.gov.au/\\_data/assets/pdf\\_file/0018/201906/macquarie-castlereagh-schedule-g-incident-response-guide.pdf](https://www.industry.nsw.gov.au/_data/assets/pdf_file/0018/201906/macquarie-castlereagh-schedule-g-incident-response-guide.pdf).
- The actual inflows to Burrendong Dam since the last AWD in August 2017 total about 42 GL. This is only 23% of the previous record low inflow of about 180GL for the 16 months ending in November.
- This drier than historical minimum inflow confirms that the system has entered into a new drought of record for Burrendong Dam, and the next few months inflows will be important for planning this season's operations.

- Deliveries in 2018-19 require water conservation initiatives to reduce losses. This involves implementation of water order debiting and, where feasible, block releases of irrigation orders in lower parts of the Macquarie River.
- Customers are reminded that those who repeatedly extract less water than indicated in their approved water order will have their account debited for the full amount ordered, rather than the amount extracted. Please view the approved water order debiting rules as below: [Fact Sheet](#).
- Burrendong algal results for the 28<sup>th</sup> Nov show no presence of potentially toxic species. Assemblage at station 1 and Mookerawa were dominated by flood alga, whereas the Cudgegong showed mainly green alga. Storage is now at Green alert. However weekly sampling will continue as part of the curtain reinstatement.
- Windamere algal results for the 19<sup>th</sup> Nov shows a minor presence of toxic species at Dam Wall and mid lake, however storage remains on green alert.
- A second trash rack is now installed at Windamere Dam in preparation for the bulk water transfer. The position of the trash racks is currently 8-14 m below the surface.
- Works to reinstate the temperature curtain at Burrendong Dam have been completed and the commissioning phase has commenced. The commissioning of the curtain operation will allow the continuation of this trial as the water near the surface of the lake begins to warm.

**Planned supply interruptions:**

- Nil



## 6. Northern valley based operational activities



### 6.1 Namoi valley

#### Storage status

- Split Rock Dam is at 4.7% of active capacity.
- Keepit Dam is at 0.3% of active capacity.
- Chaffey Dam is at 43% of active capacity.

#### Predicted release patterns

- Split Rock Dam is currently releasing around 28 ML/d, as the recent bulk water transfer to Keepit is complete. Releases are likely to range from 28 ML/d to 40 ML/d over the week.
- Keepit Dam releases have been reduced to 5 ML/d.
- Chaffey Dam is currently releasing around 60 ML/day.

