

Regional water availability report

Weekly edition
21 January 2019

Contents

1. Overview	3
2. System risks	3
3. Climatic Conditions	4
4. Southern valley based operational activities	7
4.1 Murray valley	7
4.2 Lower darling valley	10
4.3 Murrumbidgee valley.....	10
5. Central valley based operational activities	16
5.1 Lachlan valley	16
5.2 Macquarie valley.....	16
6. Northern valley based operational activities	22
6.1 Namoi valley	22
6.2 Gwydir valley	26
6.3 Border rivers.....	28
6.4 Barwon-Darling River system.....	30
7. Coastal valley based operational activities	33
7.1 Bega river	33
7.2 Hunter valley	34
7.3 Toonumbar Dam.....	36
Rural dam levels	37

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 21 January 2019 was 35.2% of the total active storage capacity. This was a decrease of 1.1% from last week.

The total storage level of urban water supplies on 21 January 2019 was 60.3% of the total storage capacity. This was a decrease of 0.5% since last week.

2. System risks

- 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 January 2019. Releases from Lake Pamamaroo, and filling these banks, have ceased. Cease to flow, between these banks, has now commenced. The cease to flow conditions increase the possibility of decreasing water quality and fish kills, with increases in; salinity, pH and Algae, and reduced dissolved oxygen.
- In the Lower Namoi, releases from Keepit Dam have ceased as the single block release strategy from October through to December 2018 is now complete. Cease to flow conditions now extend from downstream of Keepit Dam and for the majority of the Namoi River downstream of Narrabri.
- 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 49 GL. This is only 26% of the previous record low inflow of about 189GL for the 17 months ending in December.
- Due to drought conditions, end of system daily environmental flow requirements in the Belubula River are being met intermittently, and customers are regularly advised of rescheduling requirements.
- Cease to flow conditions continue in the Barwon Darling system as it remains dry.

- 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.
- Lower Murrumbidgee: In view of the emergent wider system need to target water quality issues, NSW environmental water holder is planning to target additional flows at Balranald over the next few weeks starting early February to increase flow velocities, fish habitat and reduce BGA counts in the lower Murrumbidgee system below Hay Weir.

3. Climatic Conditions

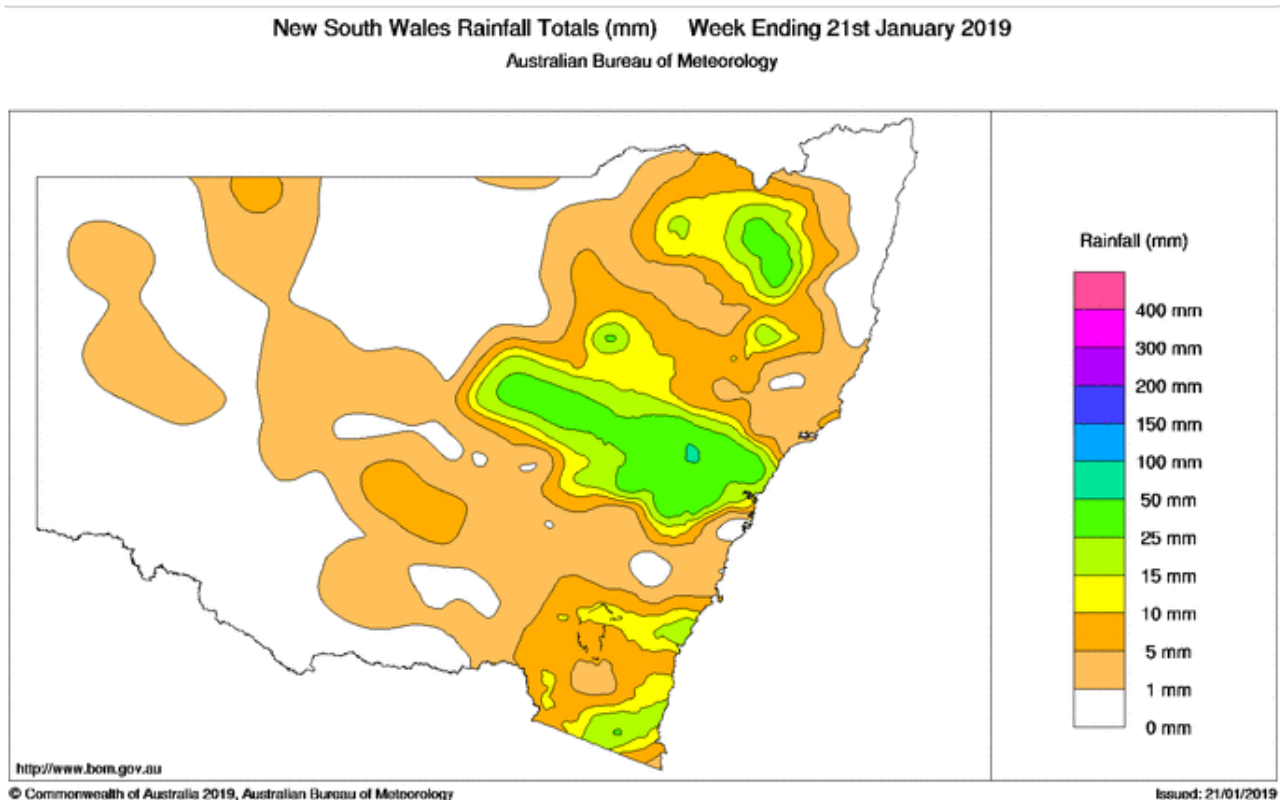


Figure 1 - Weekly rainfall totals for New South Wales

Rainfall of around 25mm was received in the Northern Tablelands, South Coast and the Snowy Mountain regions of New South Wales. Scattered rainfall of around 1mm was seen in parts of the state, but most of the state remained dry.

This week's weather forecast

A high-pressure system over the Tasman Sea is weakening, while a trough lies over northeast New South Wales, and another over the western inland. Warm and humid air feeding into these troughs will lead

to unsettled weather in many central and eastern districts. A new high, currently in the Bight, is forecast to shift to the Tasman Sea by late Monday, with hot conditions extending eastwards and heatwave conditions escalating through the coming week.

The mid North Coast, Hunter and Northern Tablelands regions are forecast to receive up to 25mm in the first part of the week. Central to eastern parts of the state are forecast to receive up to 5mm. The western part of the state is forecast to remain dry. For the later part of the week, rainfall is forecast again for the central to eastern parts of the state, but only 1 – 5mm. The western parts of the state are again forecast to remain dry.

High temperatures are forecast for the upcoming week. The eastern parts of the state will see temperature up to 36 degrees for most of the week. North western parts of the state will see temperatures soar to up to 45 degrees. The remainder of the state should see temperatures up to 42 degrees.

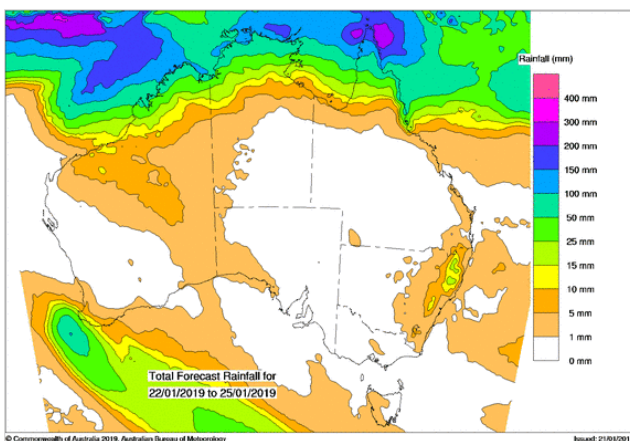


Figure 2a – First 4-day Forecast (22 - 25 Jan 19)

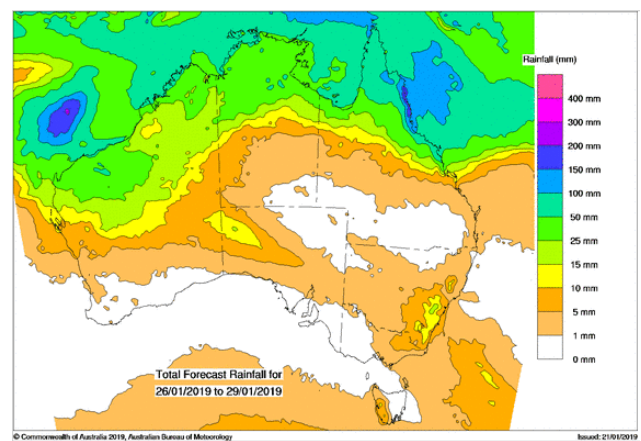


Figure 2b – Following 4-day forecast (26 - 29 Jan 19)

February to April is likely to be drier than median for the eastern parts of NSW. For the remainder of the state, there are roughly equal chances of a wetter or drier three months, i.e., no strong tendency towards a wetter or drier than median season ahead.

Historical outlook accuracy for February to April is moderate across most of NSW.

