

What we heard

From 22 May to 7 June 2019, the NSW Department of Industry and WaterNSW held a series of meetings with communities in drought-affected river systems.

The purpose of these meetings was to hear community views on how remaining, limited water supplies should be managed and to provide advice on current water availability and water resource outlooks.

Locations

Details of locations and groups represented at each meeting can be found at the end of this document.

Key information provided at the meetings

The meetings were run by an independent facilitator.

The department explained the policy context for how water supplies are managed under the Extreme Events Policy (www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/extreme-events) and presented information on the effects the drought is having on groundwater sources in each valley.

WaterNSW provided information on the current water supply situation for each river system, inflows and outlooks.

Copies of all the presentations are available on the department's website: www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update/information-sessions

Issues that were raised at each of the public meetings are summarised below. Common issues for surface water and groundwater are provided first.

More drought meetings with the community

If the drought continues, we plan to hold more meetings later in 2019. The focus of these meetings will be drought planning for the upcoming summer.

More information

For regular email updates from the NSW Department of Industry, subscribe to the monthly newsletter and/or water allocation statements: www.industry.nsw.gov.au/media/subscribe.

For regular email updates from WaterNSW, subscribe to the weekly drought update, water availability report and/or other notifications: www.waternsw.com.au/customer-service/news/subscribe.

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

Common issues raised

Below is a summary of the common issues raised at most or all meeting locations and the response or follow-up to occur.

Table 1. Summary of common issues—Rivers

Issue	Response
<p>Information on the current drought situation should be more accessible and widely available.</p>	<ul style="list-style-type: none"> • The department's 'Drought Update' webpage links to an overview of critical valleys in drought, water allocation statements and temporary restrictions: www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update • WaterNSW provides valley-specific drought information on its webpage 'Regional NSW Drought Information': www.waternsw.com.au/supply/drought-information/regional-nsw • The NSW Government and WaterNSW regularly engage with media outlets to ensure the media has up-to-date information on the drought. • The government will explore further ways to make information more accessible.
<p>Information needs to be provided not just on water allocated and released but also on how it is used (including environmental releases).</p>	<ul style="list-style-type: none"> • In its Water Allocation Statements, the department will identify, where possible, the monthly breakdown of water released from storage: high priority needs, river operations, environmental watering and general security orders. • WaterNSW is also progressively developing a 'Water Insights' portal to bring key water resource information together for the customer: www.waternsw.com.au/waterinsights • WaterNSW and the department will consider how to improve information available through local and regional media on dam releases, volumes and the purpose of these releases. • Information on water for the environment, including annual watering priorities, is available on the Office of Environment and Heritage's (OEH) website at www.environment.nsw.gov.au/topics/water/water-for-the-environment • Information on the water held and used by the Commonwealth Environmental Water Office (CEWO) is available at www.environment.gov.au/water/cewo/catchment • The department is developing an 'Environmental Water Hub' to provide a quicker access point for a range of information on water for the environment.
<p>How does the NSW Extreme Events Policy link with incident response guides, water sharing plans and water resource plans?</p>	<ul style="list-style-type: none"> • The Murray–Darling <i>Basin Plan 2012</i> requires the states to demonstrate how they will manage extreme events. For NSW, this is set out in the NSW Extreme Events Policy. The incident response guides provide the possible management responses for each water resource plan area in line with the policy. The guides form part of water resource plans. Parts of the guides will be accredited by the Murray–Darling Basin Authority.
<p>Community involvement in drought management decisions</p>	<ul style="list-style-type: none"> • The NSW Government recognises the importance of community involvement in drought decision making. • There are multiple forums for input into drought decision-making: public meetings, key stakeholder forums and representation via state or local government. • WaterNSW is setting up River Operations Stakeholder Community