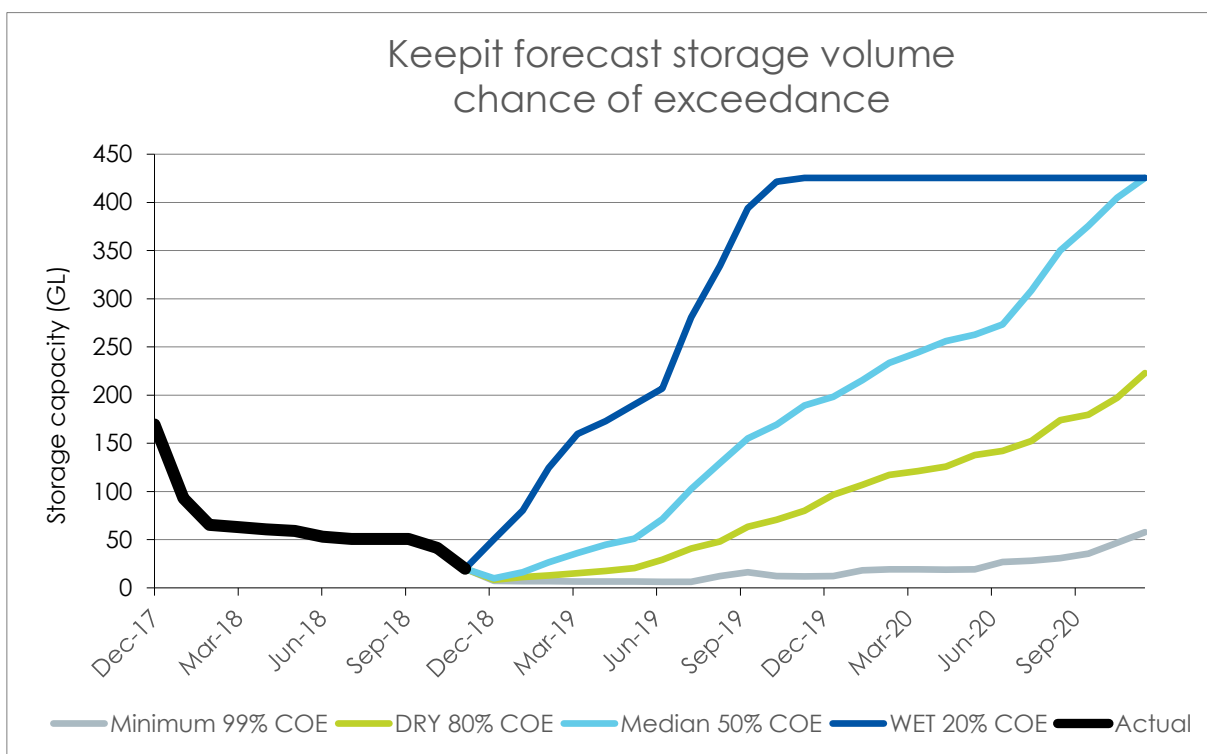
#### Operating conditions

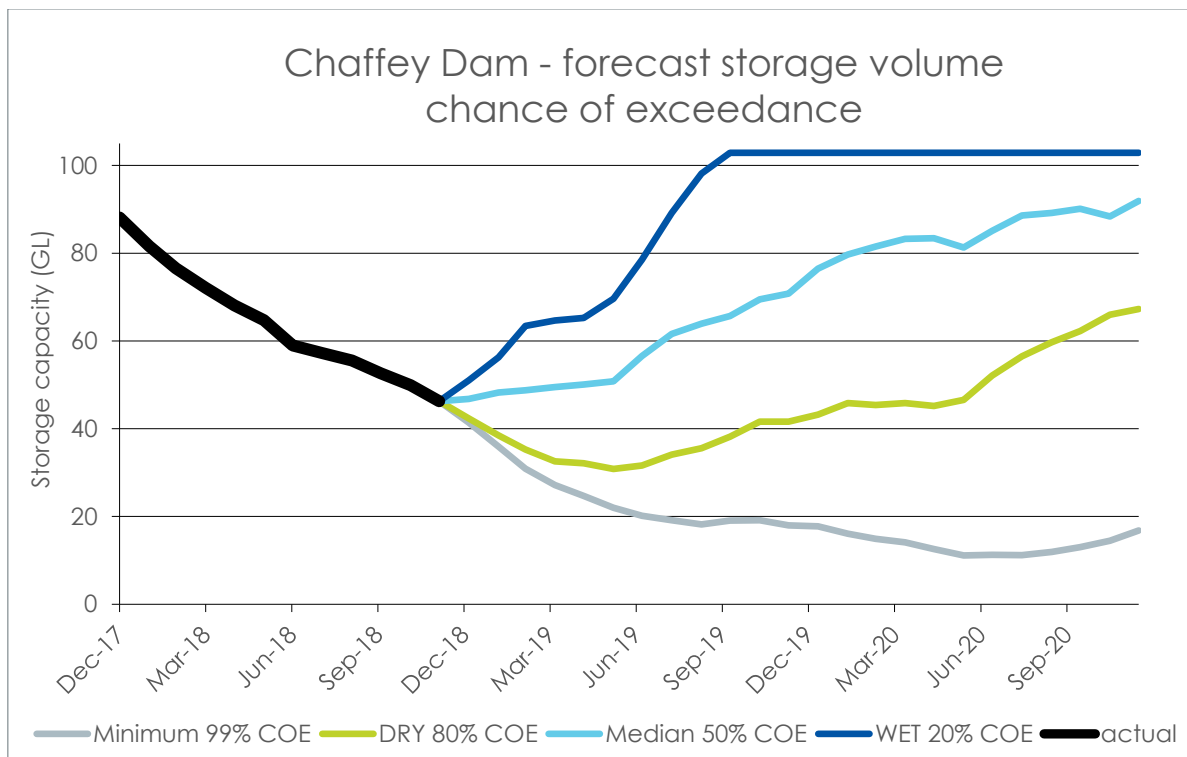
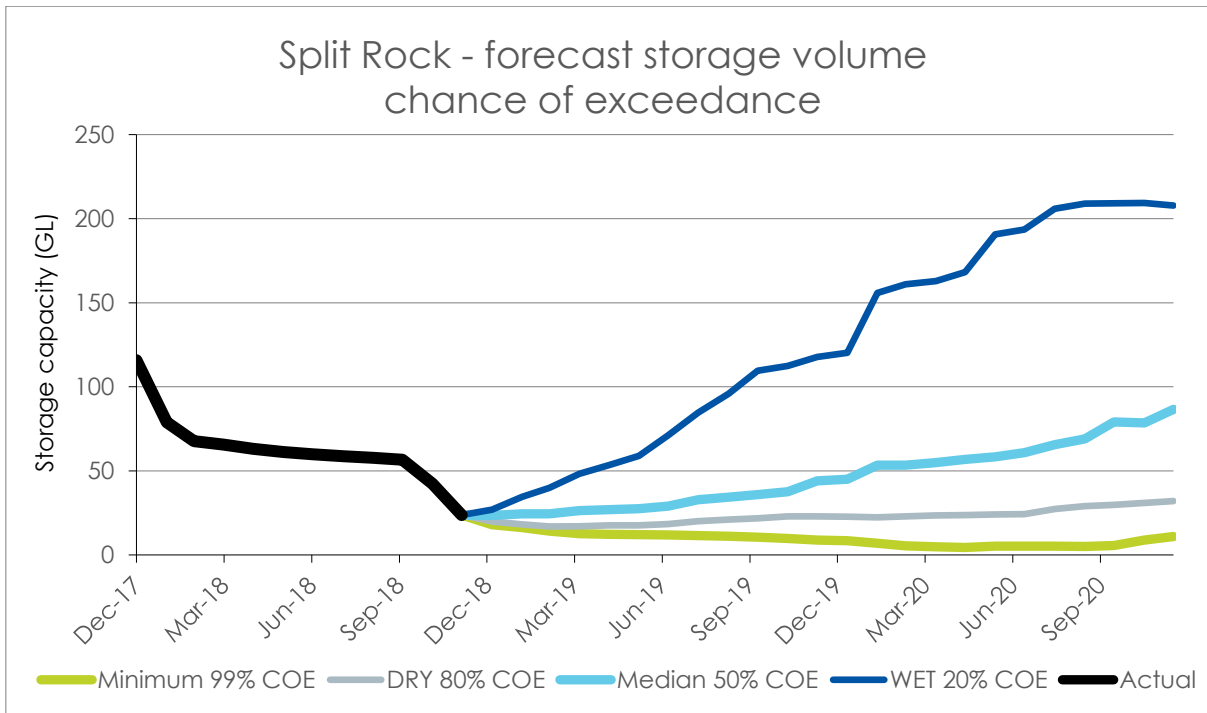
- This season's block release from Keepit to the Lower Namoi has now ceased, however the delivery of water to downstream locations will continue over the next two weeks. The Temporary Water Restriction was relaxed on 27 November enabling the delivery of 100% of Lower Namoi orders placed by 5<sup>th</sup> November. At the time of writing, the remainder of the restrictions are in place meaning that no further water orders can be placed after 5<sup>th</sup> November and the restrictions on trade still apply. The delivery of general security water is being made only to the Namoi River upstream of Gunidgera Weir, and to the Pian Creek upstream of Greylands Weir.
- An expression of interest has been called to distribute any water that may become available. This will only be possible if the restrictions are lifted. [EOI](#)
- The initial Available Water Determinations (AWD) for the Lower Namoi are 100% for towns and high security, while general security is zero. Carryover into 2018-19 was estimated to be approximately 19% of general security share components.