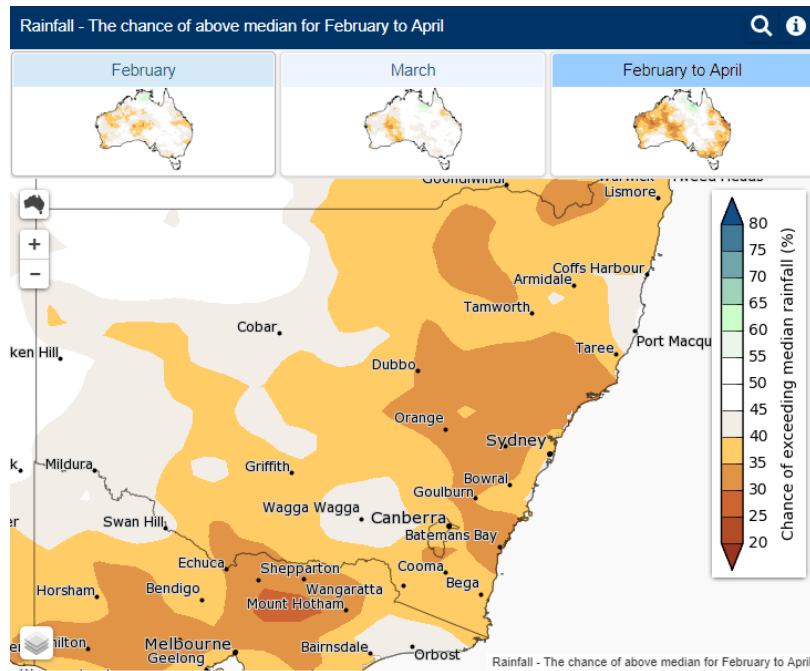


Figure 3 – 3-month rainfall outlook

4. Southern valley based operational activities

4.1 Murray valley



Storage and release status

- Hume Dam is currently 34% of active capacity, releasing about 13,600ML/d. Releases from Hume Dam are forecast to remain relatively steady this week.
- Release downstream of Yarrawonga Weir is within channel capacity at about 9,000ML/day and is likely to remain steady.
- 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 320ML/d and will remain below the channel capacity of 350ML/day.
- Stevens Weir level is about 4.54m to manage the level upstream of Wakool Canal offtake, which is about 1.82m. The weir was managed to marginally rise in view of the Wakeboard event at Deniliquin during the last weekend. Flow downstream of Stevens Weir is about 2,650ML/day and is expected to remain relatively steady.
- Flows in the Colligen Creek (440ML/day), Yallakool Creek (460ML/day) and Wakool River (70ML/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 being maintained at about 600ML/day in the Wakool system.
- Supply through Perricoota Escape (90ML/day) and Wakool Escape (50ML/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 530 ML/d and is likely to vary between 450 and 500 ML/day over the week.
- Merran Creek flows upstream of its confluence with Wakool is about 50ML/day and is likely to vary marginally.
- Flow in Wakool River at Stoney Crossing is currently at about 930ML/day and is likely to gradually fall to about 800ML/day over the next couple of weeks.
- Flows at Balranald are currently about 340ML/day. The trial by NSW environmental water holder has now ceased the delivery will return to the base flows of about 200ML/day over this week.

- Lake Victoria is currently holding about 439 GL or 59% of active capacity. The flow to South Australia is about 7,400ML/d.

Environmental water operations

- Returns to Edward River upstream of Toonalook from the environmental water delivered into the Barmah – Millewa forest has ceased. The combined flows from Edward Offtake, Gulpa Creek regulator and the forest inflows produce up to 1,750ML/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.

Water availability

- The latest Water Allocation Statement by DOI-Water confirmed that the general security allocation of zero, while Available Water Determinations (AWD) are 100% for towns, 97% for high security, and 50% for Conveyance. Average carryover into 2018-19 is estimated to be about 31% of general security share components.

Drought operation measures

- System inflows over the last six months of this water year (July to December) have been tracking in the lowest 9 per cent of historical record. However, the NSW share of system inflows has been much less than Victoria's, meaning that the NSW resource has tracked drier than overall system inflows over this period. At this time of year, resource improvements must be used to ensure next year's (2019/20) high priority commitments before further allocating to general security users.
- 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 of about 200GL for delivery of next year's high priority needs, but recovery is highly likely through autumn and winter inflows.

Water quality

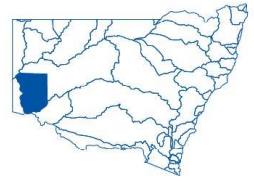
- Potential Blue Green Algae issues:
 - There is a new RED ALERT for [Lake Hume](#).
 - The RED alert continues for Mannus Lake near Tumbarumba and downstream for Mannus Creek.

- The RED ALERT in the Lower Murray River has been extended from Karadoc in the Mildura weir pool, downstream to include Lock 9. See results in Table 2 below, which are being monitored by Lower Murray Water.
- For more information visit: [Water Quality Algae](#)

Planned supply interruptions:

- None.

4.2 Lower Darling valley



Storage and release status

- The lakes currently hold about 1% of active capacity. The total storage is about 47 GL.
- Lake Cawndilla is currently dry, while Lake Menindee has been dry since 6 Feb 2018.
- Lake Tandure is below active storage levels from end of November 2018
- Releases from Lake Pamamaroo have now ceased due to water quality issues.
- Currently a release of about 50ML/day from Lake Wetherell to maintain a minimal flow in the river from Weir 32 to the temporary block bank at Karoola.
- Current level at the block bank near Karoola is about 2.75m and falling slowly, while water is being passed downstream to fill three private banks. The pipes in the Karoola bank will be closed as inflows reduce.
- Current level at the block bank near Jamesville is about 2.99m, The pipes at the bank are closed.
- Current level at the block bank near Ashvale is about 0.39m. The pipes at the bank are closed.
- The average pan evaporation rate at Menindee over the last week was about 16.6 mm/d equivalent to about 7,400ML from the lakes over the week.

Water availability

- 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 Operations Plan until the storage volume next exceeds 640GL. For more information visit: [Lower-Darling Operational Plan](#).

Drought operation measures

- 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.

- Four temporary block banks viz. Karoola, Court Nareen, Jamesville and Ashvale have been constructed to extend supply to domestic, stock and permanent plantings.
- Pumping from Lake Pamamaroo to top-up Copi Hollow ceased on 10/12/18.
- Pumping by Essential Water to town water supply to Broken Hill has now been shifted to Copi Hollow.

Water quality

- The RED ALERT continues for Lake Wetherell, Lake Tandure, Lake Pamamaroo, Copi Hollow, Lake Cawndilla Outlet and for the Darling River from Louth downstream to Tolarno and at Burtundy
 - Media release: [Water Quality Algae.](#)

Planned supply interruptions:

- None.

4.3 Murrumbidgee valley



Storage and release status

- Burrinjuck Dam is currently at 41% of active capacity, releasing about 4,000 ML/d. The release is expected to remain relatively steady this week
- Blowering Dam is currently at 34% of active capacity, releasing about 5,000 ML/d and the release is expected to remain relatively steady this week.
- The Beavers Creek Offtake is targeting a flow of at least 60ML/day in January at Kywong.
- Berembed Weir is currently at about 4.96m and is likely to remain steady.
- Bundidgery storage is currently at 3.8m and will be actively used for re-regulation of flows and hence the level is likely to fluctuate between 3.4m and 4.2m over this week.
- 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 0.78m and release from the storage has ceased in view of the algal report received on 18/1/2019.
- Hay Weir is currently at about 7.7m and is likely to remain to relatively steady.
- The current diversion into Yanco Creek is about 350 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.
- Delivery to Yanco-Billabong system via Coleambally Irrigation Escapes (CCD and DC800) is about 210ML/day.

Environmental water operations

- Maude Weir is currently at 5.85m and will be maintained relatively steady. The weir is being used to deliver environmental water orders of about 400ML/day into South Caira channel until 25th of January. The water in the weir will then be used for downstream demands, drawing down on the weir in the next few weeks.
- Redbank Weir is at about 5.42m to supply environmental water to Yanga wetlands until early February. The environmental delivery to Patterson's Pipe that commenced on 29 November is expected to continue until late January. The Redbank Weir will be drawn down on the completion of the delivery to Lowbidgee via Yanga Regulator.

- Flows at Balranald are currently about 340ML/day. The trial by NSW environmental water holder for improving the water quality at Balranald has now ceased and the flow is forecast to return to the base flows of about 200ML/day over this week.
- Lower Murrumbidgee: In view of the emergent wider system need to target water quality issues, NSW environmental water holder is planning to target additional flows at Balranald over the next few weeks starting early February to increase flow velocities for fish habitat and to reduce BGA counts in the lower Murrumbidgee system below Hay Weir.

Water availability

- For Inter Valley Transfer (IVT) account from Murray to Murrumbidgee refer to WaterNSW website [IVT Ordering](#).
- The latest Water Allocation Statement by DOI-Water confirmed the Available Water Determinations (AWD) are 100% for towns and 95% for high security, while general security is now 7%. Carryover into 2018-19 is a volume equivalent to 22% of general security share components

Drought operation measures

- As per the NSW Extreme Events Policy 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 at least 120,000 ML.