	<p>Consultative Committees (ROSCCOs) for each valley to seek direct and broad stakeholder input. Further information is available at https://www.waternsw.com.au/supply/regional-nsw/roscco.</p> <ul style="list-style-type: none"> • Additional public meetings will be held later in the year if the drought continues. • Critical water advisory panels include state and local government representatives only, to allow discussion of market-sensitive information and provide further input into the water management decisions. Information on the panels and the outcomes of the meetings are available at www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/update/critical-water-advisory-panels
<p>In light of ongoing drought conditions, what steps are being taken to drought-proof water supplies?</p>	<ul style="list-style-type: none"> • The NSW Government is rolling out regional water strategies over a 30-year period, looking at options to improve water security across NSW: www.industry.nsw.gov.au/water/plans-programs/water-mgmt-strategies • WaterNSW has developed a '20-year infrastructure options study' that lists possible options in each valley: www.waternsw.com.au/projects/infrastructure-studies/20-year-infrastructure-options-study • The NSW Government has committed \$1 billion under the Safe and Secure Water Program to improve the long-term security for town water supplies. \$11.4m was allocated this year specifically for water supply emergency works for local water utilities (councils), including \$1.2m for an additional bore for Bourke and \$0.8m for a duplicated pipeline. A further \$16.4m is allocated across NSW for next year for emergency works: www.industry.nsw.gov.au/water/plans-programs/infrastructure-programs/safe-and-secure-water-program • On 13 June 2019 the NSW Government announced a new \$170-million drought infrastructure package, including the following committed projects: <ul style="list-style-type: none"> ○ \$30 million for new groundwater supply for Dubbo ○ \$8.2 million for construction of second water storage at Nyngan ○ \$2.2 million to augment bore water supply at Coonabarabran ○ \$2 million for Albert Priest Channel critical maintenance. • NSW Government has announced \$4.5m to investigate the water management infrastructure along the Barwon–Darling River, under the Western Weirs Project. This will look at regulating structures along the length of the system and assess what needs to happen to improve water management.
<p>Why is the environment prioritised above stock needs?</p>	<ul style="list-style-type: none"> • We are required to manage water resources according to the priorities in the <i>Water Management Act 2000</i>. The first priority is critical human needs. • In a severe drought, the environmental needs are generally critical ecosystem survival needs only. • In most cases, if there is sufficient water to run the river, then all critical needs will be met from this water.
<p>Is there going to be any action from the South Australian Royal Commission and the recent Productivity Commission inquiry into the Murray–Darling Basin Plan?</p>	<ul style="list-style-type: none"> • In recent years, there have been a lot of inquiries into water management in NSW and other areas of the Murray–Darling Basin. The majority of the recommendations from the SA Royal Commission related to the Commonwealth <i>Water Act 2007</i> and the Murray–Darling Basin Authority. • The NSW Government is working closely with the Commonwealth and other state Governments to develop a joint response to the Productivity

	<p>Commission inquiry, which will also address many of the recommendations of the SA Royal Commission.</p> <ul style="list-style-type: none"> • In relation to NSW, compliance has been a big issue and the independent Natural Resources Access Regulator (NRAR) has been set up to improve this. We are also considering better rules to manage resumption of flows in rivers that haven't flowed for a long time and to improve river health. • The Vertessy report into the Lower Darling fish deaths has also made a number of recommendations, which are being considered in consultation with the Commonwealth.
<p>Concern that the consequences for those who don't comply with the rules may not be sufficient.</p>	<ul style="list-style-type: none"> • The establishment of the NRAR and the changes to metering rules is a big step towards this. • Part of the establishment of the NRAR is getting more staff on the ground to monitor and check compliance. Some prosecutions of breaches are currently underway. • The NRAR has published a regulatory policy that outlines how breaches will be dealt with: www.industry.nsw.gov.au/__data/assets/pdf_file/0003/144039/NRAR-Regulatory-policy.pdf
<p>What consultation is occurring on the new metering requirements?</p>	<ul style="list-style-type: none"> • The department will hold stakeholder workshops on the rollout of the new metering framework in July this year. There is also information on the website: www.industry.nsw.gov.au/water-reform/metering-framework
<p>Concern about the availability of suitable pattern-approved flow meters.</p>	<ul style="list-style-type: none"> • The Murray–Darling Basin Authority has published an April 2019 report that lists eight meters that are pattern-approved, and a further ten that are being considered: www.mdba.gov.au/sites/default/files/pubs/Pattern-Approved-Non-Urban-Water-Meters-April-2019_0.pdf
<p>In light of the changed inflows and conditions in NSW, why isn't the Murray–Darling Basin Agreement being revised? Why is the additional dilution flow to South Australia still being provided when salinity is no longer an issue?</p>	<ul style="list-style-type: none"> • Any changes to the sharing of water under the Murray–Darling Basin Agreement need to be agreed by all states and the Commonwealth. • The inclusion of water savings projects such as the proposed Menindee Lakes project will require some modifications to the Agreement, including a review of the additional dilution flow.
<p>The government should give advance warning of the need for restrictions to all water users.</p>	<ul style="list-style-type: none"> • Water allocation statements, published regularly on the department's website, provide outlooks for future management options, including restrictions. • WaterNSW and the department regularly provide information on how the drought is affecting water deliveries in NSW regulated rivers. This includes providing information to local councils and high-priority licence holders that may be at risk. • Temporary water restrictions and the reasons for them are communicated on the department's website: www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions • The timeliness and form of communication of any market-sensitive information, including information on restrictions, must be carefully