- The initial Available Water Determinations (AWD) for the Upper Namoi are 100% for towns, high security, and general security.
- The initial Available Water Determinations (AWD) for the Peel are 100% for towns and high security, while general security initially was 29%, with an increase in October to a total of 38%.
- Maximum temperatures during the week are forecast to exceed 40 degrees in some parts of the catchment.
- No flow has been present in the Namoi River at Walgett (Station No 419091) since March 2018.
- The Pian Creek replenishment flow is not able to be delivered in the usual manner so, unless conditions improve, other supply arrangements will need to be made.
- Supply on demand applies for the Upper Namoi and the Peel Valley.
- Recent sampling for BGA indicates that Keepit Dam and Chaffey Dam are on a green alert while Split Rock Dam is on amber alert.

**Planned supply interruptions:**

- Mollee fish way is currently unavailable due to infrastructure failure.







## 6.2 Gwydir valley

### Storage status

- Copeton Dam is at 18% of active capacity.

### Predicted release patterns

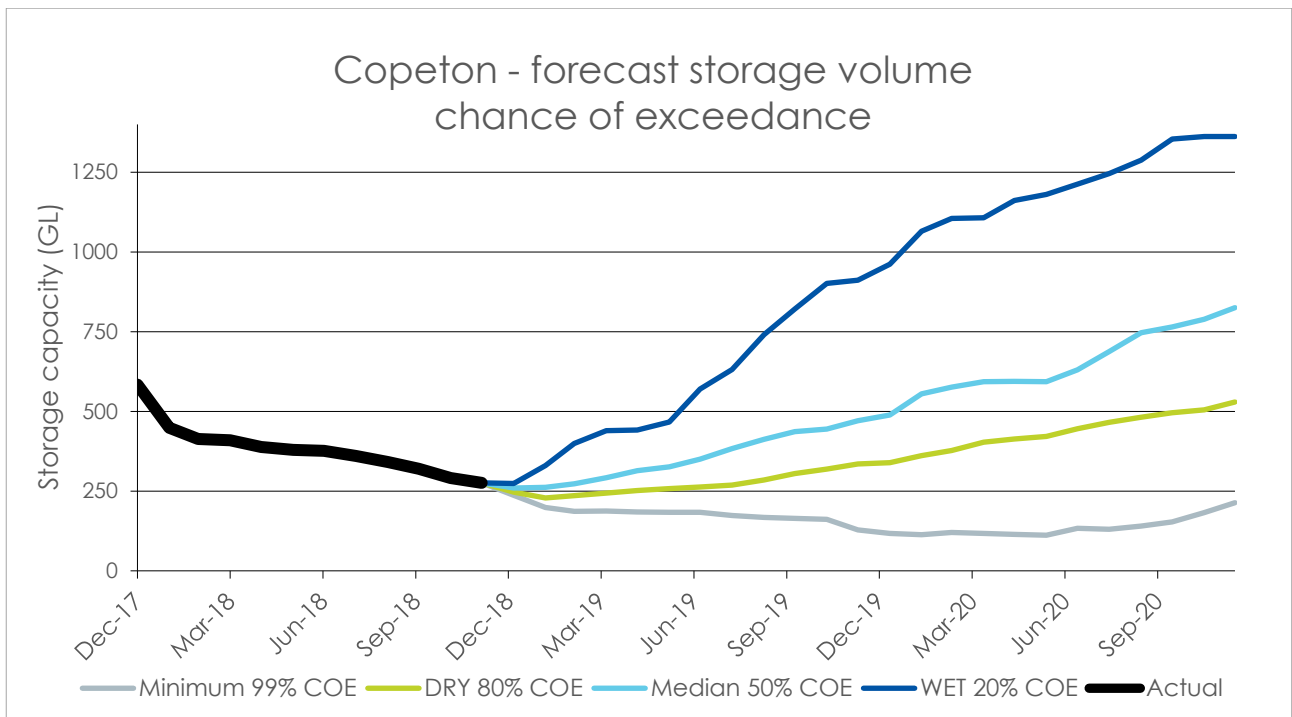
- Copeton Dam is currently releasing around 900 ML/day and this is expected to be reduced to around 600 to 800ML/d during the week following changes in orders and the block release to Carole Creek.

### Operating conditions

- Block releases for the western effluent streams are scheduled. See updated [Customer Notice](#).
- The initial Available Water Determinations (AWD) are 100% for towns and high security, while general security is zero. Total carryover into 2018-19 was estimated to be up to 22% of general security share components.
- Maximum temperatures during the week are forecast to reach around 40 degrees in some parts of the catchment.
- Carryover of general security for industry production was limited to roughly 40 GL (about 8% of general security share components).
- Carryover of general security for environmental use is roughly 71 GL (about 14 % of general security share components), in addition roughly 75 GL is available for the Environmental Contingency Allowance (ECA).
- The first of two planned 30GL ECA deliveries are complete and flows have recommenced to the Gingham.
- The 10GL CEWO (Commonwealth Environmental Water Office) Mallowa Creek deliveries are underway, and flow has reached the targets at the end of system. Flows have been reduced to about 50ML/d.
- Recent Blue Green Algae (BGA) sampling at Copeton shows Copeton at green alert level.

### Planned supply interruptions:

- No supply interruptions are expected.





## 6.3 Border rivers

### Storage status

- Pindari Dam is at 35%, and Glenlyon is at 35% of active capacity.