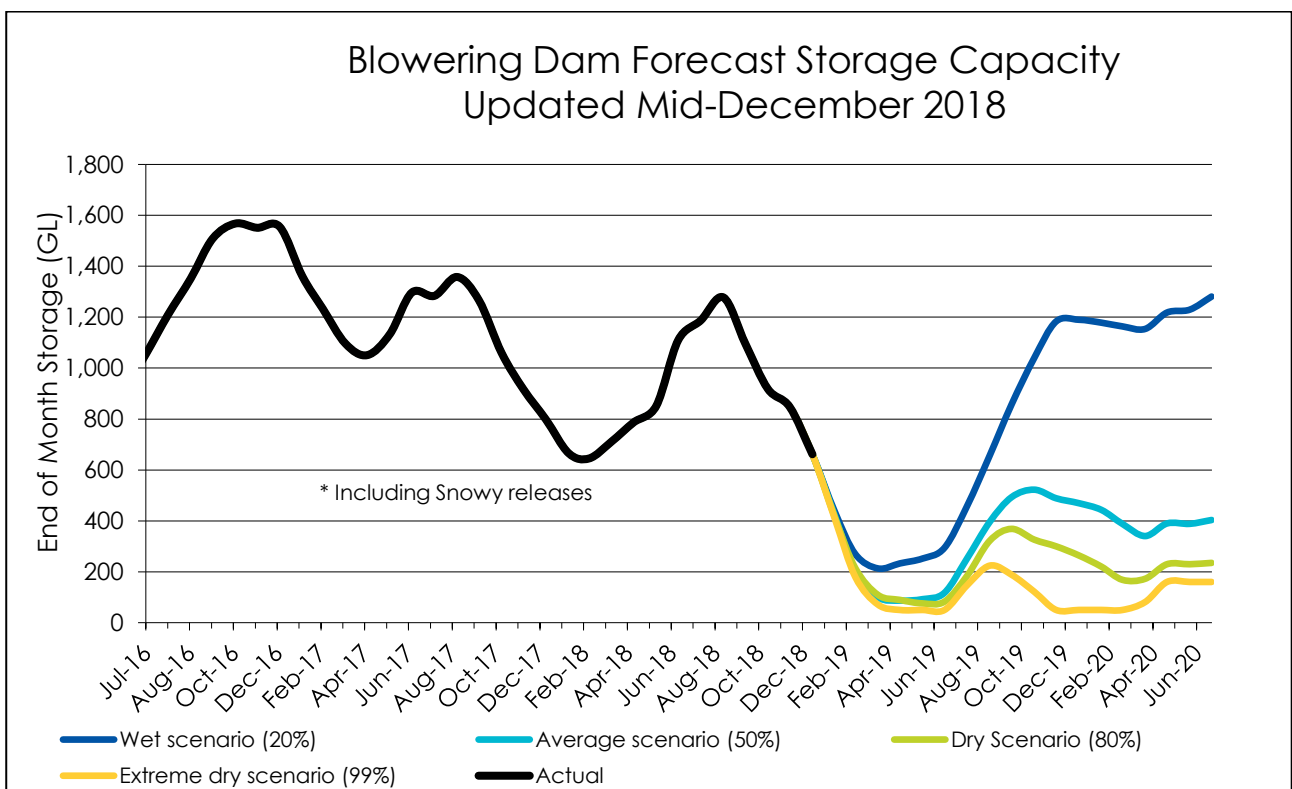
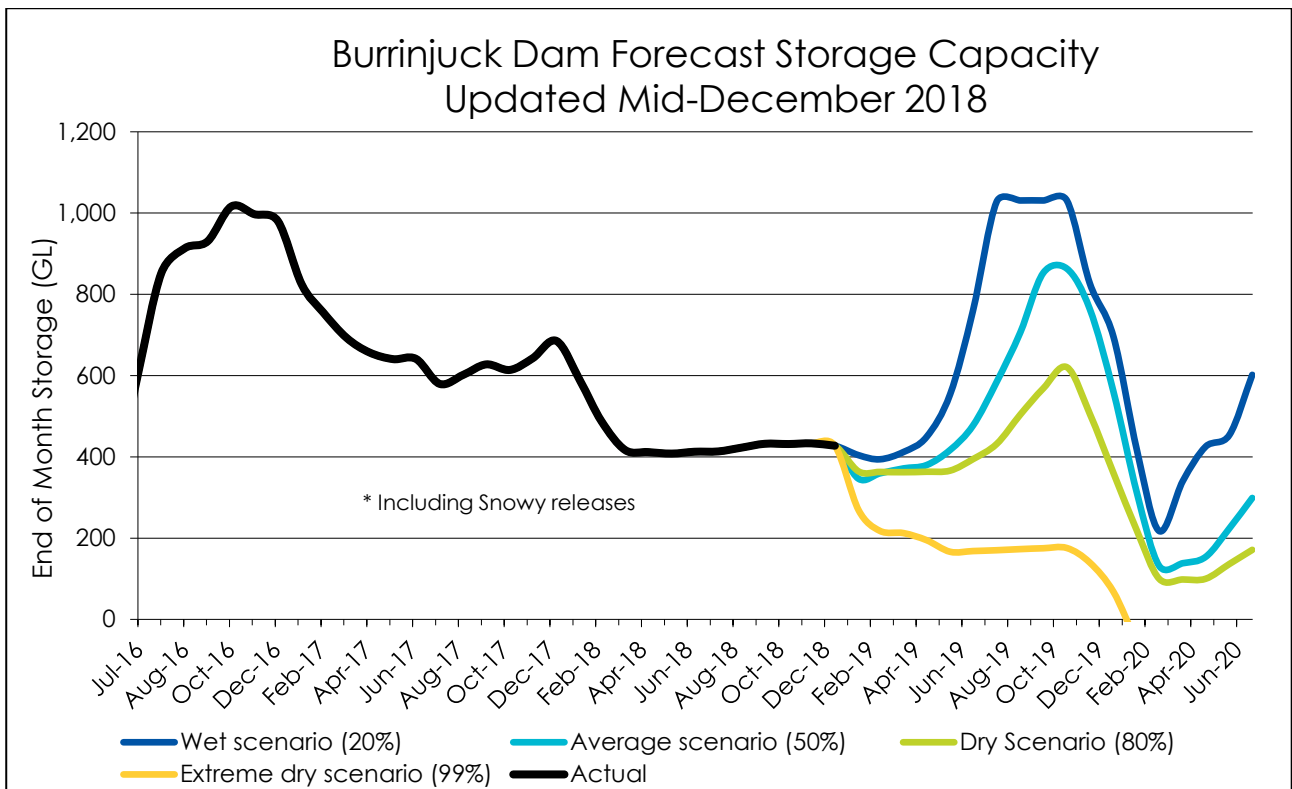
Water quality

- Potential Blue Green Algae issues:
 - Green alerts are current for Burrinjuck Dam at Woolgarlo and Burrinjuck Downstream sites.
 - Tom Bullen outlet upstream in weir, the whole of the Hay weir pool at Hay, Murrumbidgee River at Maude Weir Buoy and Murrumbidgee River at Redbank Weir Buoy have a Red alert status.
 - [Lake Wyangan North](#) in Griffith and [Lake Albert in Wagga Wagga](#) also have a Red alert status.
 - The Murrumbidgee River at Balranald has an amber 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 is team is awaiting a suitable window of low flows.

- Planning is underway for installation a new gate at Spillers Regulator at the Washpen Creek; awaiting a suitable low flow condition.
- Nimmie-Caira offtake structures: Replacement of the existing actuators and cabling at the Nimme Creek Regulator that started on 17 December 2018 is expected to be completed by 23 January 2019. For safety reasons, power supply to the site including South and North Caira offtakes was cut off. The power is expected to be restored by this week. During power outage period flow to South Caira was managed by controlling the Maude Weir pool levels.



5. Central valley based operational activities

5.1 Lachlan valley



Storage and release status

- Carcoar Dam is currently 37% of capacity and currently releasing only 2ML/d in response to last week's rain. Releases are forecast to increase to between 70-90ML/d later in the week.
- Wyangala Dam is currently 41% of capacity and currently releasing 2,500ML/d. Releases are forecast to remain steady this week.
- Lake Cargelligo is currently 58% of capacity and the level is likely to remain between 40% and 80% during the irrigation season. Media release on Lake Cargelligo operation can be accessed at [Link](#)
- Releases downstream of Brewster Weir are currently 900ML/d. Releases are forecast to remain around 800-900ML/d this rate this week.

Environmental water operations

- The tributary inflows from the earlier rain totalled 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. This small fresh event, when in the Upper Lachlan consisted of about 7,000 ML over 10 days and will become a large fresh below Booligal of 18 to 20 days. This water is currently passing through Booligal.
- As of 25 July 2018, Lake Brewster main storage is effectively empty. From 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.
- Due to drought conditions, end of system daily environmental flow requirements in the Belubula River are being met intermittently.

Water Availability

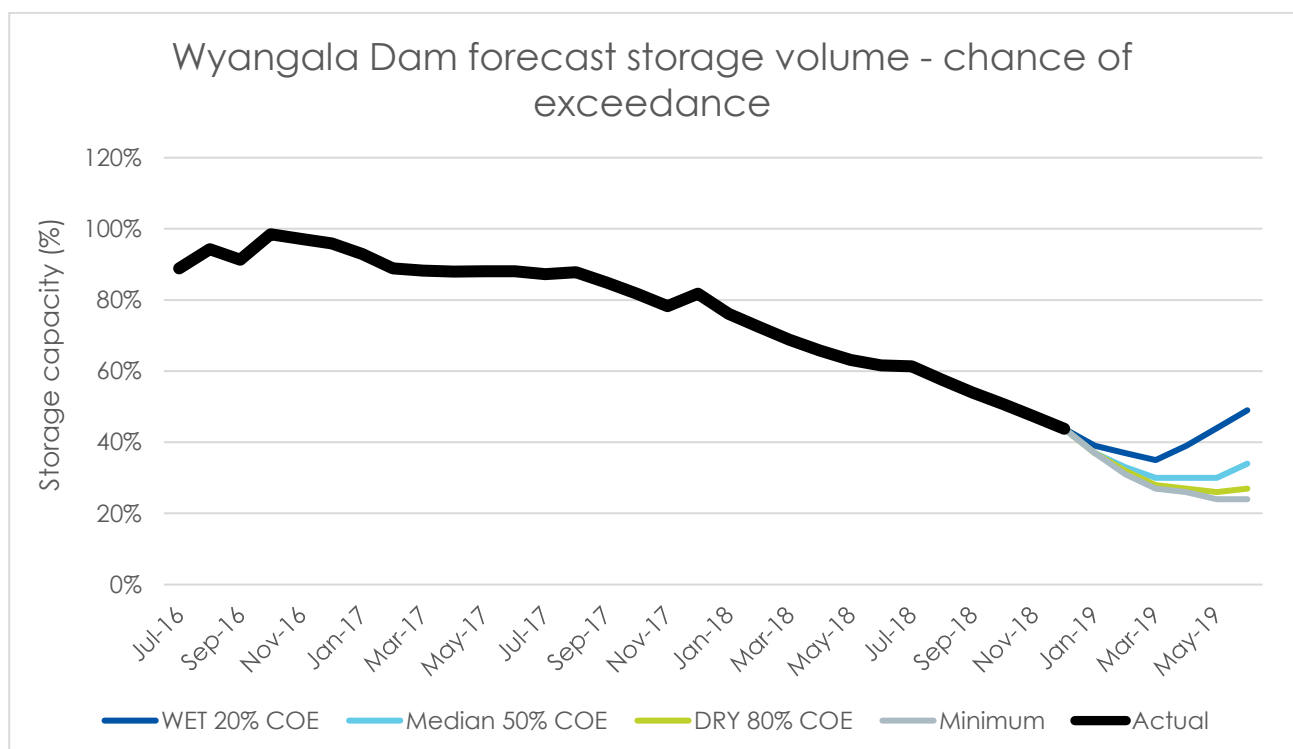
- The 15 January Water Allocation Statement confirmed zero for general security and the initial Available Water Determinations (AWD) of 100% for towns, S&D and high security. Carryover into 2018-19 in Lachlan River is about 369GL, equivalent to about 62% of general security share components.
- It is estimated that a combined dam and tributary inflow volume of more than 224,000 ML is required in January before a further allocation could be made in the Lachlan River. Inflows received in January so far have been about 23,000ML.