	<p>considered to ensure equitable access by all licence holders.</p>
<p>What priority does general security carryover water have when supplies are limited?</p>	<ul style="list-style-type: none"> • Under NSW legislation, high security licences have priority over general security licences. However, before making a new allocation for high security, the department must make provision for a range of factors, including general security carryover already in accounts. • If high security allocation needs to be less than the normal maximum, then access to carryover water in accounts (all or a portion of) can be temporarily suspended.
<p>What happens to general security carryover water if it is temporarily suspended?</p>	<ul style="list-style-type: none"> • Carryover water that is temporarily suspended goes into a drought reserve account. If inflows are sufficient to meet critical water needs, water in the drought reserve will be returned progressively to users' active accounts. The carryover account water is not lost.
<p>Is environmental water reduced when general security water is reduced?</p>	<ul style="list-style-type: none"> • Availability of high security or general security licensed environmental water is treated the same way as other high security or general security licence holders. • Water for the environment, as defined in water sharing plan rules, is often already limited when storage levels and inflows are low. • In extreme events, the Act also provides for rules to be suspended to protect critical human water needs.
<p>Will the next inflows or supplementary events be embargoed/restricted from extraction in the northern basin?</p> <p>We need clarity about the public interest test.</p>	<ul style="list-style-type: none"> • Factors such as the location of the flows, timing, size and the ability to assist in meeting local and downstream critical needs are considered when determining whether lower priority access to inflows will be permitted. • Section 324 of the <i>Water Management Act 2000</i> allows the Minister or delegate to apply temporary water restrictions if these restrictions are determined to be in the public interest. Examples of the public interest include “to cope with a water shortage, threat to public health or safety or to manage water for environmental purposes”. • The reasons for imposing temporary water restrictions can be found at https://www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions . • To further increase transparency, the department will publish information about the circumstances in which these restrictions can be imposed and the circumstances in which they can be lifted. • The draft water resource plan for the Barwon–Darling is currently being developed. As part of this process, the department is considering including rules around the resumption of first flows. Public consultation about the plan will occur later this year.
<p>What impact is floodplain harvesting having on system inflows?</p>	<ul style="list-style-type: none"> • Floodplain harvesting occurs during flood. • The department is working to bring floodplain harvesting into the regulatory framework through the issuing of entitlements or licences. You can find more information at: www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/harvesting • The department will be consulting further on these reforms in August and September 2019, and information will be available online at the above link.
<p>Is there a requirement that water sharing plans need to consider</p>	<ul style="list-style-type: none"> • Water sharing plans have generally been based on outcomes within the plan area. There are rules that set limits and thresholds to allow for