### Predicted release patterns

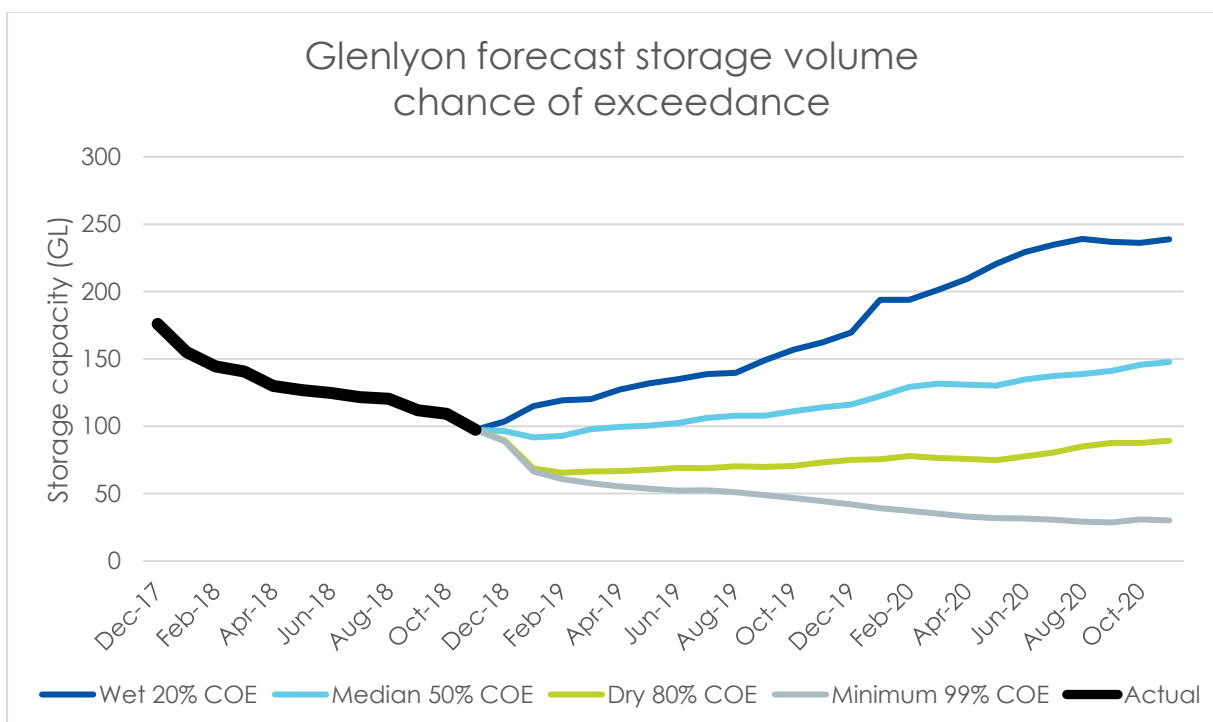
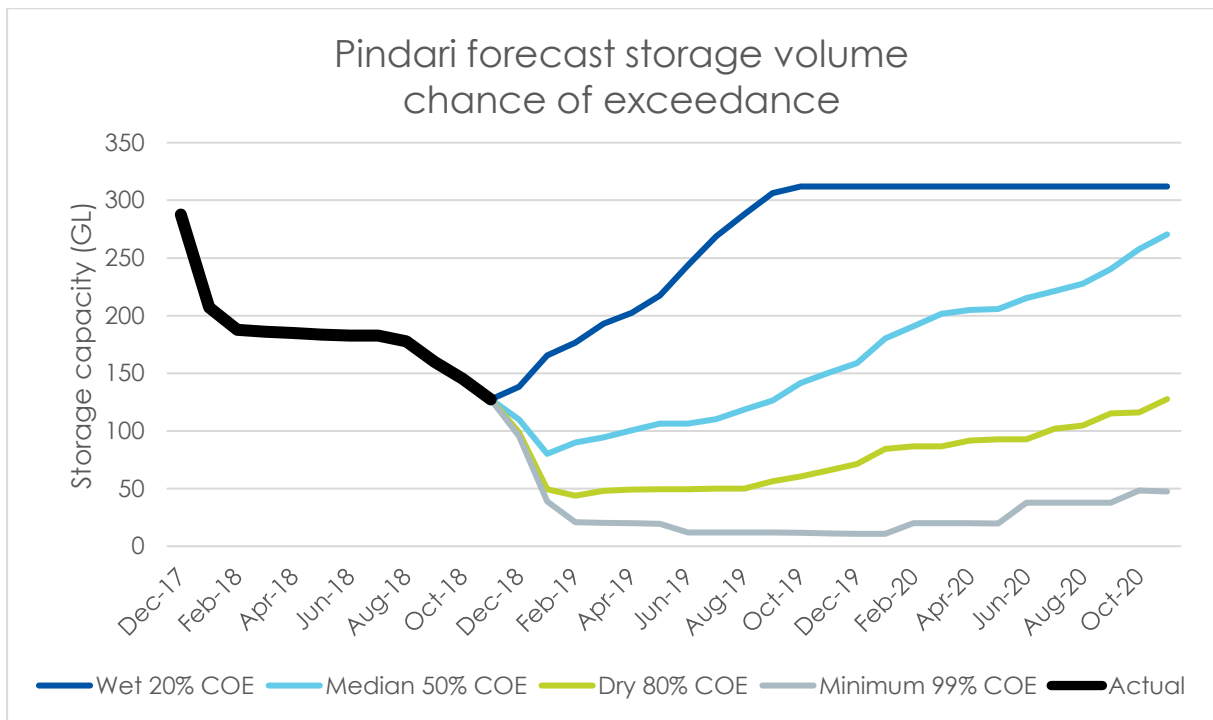
- Pindari Dam releases will be approximately 500 ML/day this week.
- Glenlyon Dam is to continue to release around 325 ML/day.

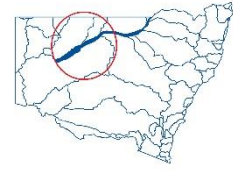
### Operating conditions

- Water deliveries west of Boomi have recommenced and will be grouped together and a shortened release period will be implemented to ensure efficient deliveries during the 2018/19 growing season.
- The Available Water Determinations (AWD) are 100% for towns and high security, while general security A is 32.8% and general security B is zero. Total carryover into 2018-19 is around 53% of general security share components.
- Maximum temperatures during the week are forecast to reach 40 degrees in some parts of the catchment.
- Some rainfall was observed during last week. No rainfall is forecast for this week.
- Releases from Boggabilla Weir are currently around 1,320 ML/day and may change frequently depending on downstream orders.
- Recent Blue Green Algae (BGA) sampling at Pindari shows that Pindari alert level is changed from red to amber.

### Planned supply interruptions:

- No supply interruptions are currently forecast.





## 6.4 Barwon-Darling River system

### River flow status

- River system from Mungindi to Wilcannia is currently at cease to flow condition except Geera.
- Geera is receiving water from Macquarie valley Environmental flows.