Water Quality

- 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.
- Some river flow is being circulated through the Lake Cargelligo with the intention of improving water quality in the channels connecting the lakes and the river.

Planned supply interruptions:

- Nil.



5.2 Macquarie valley



Storage and release status

- Burrendong Dam is currently 10% of capacity and currently releasing 1,800ML/d. Releases are forecast to be between 1,500 to 1,800ML/d this week to meet irrigation demand.
- The level in Burrendong Dam is expected to drop steadily to about 4% 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).
- Windamere Dam is currently 36% of capacity and currently releasing 320ML/d. Releases for the bulk water transfer to Burrendong Dam have commenced from 1st Jan 2019. Predicted river heights [Link](#)
- Recent rain has produced a small inflow of about 10,000 ML into Burrendong Dam. Combination of Windamere releases and Burrendong inflows has resulted in Burrendong Dam being higher than previously forecast for this stage of the drought planning.
- The bulk water transfer pattern has been modified to assist Cudgegong landholders move of stock and machinery across the river.
- If conditions remain dry, a second phase of the transfer will occur mid-year 2019, leaving a minimum of 70GL in Windamere Dam, which provides a very secure supply for local demand for the next seven years.
- Flows into Duck and Crooked Creeks at the offtake from Gunningbar Ck have been increased to restore flows in the creeks. On Friday 11 Jan the flows have reached Marryambone Weir in the Duck Creek and Mumblebone Dam in the Crooked Creek. Flows from the Gunningbar Creek are also being directed via the Bena Billa Channel to restore the flows in the lower Duck creek.

Environmental water operations

- Delivery of environmental flows commenced at Burrendong Dam on 12 July 2018 and have been completed from the dam with the recession ending the deliveries on 11 December at Marebone.

Water availability

- 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.
- The reduction for storage evaporation has been applied to accessible carryover balances as of 31 Dec 2018 in Macquarie and Cudgegong Rivers for the second quarter of 2018-19 (end Dec) on both General and High Security Licences and to accessible EWA accounts. Evaporation reduction is not applied to the suspended portion of the carryover accounts. Macquarie River at 4.2% and Cudgegong River at 1.5% of balances.
- It is estimated that inflows of around 317 GL are required in January before an increment in Available Water Determination could be made. Inflows received so far in January (aside from Windamere bulk water transfers) are around 10GL.

Drought operation measures

- The Temporary Water Restriction Order restricts access to 70 per cent of the 1 July 2018 balance of general security and environmental accounts (including EWA) in the Macquarie. The resources in Burrendong Dam plus minimum expected inflows, and planned bulk water transfer from Windamere Dam, only provide for this 70 per cent.
- 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.
- 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: [Fact Sheet](#).
- DOI (Water) in their Water Allocation Statement (WAS) for January 2019 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 WAS has also referred 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 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.

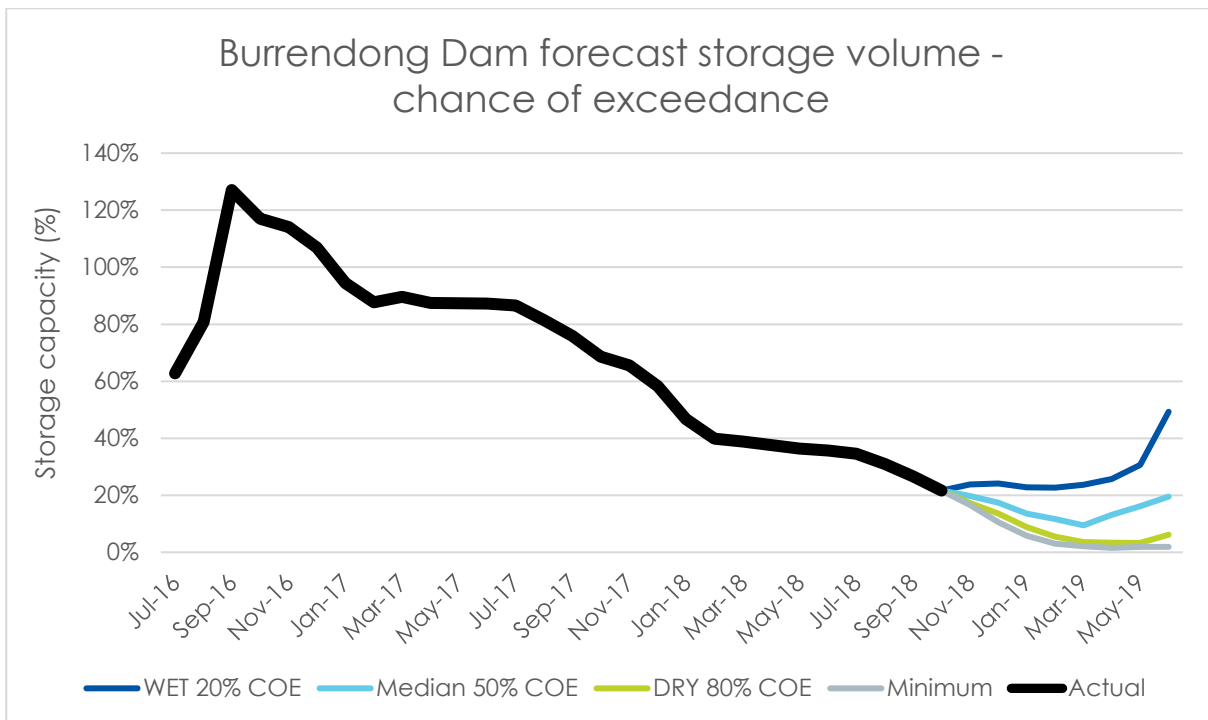
- Inflows in excess of 60,000 ML by the end of January 2019 is required to secure higher priority needs under Stage 4 drought management operations during the 2019/20 water year. Should this inflow volume arrive before February 2019, any additional resources will then be used to ease some of the current 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 [Incident response guide Macquarie](#).
- The actual inflows to Burrendong Dam since the last AWD in August 2017 total about 49 GL. This is only 26% of the previous record low inflow of about 189GL for the 17 months ending in December.
- 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.

Water quality

- Burrendong algal results for the 11th Dec show no presence of potentially toxic species. Assemblage at Station 1 has a minor benign cyanobacterial presence. Mookerawa was dominated by flood alga, whereas the Cudgegong showed flood alga, diatoms and green alga. Storage is now at Green alert. However weekly sampling will continue as part of the curtain reinstatement.
- Windamere algal results for the 8th Jan shows High concentrations of potentially toxic species present at station 4, as a result Windamere is on Red Alert.
- A second trash rack is now installed at Windamere Dam 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 curtain is fully lowered due to low storage levels.

Planned supply interruptions:

- Nil



6. Northern valley based operational activities



6.1 Namoi valley

Storage and release status

- Split Rock Dam is at 4% of active capacity and is currently releasing around 95 ML/d, as the recent bulk water transfer to Keepit Dam is complete.
- Keepit Dam is at less than 0.5% of active capacity and releases have ceased. Cease to flow conditions now extend downstream of the dam and for the majority of the Namoi River downstream of Narrabri.
- Chaffey Dam is at 38% of active capacity and currently releasing 189ML/d.
- This season's block release from Keepit to the Lower Namoi has now been finalised and the delivery of water to downstream locations is complete. The delivery of general security water was made only to the Namoi River upstream of Gundigergera Weir, and to the Pian Creek upstream of Greylands Weir.
- Flows from Keepit Dam and the Namoi weirs have now reached Walgett at a very low rate. Prior to this small flow arriving, no flow has been present in the Namoi River at Walgett (Station No 419091) since March 2018.
- The Pian Creek replenishment flow was not able to be delivered in the usual manner so unless conditions improve, other supply arrangements may need to be made.
- Supply on demand applies for the Upper Namoi and the Peel Valley.

Environmental water operations

- Environmental water was delivered as part of the lower Namoi block release. This water was ordered and delivered downstream of Gundigergera Weir over the last two months.
- In the Peel valley there is currently 1.9GL of planned environmental water plus a small amount of held environmental water. There are not any current orders for the release of water from either of these accounts.

Water availability

- There is currently a shortfall of more than 80GL before there is likely to be an AWD increment in the Lower Namoi valley.

- The 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 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%.