<p>connectivity?</p> <p>Historically, the Upper and Lower Darling have been managed as separate systems. What is the evidence that this will change in the future?</p>	<p>flows to downstream water sources. This water then becomes the basis of water to be shared in the downstream water source.</p> <ul style="list-style-type: none"> • Information is collected through monitoring, evaluation and reporting to improve our understanding of how water sharing rules, the use of held environmental water and implementation of northern toolkit measures may contribute to improving connectivity. • Work on improving the management of environmental water in the north includes a stocktake of water sharing rules that could contribute to connectivity between states. • Other measures being considered, as part of the Government's response to the Independent Matthews review of water management and compliance, to better manage held environmental water will also help improve connectivity: www.industry.nsw.gov.au/water-reform/better-management-of-environmental-water • NSW is also consulting with Queensland on measures to improve connectivity. • The Vertessy report into the Lower Darling fish deaths has also made a number of recommendations, which are being considered in consultation with the Commonwealth. • Management of connectivity between the upper and lower Darling is dependent on the management of Menindee Lakes. Management and operation of the lakes is being reviewed as part of the proposed Menindee Lakes Water Saving Project. • A connectivity workshop is proposed in the near future as well.
<p>Have the northern cotton growers been allowed to take all the water?</p>	<ul style="list-style-type: none"> • The northern valleys and the Barwon–Darling have received record low inflows in recent years. • Allocations for general security users in the north have been low or zero for a number of years. Many cotton growers are using groundwater. • Limited cotton has been planted. • The NSW water allocation system is based on licence categories which don't discriminate on the basis of primary industries sector.
<p>Why haven't the dams at Toorale Station on the Warrego River been removed to allow flows into the Barwon–Darling?</p>	<ul style="list-style-type: none"> • Water has been allowed to flow through the infrastructure at Toorale station. • The ultimate aim is to remove these works, but as they have been in place for a long time, a number of artificial wetlands have been created, and there are a number of significant Aboriginal cultural values that could be affected by infrastructure works. The NSW Office of Environment and Heritage is undertaking the environmental and cultural assessments required for approval to remove the works. • Works will commence in October 2019 to allow increased flow passage through this property linking the Warrego and Barwon Darling Rivers. • Further information is available online: https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/community-engagement/toorale-water-infrastructure-project-review-of-environmental-factors
<p>Why haven't the losses at Menindee Lakes been reduced?</p> <p>Is there any plan to put a regulator between Cawndilla and Menindee?</p>	<ul style="list-style-type: none"> • Development of the proposed Menindee Lakes water saving project is currently at the concept plan stage. • This is a major project that could provide substantial water savings while also enhancing significant natural and cultural values. A detailed assessment of the options, potential impacts and initial feedback must be undertaken: www.industry.nsw.gov.au/water/plans-programs/water-recovery-programs/sustainable-diversion-limits/menindee-lakes

	<ul style="list-style-type: none"> The community will be closely engaged in the development of the project.
Why do South Australia and Victoria get full allocations when NSW Murray general security allocations are restricted?	<ul style="list-style-type: none"> Full high security allocations in NSW were made in the Murray in 2018–19 and are expected to be made in 2019–20. Allocations to both SA and Victorian water users are expected to be low in 2019–20 because of the continuing low inflows. The long-standing Murray–Darling Basin Agreement sets out water sharing arrangements between the three states which share the water resources of the Murray River. The nature of entitlement in NSW is different to that in SA and Victoria. The majority of NSW entitlement is general security, whereas SA and Victoria have a smaller volume of water, but that is mostly high reliability licences. As a result, SA and Victoria have fewer licensed users and allocate their water more conservatively to provide full allocations to their high-reliability customers in most years. Information on the entitlements of the three states was provided in the presentation from WaterNSW (p42), which is online at: https://www.waternsw.com.au/__data/assets/pdf_file/0006/144573/Murray-Community-Update-May-2019.pdf
Murray River deliverability and channel share—how can this supply risk be managed?	<ul style="list-style-type: none"> Supply risks in the Murray River below the Barmah Choke have long been recognised. There are a range of factors that can influence this risk, including land use trends, climate variability, water use patterns and physical channel capacity. Management responses to mitigate these risks vary, depending upon the causal factors at that point in time. NSW is working with the MDBA and other states to develop an agreed approach to mitigate these risks, both in the short term (operational measures) and longer term (NSW channel sharing policy). For further information, refer to the MDBA fact sheet: https://www.mdba.gov.au/sites/default/files/Understanding-River-Murray-waterfall-risks.pdf