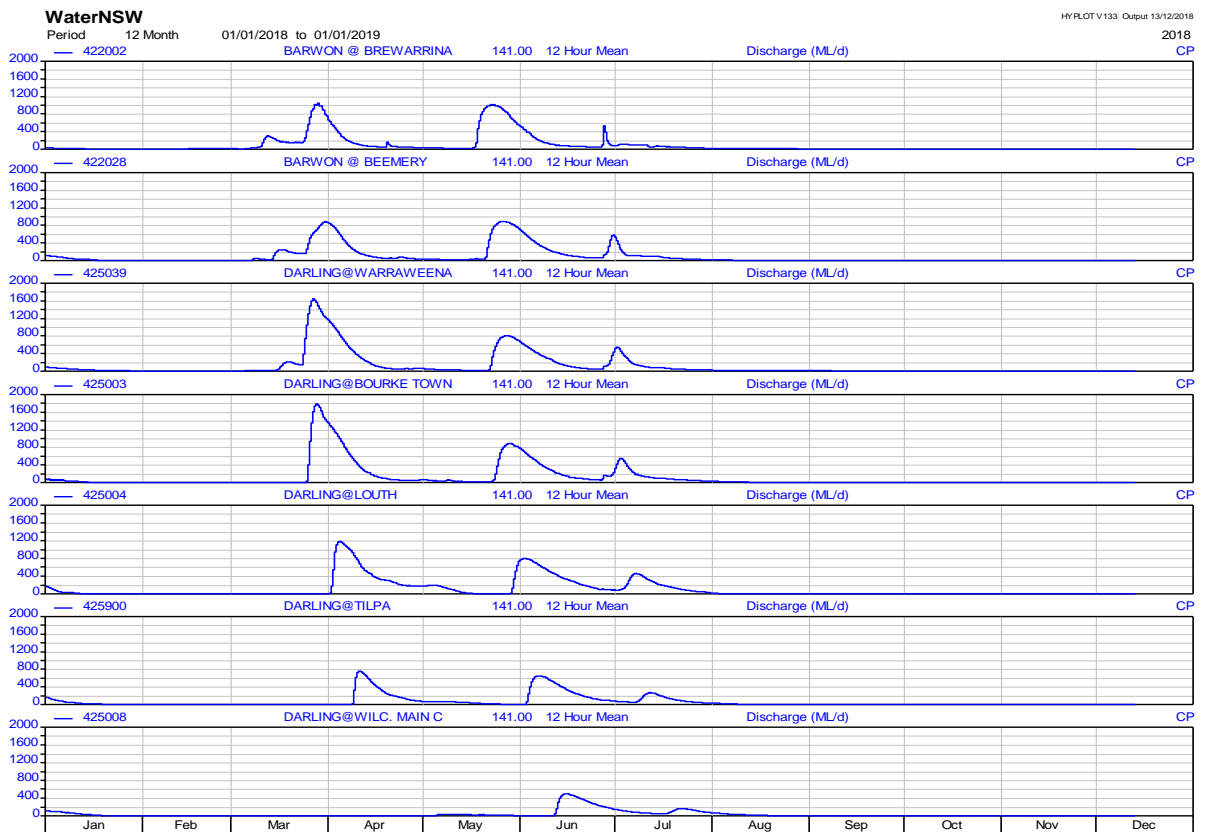
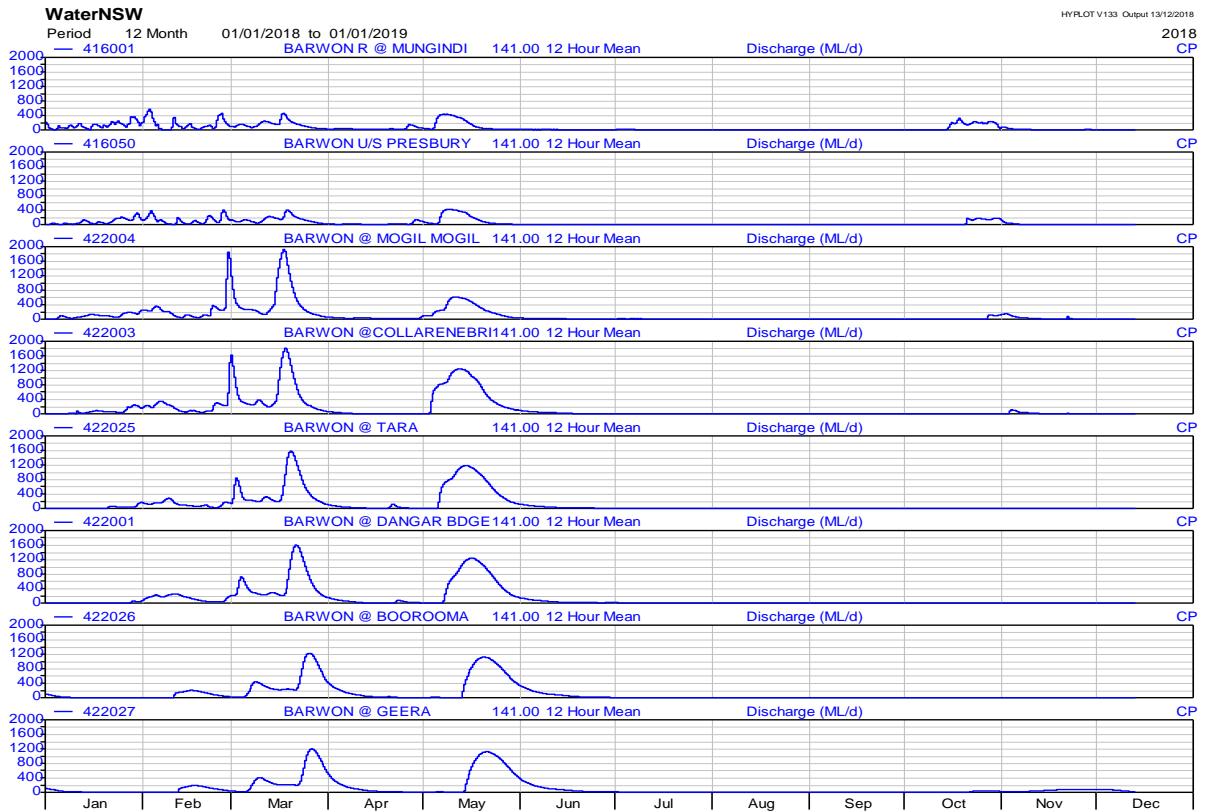
### Predicted Flow Patterns

- The flows at Geera is now receding as the Macquarie Valley environmental releases to the Macquarie Marshes, at Marebone Weir, ceased on 11 December 2018.
- Flows in the river system from Mungindi to Wilcannia (except Geera) are forecast to remain at cease to flow until there is a significant rainfall event.
- Weir pool levels are expected to continue to fall due to evaporation, town water use and Basic Landholder Rights extractions.