Drought operation measures

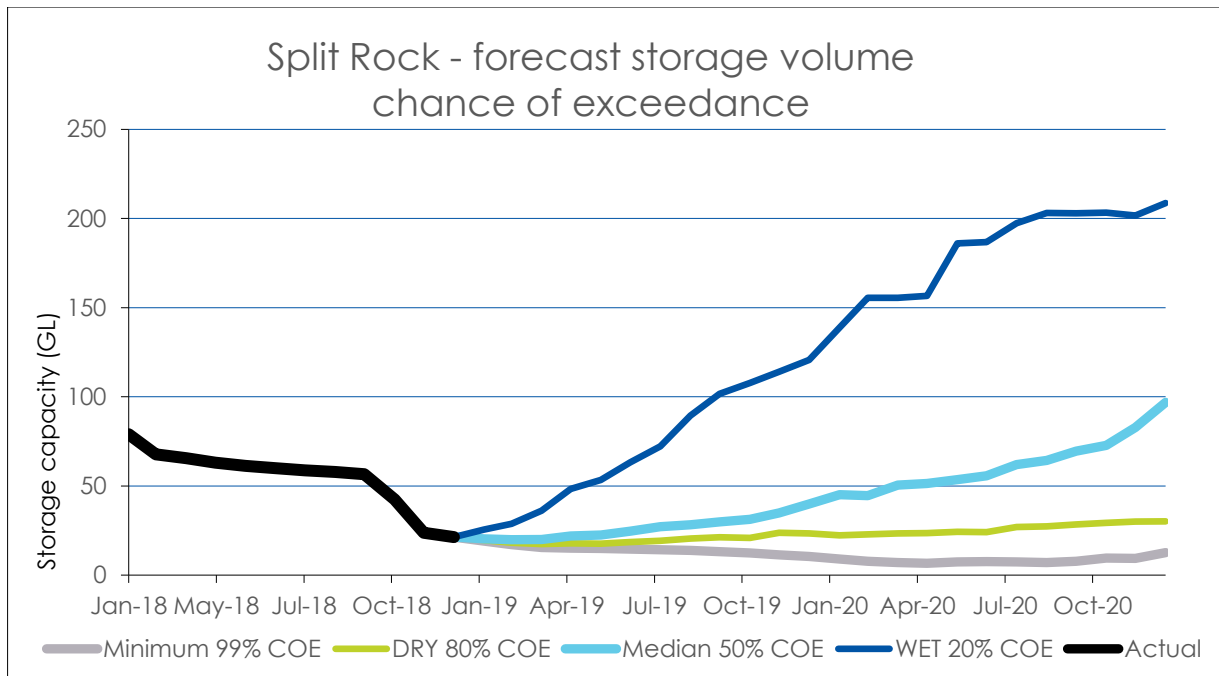
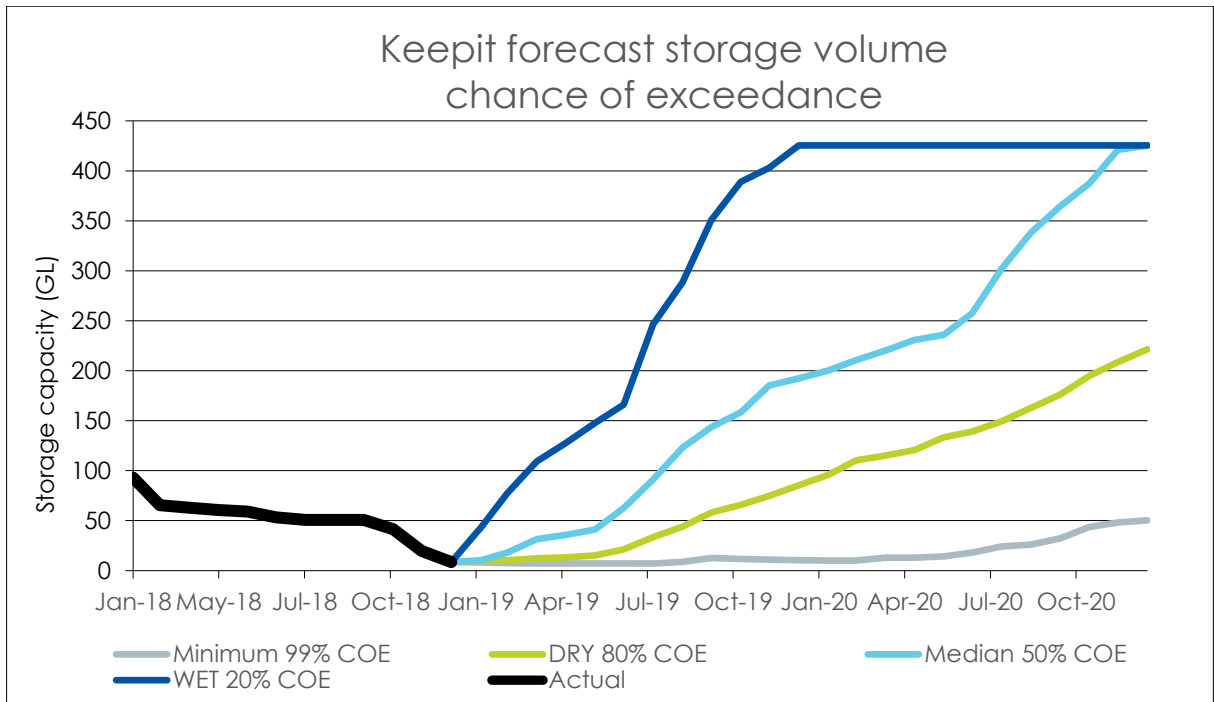
- Temporary Water Restrictions in the Namoi that imposed limits to trade and use have now been fully removed.
- No further block releases are planned for the Lower Namoi until inflows occur.

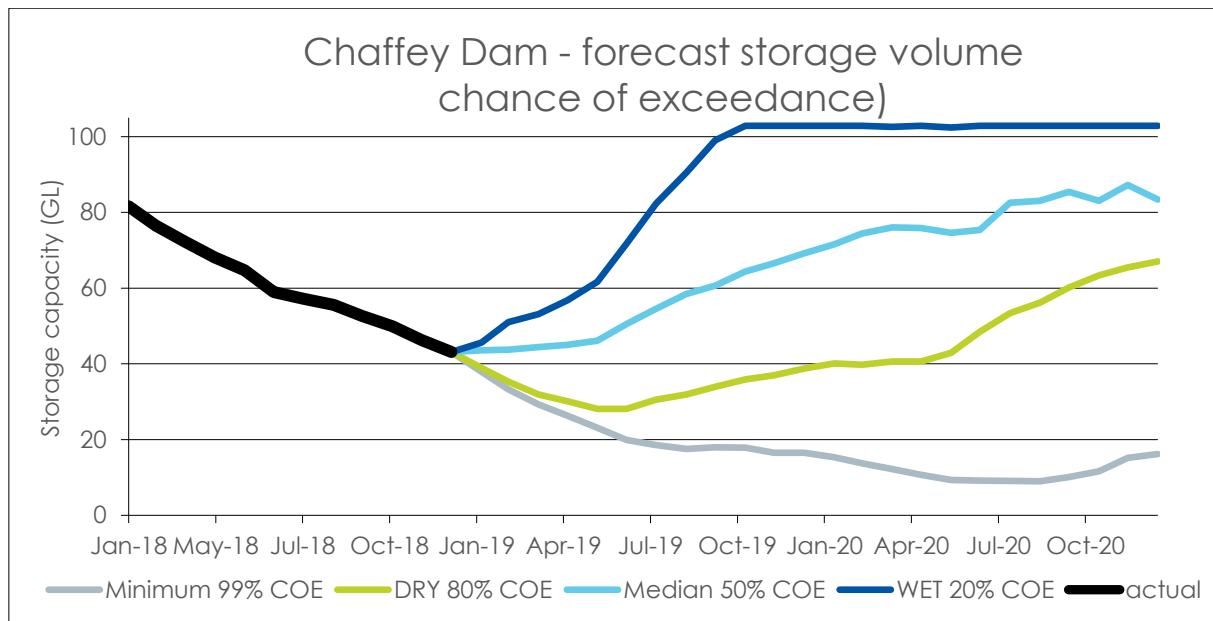
Water quality

- 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 and release status

- Copeton Dam is at 13% of active capacity and is currently releasing around 1,630 ML/d.
- Block releases for the western effluent streams are scheduled. See updated [Customer Notice](#).

Environmental water operations

- Around 60 GL (in total) of environmental water is being delivered to the Gwydir and Gingham, with the final 10 GL currently being delivered to the Gingham.
- Of this 60 GL of environmental water, about half is being supplied from the ECA and half from the CEWO (Commonwealth Environmental Water Office)
- In the Mallowa Creek, the delivery of the second batch of 10GL of CEWO's environmental water is underway and flow has reached the targets at the end of system.

Water availability

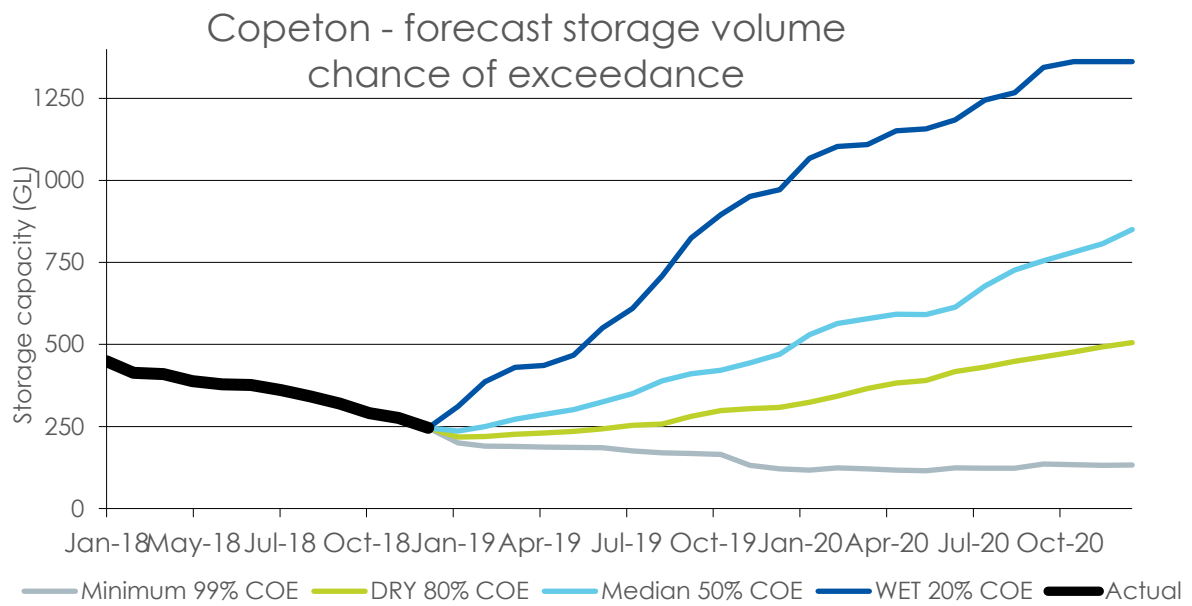
- The initial Available Water Determinations (AWD) are 100% for towns and high security, while general security is zero. Total carryover into 2018-19 was estimated to be up to 22% of general security share components.
- Carryover of general security for industry production was limited to roughly 40 GL (about 8% of all general security share components).
- Carryover of general security for environmental use is roughly 71 GL (about 14 % of all general security share components), in addition roughly 45 GL is still available in the Environmental Contingency Allowance (ECA).
- Recent Blue Green Algae (BGA) sampling at Copeton shows Copeton at amber alert level.