Table 2. Summary of common issues—Groundwater

More information about groundwater and how it is managed can be found on the department’s website at <https://www.industry.nsw.gov.au/water/science/groundwater>

Issue	Response
Where can I get information on groundwater levels and extractions?	<ul style="list-style-type: none"> There are over 6,500 monitoring bores installed across the state. Many of these bores are telemetered, providing continuous real-time data. Others have information recorded less frequently through manual readings: https://realtimedata.waternsw.com.au/ Information on total water extractions in each groundwater source can be found on the NSW Water Register: https://waterregister.waternsw.com.au/water-register-frame
What proportion of water in the river	<ul style="list-style-type: none"> Water from the river can be an ongoing source of recharge to

<p>system contributes to groundwater recharge?</p>	<p>groundwater and its significance to the overall recharge volume varies between river reaches and individual rivers. The volume of groundwater held in storage is many times larger than the annual volume of recharge and acts as a buffer during dry periods. This is why groundwater is managed on a long-term average volume rather than changing each year, depending on seasonal conditions.</p> <ul style="list-style-type: none"> An online report provides further detail on the approach for managing groundwater: https://www.water.nsw.gov.au/__data/assets/pdf_file/0019/547300/macro-water-sharing-plans-the-approach-for-groundwater.pdf
<p>How is the Natural Resources Access Regulator (NRAR) ensuring groundwater compliance?</p>	<ul style="list-style-type: none"> The independent Natural Resources Access Regulator (NRAR) has more boots on the ground, undertaking more inspections and enforcement actions than before. If anyone has specific concerns that licence conditions are not being followed, please contact NRAR: www.industry.nsw.gov.au/natural-resources-access-regulator/report-an-incident
<p>Is there a role for groundwater users to provide the meter readings?</p>	<ul style="list-style-type: none"> Water users entering metering data into WaterNSW's water accounting system iWAS would help to provide a more timely picture of groundwater extraction levels and to assist in calculating allocations for 1 July: www.waternsw.com.au/customer-service/ordering-trading-and-pricing/ordering/iwas Government will continue to explore ways of improving data on groundwater.
<p>In those aquifers where allocation reductions may be applied on 1 July 2019, how are the reductions calculated and how will they be applied. Will carryover be reduced?</p> <p>Why hasn't a forecast of likely groundwater allocations been provided, as occurs for surface water? Irrigators need to plan two years in advance.</p>	<ul style="list-style-type: none"> Compliance with the groundwater extraction limit is based on extraction over a 3- or 5-year rolling average. If this exceeds the long-term limit by more than 5% or 10% (depending on the water sharing plan) then allocations need to be reduced. Carryover water for 2019–20 will not be suspended but the allocation announcement will take into account the volume of water carried over in accounts. The extent of the reduction will depend on how much extractions have exceeded the limit. If full water year usage data is not available for an aquifer by the end of June, two announcements may be made—one on 1 July based on estimated usage patterns and another after user data from the previous year is received. The timing of the allocation reduction will depend on the extent of the reduction required. On 22 May 2019 the department issued an advance allocation statement for groundwater. The department will seek to improve the outlook information available for groundwater.