### Operating conditions

- Below are the river management zones and access availability using daily average data to 6 am, these are provided as an indication only and access may have changed during the 24-hour period.

River section	Gauging station	Classification						
		10-12-18	11-12-18	12-12-18	13-12-18	14-12-18	15-12-18	16-12-18
Mungindi to Boomi river conf	416001 - 416050	No access	No access	No access	No access	No access	No access	No access
Boomi river confluence to U/S Mogil Mogil Weir	416050 - 422004	No access	No access	No access	No access	No access	No access	No access
Mogil Mogil Weir	422004	No access	No access	No access	No access	No access	No access	No access
D/S Mogil Mogil to Collarenebri	422,004- 422003	No access	No access	No access	No access	No access	No access	No access
Collarenebri to U/S Walgett Weir	422003 - 422025	No access	No access	No access	No access	No access	No access	No access
Walgett Weir	422001	No access	No access	No access	No access	No access	No access	No access
D/S Walgett to Boorooma	422001- 422026	No access	No access	No access	No access	No access	No access	No access
Geera to Brewarrina	422027- 422002	No access	No access	No access	No access	No access	No access	No access
Brewarrina to Culgoa river junction	422002- 422028	No access	No access	No access	No access	No access	No access	No access
Culgoa river junc to Bourke	425039- 425003	No access	No access	No access	No access	No access	No access	No access
Bourke to Louth	425003- 425004	No access	No access	No access	No access	No access	No access	No access
Louth to Tilpa	425004- 425900	No access	No access	No access	No access	No access	No access	No access
Tilpa to Wilcannia	425900- 425008	No access	No access	No access	No access	No access	No access	No access
Wilcannia to U/S Lake Wetherell	425008	No access	No access	No access	No access	No access	No access	No access



# 7. Coastal valley based operational activities

## 7.1 Bega river

### Storage status

- Brogo Dam: 68%



### Predicted release patterns

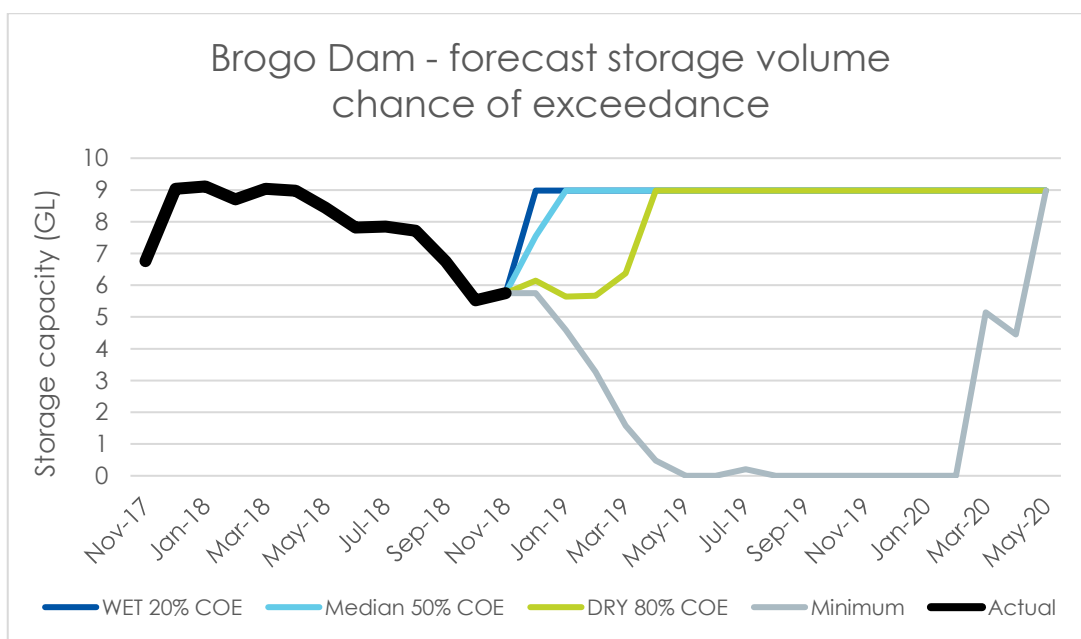
- Releases are currently at 15 ML/day via valves and likely to remain around this level during the week.

### Operating conditions

- Regulated conditions are returning throughout the system after last week's rain.
- Uncontrolled access currently on section 2.
- Around 45mm rain has been observed during the last week.
- Around 2 to 8 mm rain is forecasted in this week.
- Maximum temperatures are forecast to be around mid-20 degrees and minimums around early 10 degrees.
- Recent BGA sampling at Brogo indicates a green alert level is maintained.