Drought operation measures

- Block releases for the western effluent streams are scheduled. See updated [Customer Notice](#).

Planned supply interruptions:

- No supply interruptions are expected.





6.3 Border rivers

Storage status

- Pindari Dam is at 18% of capacity and releasing 1,916ML/d. Releases are forecast to decrease later this week.
- Glenlyon Dam is at 23% of capacity and releasing 1,334ML/d. Releases are also forecast to decrease later this week.
- Releases from Boggabilla Weir are currently around 2,030ML/d. Releases are forecast to change frequently depending on orders.

Environmental water operations

- No current held environmental water orders, nor triggers for planned environmental water releases.
- Boomi replenishment flow has started last week.

Water availability

- The Available Water Determinations (AWD) are 100% for towns and high security, while general security A-class is 32.8% and general security B-class is zero. Total carryover into 2018-19 was around 53% of general security share components.

Drought operation measures

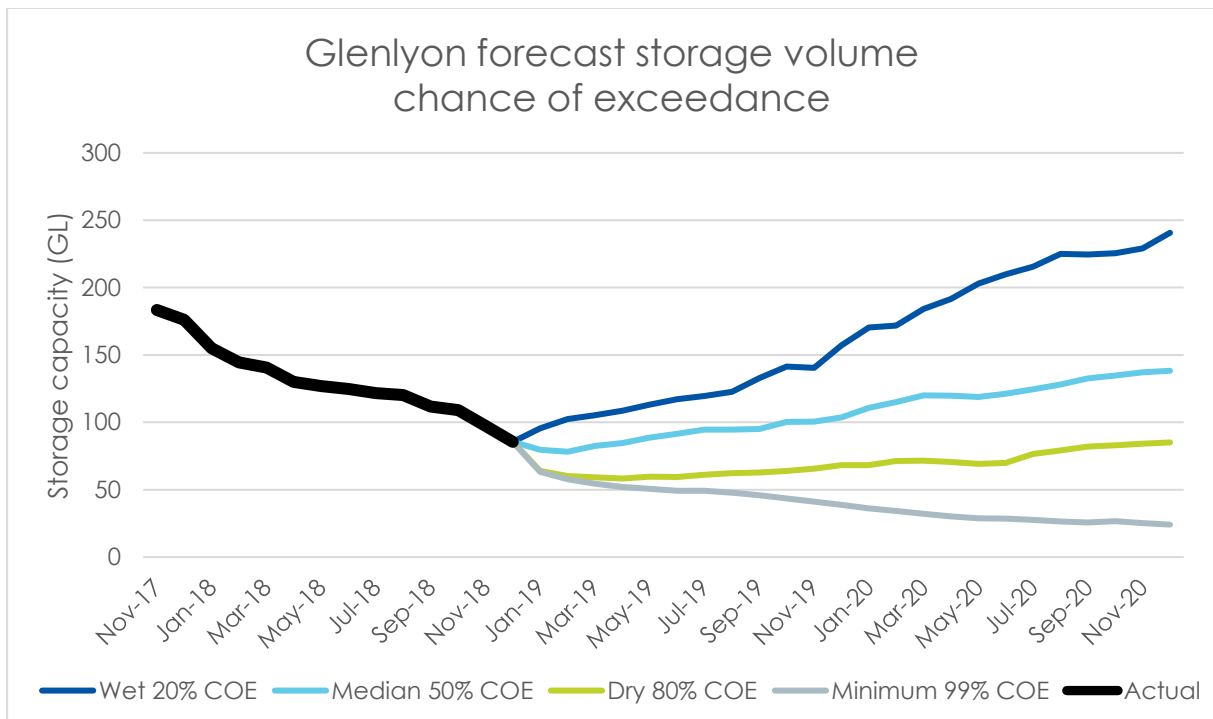
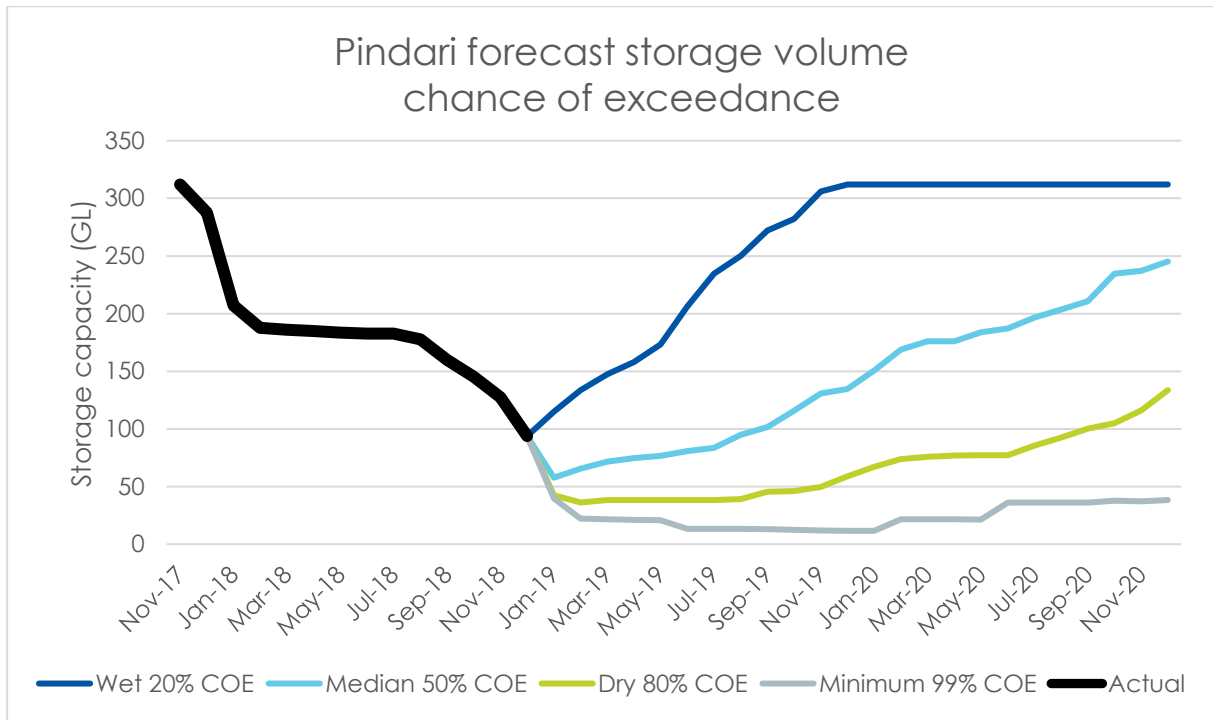
- Deliveries west of Boomi will be grouped together and undertaken in distinct blocks throughout the 2018/19 growing season.

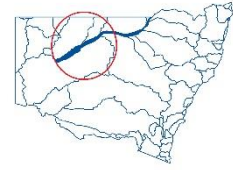
Water quality

- Recent Blue Green Algae (BGA) sampling at Pindari shows Pindari is at green alert level.

Planned supply interruptions:

- No supply interruptions are currently forecast.





6.4 Barwon-Darling River system

River flow status

- The river system from Mungindi to Wilcannia is currently at cease to flow condition and is forecast to remain this way until there is a significant rainfall event.
- Some recent minor flows at Mungindi and Presbury were from operational surplus flows in the Border Rivers.
- Weir pool levels are expected to continue to fall due to evaporation, town water use and Basic Landholder Rights extractions.

Environmental water operations

- There are no current Held Environmental Water (HEW) flows in the Barwon Darling system.
- Planned Environmental Water (PEW) is water in the system that is below the commence to pump conditions for access licences.

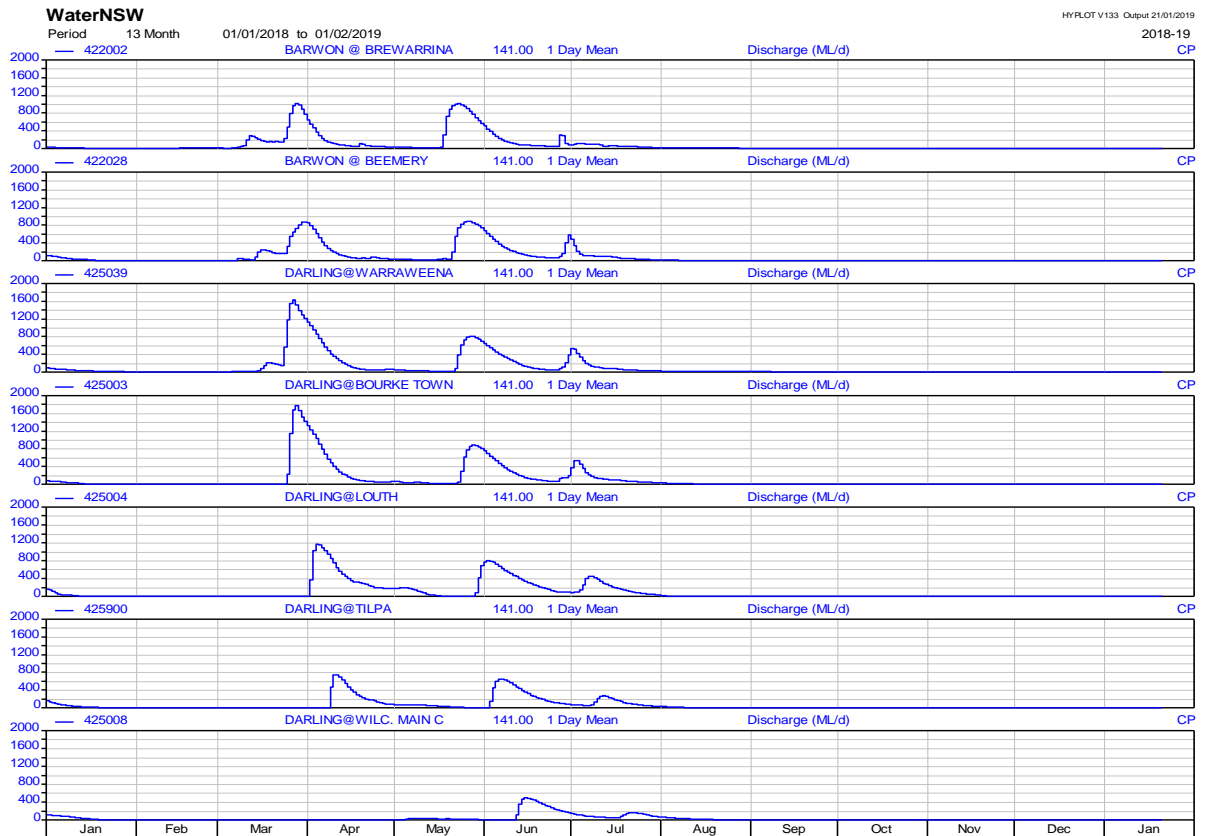
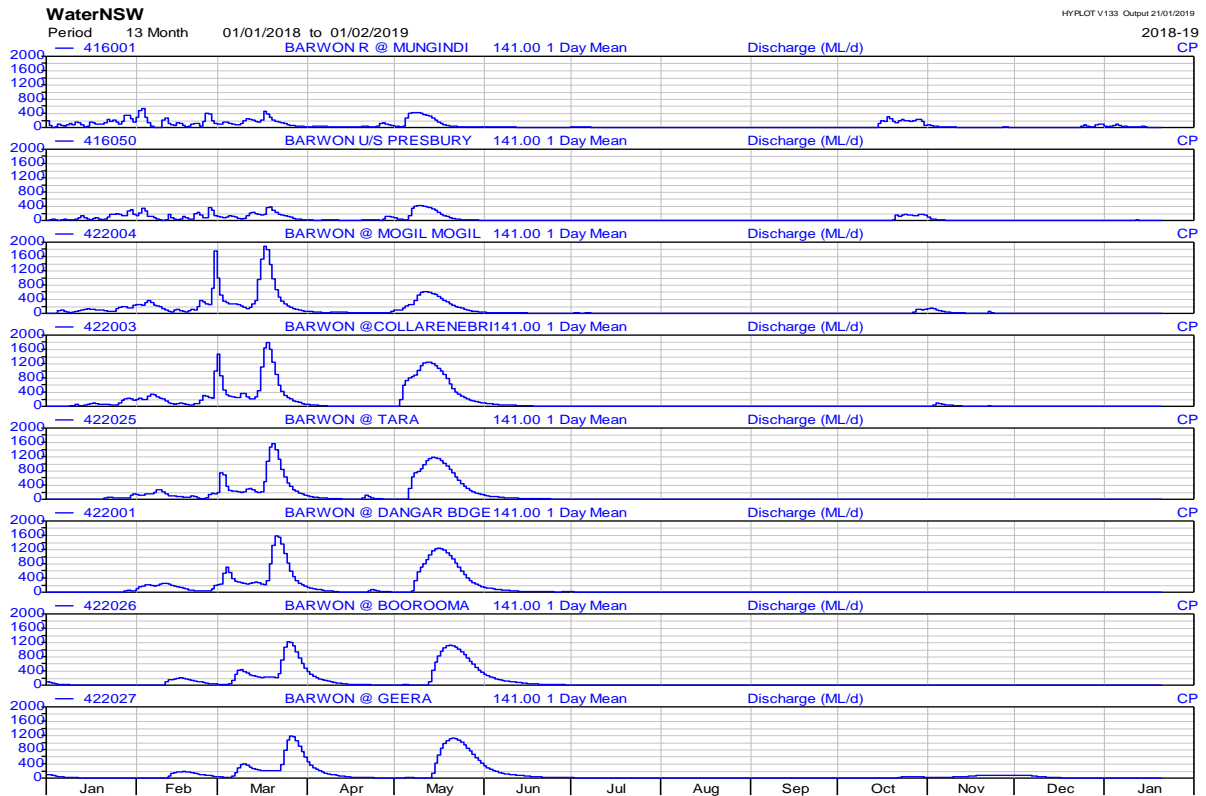
Water Availability

- The table below sets out 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.

Drought operation measures

- As per the NSW Extreme Events Policy for all surface and ground water sources in the NSW Murray Darling Basin, the Barwon Darling unregulated river water source is assessed to be in Stage 3. Temporary water restrictions may be required to ensure critical water needs.

River section	Gauging station	Classification						
		14-01-19	15-01-19	16-01-19	17-01-19	18-01-19	19-01-19	20-01-19
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 and release status

- Brogo Dam is at 85% of capacity and currently releasing 20ML/d. Releases are forecast to remain around this rate this week.
- Regulated conditions are present throughout the system.



Environmental water operations

- No current additional operations.

Water availability

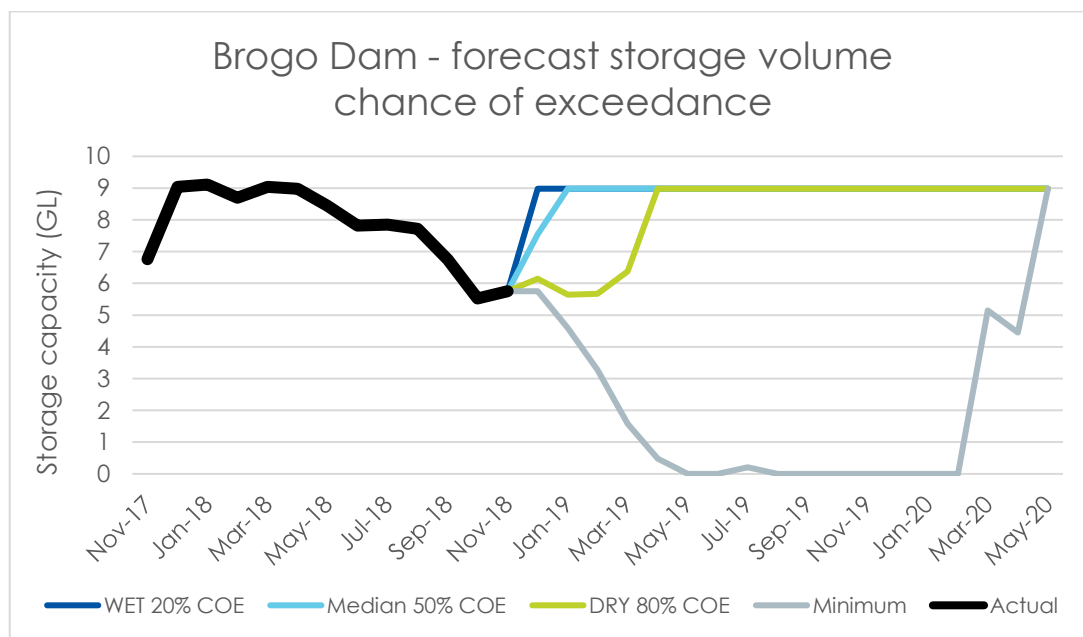
- An AWD increment of 10% announced on 16 Jan 2019 takes the total availability for the general security licences for the year to 45%.
- General security availability likely to increase with further inflows to Brogo Dam.

Water quality

- Recent BGA sampling at Brogo indicates a green alert level is maintained.

Planned supply interruptions:

- Nil



7.2 Hunter valley



Storage and release status

- Glenbawn Dam is currently at 58% of capacity and releasing around 350ML/d. Releases are forecast to remain around this rate during the week.
- Glennies Creek Dam is at 60% of capacity and releases are currently around 150 ML/d. Releases are forecast to remain around this rate during the week.
- Lostock Dam is at 94% of capacity and releasing 40 ML/d. Releases are forecast to remain around this rate.

Environmental water operations

- No current additional operations.