### Planned supply interruptions:

- Nil



## 7.2 Hunter valley

### Storage status

- Glenbawn Dam: 61%
- Glennies Creek Dam: 62%
- Lostock Dam: 100%



### Predicted release patterns

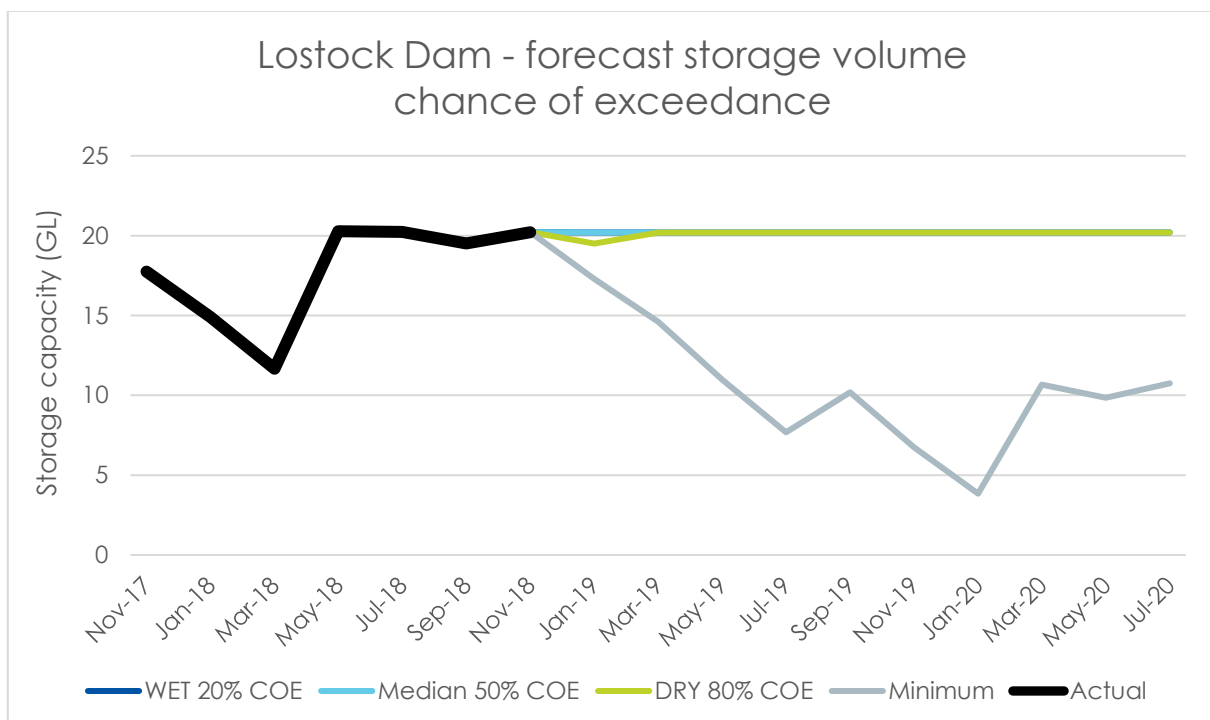
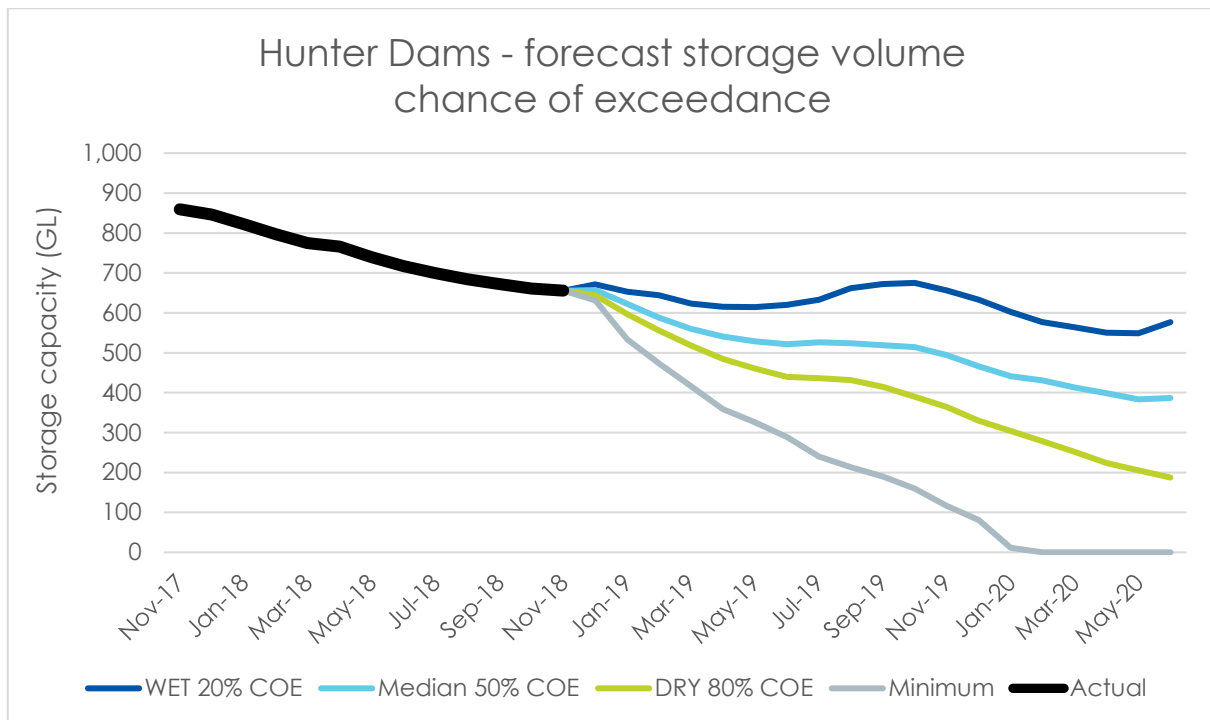
- Glenbawn Dam releases are currently around 700 ML/d and are likely to remain around this rate during the week.
- Glennies Creek Dam releases have been reduced to 20 ML/d, however they will be increased to 100 ML/d on Tuesday and are likely to remain around this rate during the week.
- Lostock Dam is currently spilling.
- Supplementary access is available in the Paterson system.

### Operating conditions

- Around 20 – 40 mm rain has been observed in the last week.
- No significant rain is forecasted in this week.
- Maximum temperatures are forecast to be around early-30 degrees and minimums around mid-10 degrees.
- Recent BGA sampling at Hunter storages indicates a green alert is maintained at Glenbawn and Glennies Creek and Lostock.