Water availability

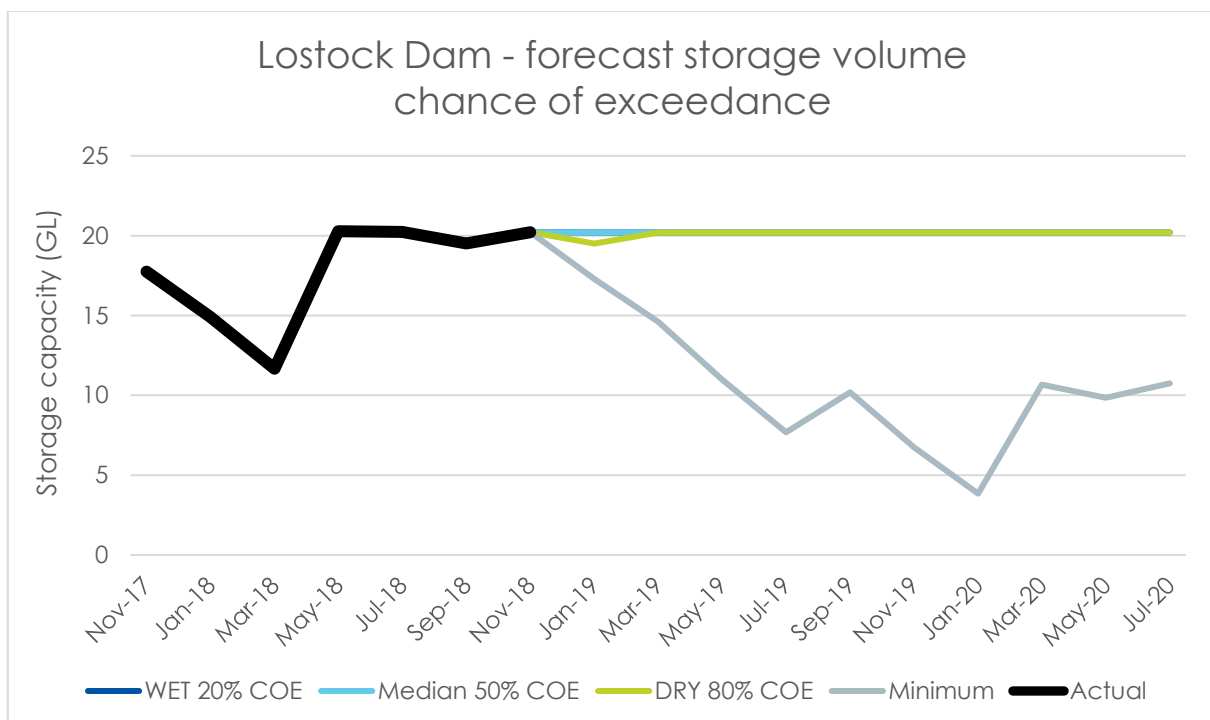
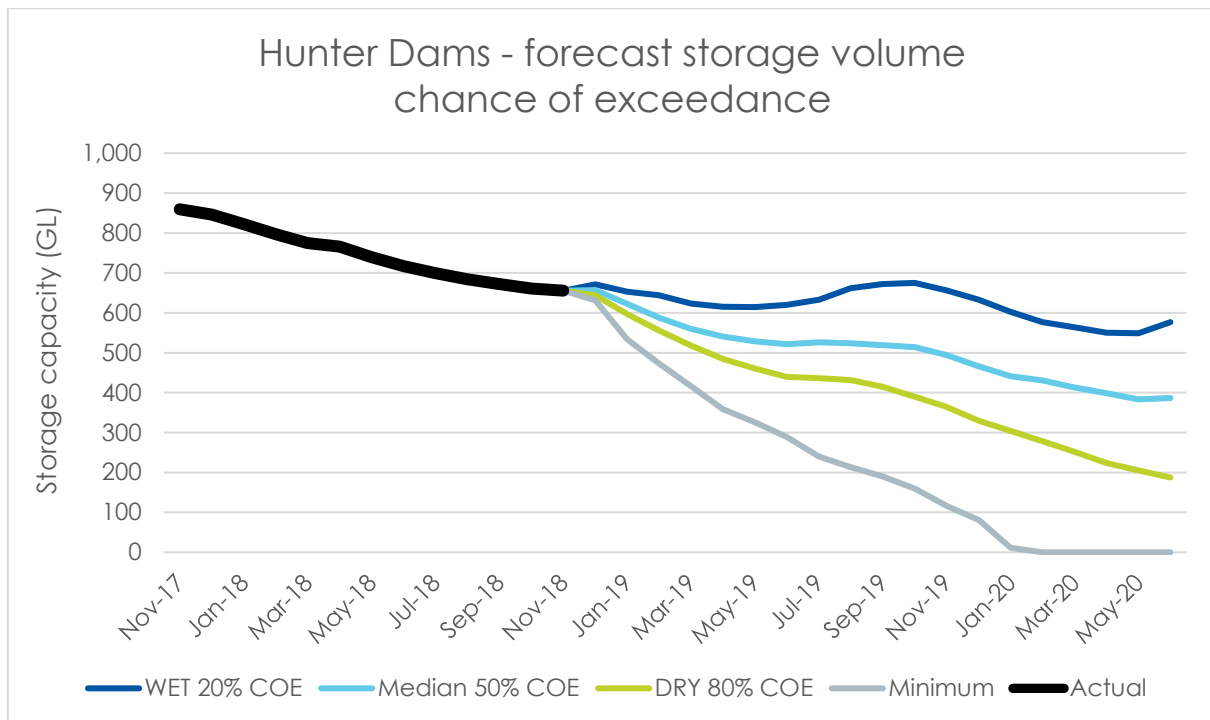
- All licence categories have 100% availability

Water quality

- Recent BGA sampling at Hunter storages indicates a green alert is maintained at Glenbawn and Glennies Creek. Lostock storage has turned into red alert.

Planned supply interruptions:

- Nil



7.3 Toonumbar Dam

Storage and release status

- Toonumbar Dam is at 88% of capacity and releasing 23 ML/d. Releases are forecast to remain steady for the week ahead.

Environmental water operations

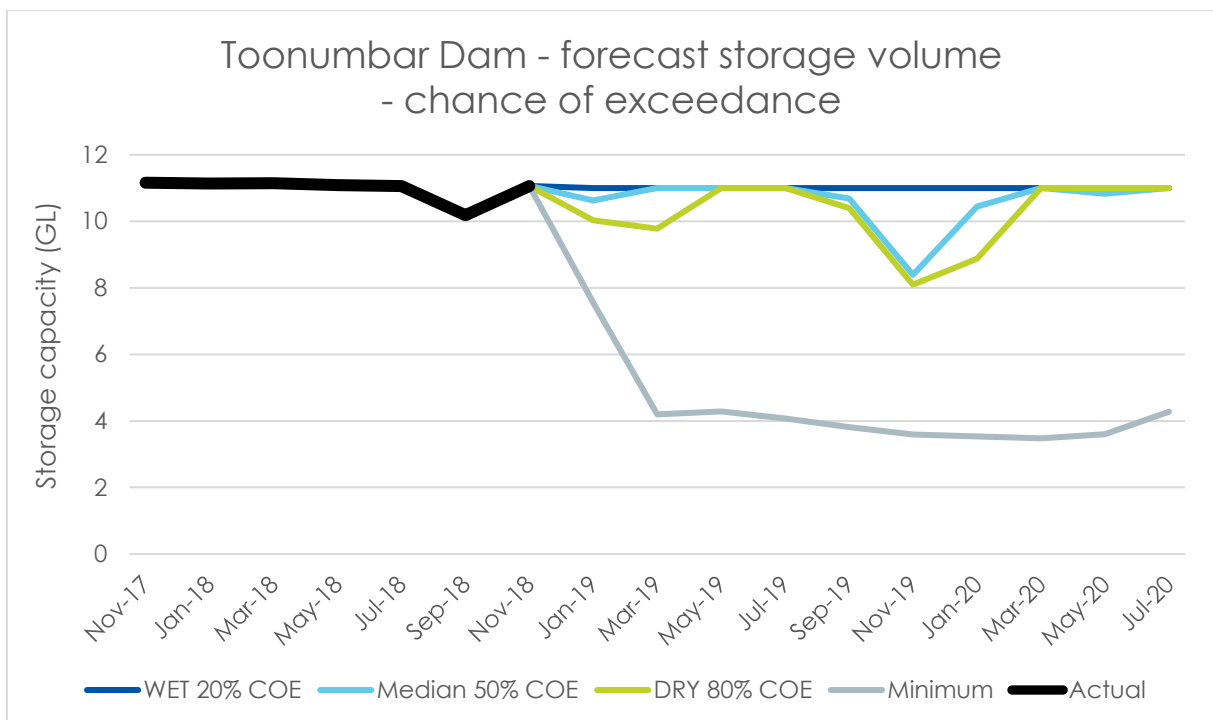
- No current additional operations.

Water availability

- All licence categories have 100% availability.

Water quality

- 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 21 January 2019.

River Valley	Capacity (GL)	Current Status		Weekly change (GL)	Comments Supply Issues	Likelihood of fill and spill	Allocations for 2018/19		
		% of active capacity	Active (GL)				High Security	Gen. Security	Est Carry- over @ 1/7/18
Border Rivers									
Glenlyon Dam, Stanthorpe	254	23%	58	-6	Regulated releases	<20%	100%	2.7%	53%
Pindari Dam, Inverell	312	18%	55	-12	Regulated releases	<20%	100%	2.7%	53%
Gwydir Valley									
Copeton Dam, Inverell	1346	13%	181	-12	Regulated releases	<5%	100%	0%	22%
Namoi Valley									
Keepit Dam, Gunnedah	419	1%	2	0	Releases ceased	<20%	100%	0%	19%
Split Rock Dam, Manilla	394	4%	16	-1	Regulated releases	<5%	100%	100%	N/A
Chaffey Dam, Tamworth	98	38%	37	-1	Regulated releases	<50%	100%	38%	N/A
Macquarie Valley									
Burrendong Dam, Wellington	1155	10%	116	-6	Regulated releases, restricted c/over	<20%	100%	0%	52%
Windamere Dam, Mudgee	367	36%	131	-3	Bulk water transfer	<5%	100%	0%	102%
Lachlan Valley									
Wyangala Dam, Cowra	1216	41%	495	-13	Regulated releases	<20%	100%	0%	62%
Carcoar Dam, Carcoar	36	37%	13	-0	Regulated releases	10%	100%	0%	67%
Murrumbidgee Valley									
Burrinjuck Dam, Yass	1025	41%	416	-8	Irrigation & eWater	25%	95%	7%	22%
Blowering Dam, Tumut	1604	34%	538	-43	Irrigation & eWater	20%	95%	7%	22%
Murray Valley									
Dartmouth, Mitta Mitta (Vic)	3837	67%	2566	-33	Transfers to Hume	N/A	N/A	N/A	N/A
Hume Dam, Albury	2982	34%	1004	-40	Irrigation, eWater & L Vic	<25%	97%	0%	31%
Lower Darling									
Menindee Lakes, Broken Hill	1684	1%	15	-9	Releases reducing	N/A	100%	0%	15%
Hunter Valley									
Glenbawn Dam, Scone	750	58%	432	-3	Regulated releases	20%	100%	100%	21%
Glennies Ck Dam, Singleton	282	60%	170	-2	Regulated releases	20%	100%	100%	21%
Lostock Dam, Gresford	20	94%	19	-0	Regulated releases	100%	100%	100%	N/A
Coastal Area									
Toonumbar Dam, Kyogle	11	88%	9	-0	Regulated releases	100%	100%	100%	N/A
Broggo Dam, Bega	9	85%	7	0	Regulated releases	80%	100%	30%	N/A
TOTALS	17,798	35.2%	6265	-194					

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.