### Planned supply interruptions:

- Nil





### 7.3 Toonumbar Dam

#### Storage status

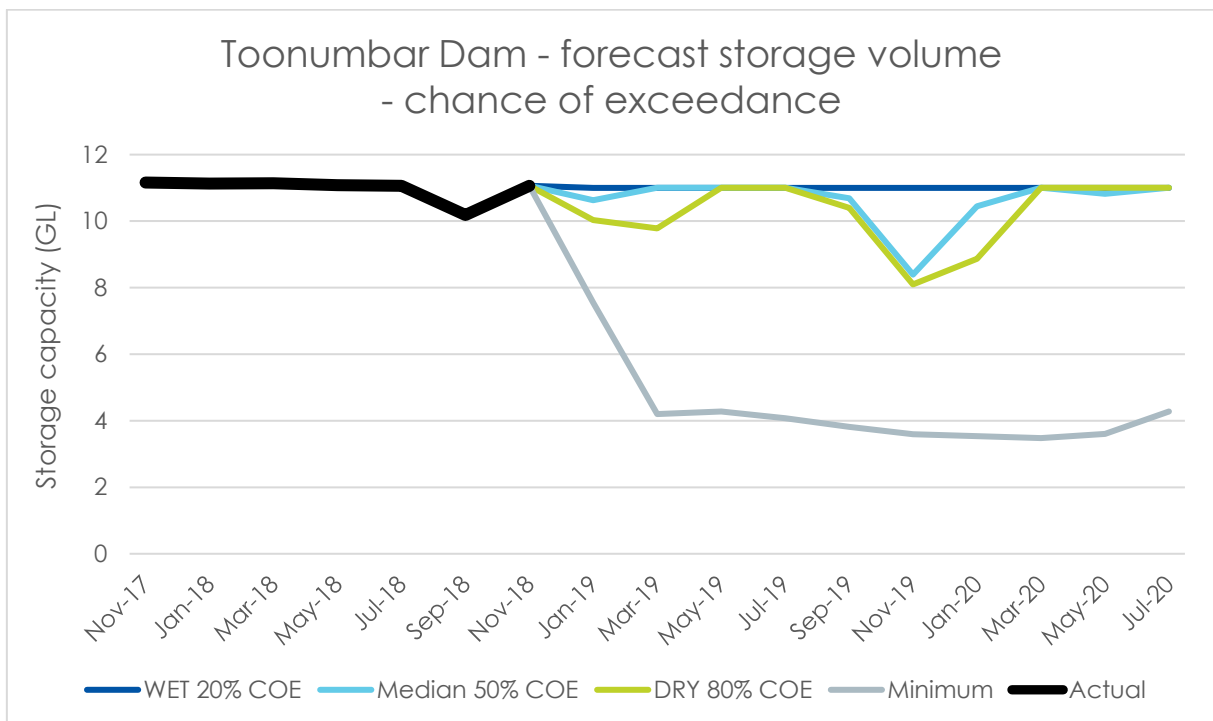
- Toonumbar Dam: 96%

#### Predicted release patterns

- Toonumbar Dam is currently releasing 18 ML/d.

#### Operating conditions

- Recent BGA sampling at Toonumbar indicates that a green level is present.



#### Planned supply interruptions:

- Nil

## Rural dam levels

The following table shows the status of water supplies at 17 December 2018.

River Valley	Capacity	Current Status		Weekly change (GL)	Comments	Likelihood	Allocations for 2018/19		
		% of active capacity	Active (GL)				Supply Issues	of fill and spill	High Security
<b>Border Rivers</b>									
Glenlyon Dam, Stanthorpe	254	35%	90	-2	Regulated releases	<20%	100%	2.7%	53%
Pindari Dam, Inverell	312	35%	109	-8	Regulated releases	<20%	100%	2.7%	53%
<b>Gwydir Valley</b>									
Copeton Dam, Inverell	1346	18%	241	-4	Regulated releases	<5%	100%	0%	22%
<b>Namoi Valley</b>									
Keepit Dam, Gunnedah	419	0%	1	-2	Releases ceased	<20%	100%	0%	19%
Split Rock Dam, Manilla	394	5%	18	0	Regulated releases	<5%	100%	100%	N/A
Chaffey Dam, Tamworth	98	43%	42	-0	Regulated releases	<50%	100%	38%	N/A
<b>Macquarie Valley</b>									
Burrendong Dam, Wellington	1155	16%	185	-11	Regulated releases, restricted c/over	<20%	100%	0%	52%
Windamere Dam, Mudgee	367	39%	141	-0	Regulated releases	<5%	100%	0%	102%
<b>Lachlan Valley</b>									
Wyangala Dam, Cowra	1216	47%	568	14	Regulated releases	<20%	100%	0%	62%
Carcoar Dam, Carcoar	36	44%	16	0	Regulated releases	10%	100%	0%	67%
<b>Murrumbidgee Valley</b>									
Burrinjuck Dam, Yass	1025	44%	451	23	Transparent releases	25%	95%	7%	22%
Blowering Dam, Tumut	1604	48%	774	12	Irrigation & eWater	20%	95%	7%	22%
<b>Murray Valley</b>									
Dartmouth, Mitta Mitta (Vic)	3837	71%	2718	-38	Transfers to Hume	N/A	N/A	N/A	N/A
Hume Dam, Albury	2982	41%	1229	31	Irrigation, eWater & L Vic	<25%	97%	0%	31%
<b>Lower Darling</b>									
Menindee Lakes, Broken Hill	1684	2%	38	-5	Releases to fill temporary block banks	N/A	100%	0%	15%
<b>Hunter Valley</b>									
Glenbawn Dam, Scone	750	61%	456	-2	Regulated releases	20%	100%	100%	21%
Glennies Ck Dam, Singleton	282	62%	176	-0	Regulated releases	20%	100%	100%	21%
Lostock Dam, Gresford	20	101%	20	0	Spill	100%	100%	100%	N/A
<b>Coastal Area</b>									
Toonumbar Dam, Kyogle	11	96%	10	-0	Regulated releases	100%	100%	100%	N/A
Broggo Dam, Bega	9	68%	6	0	Regulated releases	80%	100%	30%	N/A
<b>TOTALS</b>	<b>17,798</b>	<b>41.0%</b>	<b>7291</b>	<b>8</b>					

WaterNSW has water resources in Dartmouth, Hume and Glenlyon Dams. TWS = Town Water Supplies

1 Gigalitre (GL) = 1,000 Megalitres (ML) 1 ML = 1,000,000 litres

## More information

Subscribe to our customer information (weekly water availability reports, e-newsletters, etc.) at [waternsw.com.au/subscribe](http://waternsw.com.au/subscribe).