Specific issues raised

Table 3. Specific issues—Goondiwindi

Specific issue—Goondiwindi (Border Rivers)	Response
<p>What is the link between drought stages and hierarchy</p>	<ul style="list-style-type: none"> As drought stages increase, restrictions on access to water also increase. Restrictions are applied first to lesser priority access

<p>of water priorities?</p>	<p>and then progressively to higher priorities in proportion to the drought stage. The intent of these increasing restrictions is ultimately to protect any remaining water supplies for critical human water needs.</p>
<p>What are the chances of zero inflow in next two years?</p>	<ul style="list-style-type: none"> • Extremely low. • WaterNSW uses a zero inflow as the worst possible case scenario for infrastructure options analysis. WaterNSW considers other drought scenarios as well, but zero inflow is the most extreme possible. • We are experiencing a new, record-breaking drought in several locations, meaning that inflows are lower than we have ever experienced before. • Further analysis will be undertaken as part of the Regional Water Strategies that use a broad range of evidence to extrapolate climate and rainfall sequences back thousands of years. This will improve our understanding of the chances of different scenarios happening in the future, including the extremity and duration of dry and wet periods. The analysis will also consider adjustments for climate change.
<p>With the northern fish release in NSW, was Queensland consulted over the Beardmore dam releases, as this caused localised flooding?</p>	<ul style="list-style-type: none"> • The Beardmore Dam releases are not related to the Northern Fish Flow event. These flows will not join up. • The NSW Government did liaise with the Queensland Government, specifically in relation to whether the inflows could be prioritised and provide benefit to critical needs in downstream NSW. • NSW understands releases from Beardmore Dam in Queensland were required as repairs to the dam were needed. • The flows from Beardmore Dam, while sufficient to cross the NSW border, were not sufficient to reach the Barwon-Darling.
<p>How long is the Goondiwindi town supply secure for?</p>	<ul style="list-style-type: none"> • The length of supply will depend on the actual inflow sequence. • The supply is secure at least until January 2021, even if no further inflows occur. • This zero inflow scenario is the most extreme worst case scenario, and any additional inflows will provide additional supply.
<p>Before the construction of dams, would the river have stopped for more than 21 days?</p>	<ul style="list-style-type: none"> • Yes. Under these climatic conditions, without dams, the river would have stopped flowing much earlier. There has been no base flow in the tributaries below the dams for 12–18 months now, which is highly unusual.
<p>Why isn't the government considering the Clarence inland diversion scheme?</p>	<ul style="list-style-type: none"> • Past studies found that the costs outweigh the benefits. The NSW Government has committed funds to investigate the potential for diversion schemes. • The government is also developing regional water strategies which will explore water demands and supply options for the next 30 years.

Table 4. Specific issues—Tamworth

Specific issue—Tamworth (Peel and Namoi)	Response
Are the department's drought stages different to council water restriction levels?	<ul style="list-style-type: none"> • Yes. The department's drought stages apply to the whole of the regulated river and are based on the capacity to deliver all water needs within that system. • Council water restrictions apply to town water users, and allow councils to manage and reduce demand depending on what bulk water can be supplied to them.
What plans do you have in place to balance flows and storage levels coming out of drought?	<ul style="list-style-type: none"> • The priorities of different licence types will be taken into account when allocating more water. • When the situation improves, the first priority will be to secure critical needs and provide water to run the river. • It is important not to ease restrictions too early, so a fairly conservative approach will be taken.
Is there an opportunity to keep water in storage to improve the quality of first event water?	<ul style="list-style-type: none"> • Water quality impacts are considered when determining the timing, pattern and volumes of releases from storage.
Why aren't irrigation channels capped?	<ul style="list-style-type: none"> • It is up to industry to deal with efficiency beyond the meter. However, there have been a number of state and Commonwealth programs over the years that have improved the efficiency of irrigation and water delivery schemes, such as piped domestic and stock schemes. • The cost of capping or piping major irrigation supplies often outweighs the value or benefit of the water saved, particularly when compared to other water efficiency projects.
Before water sharing plans, there were industrial low security licences that were converted to general security. Should we look at bringing those back in e.g. feedlots?	<ul style="list-style-type: none"> • WaterNSW is consulting with its customers, including industrial users, on their critical needs. • There are no current plans to change licence categories. • The NSW Government will work closely with towns and industries to better understand the needs and help water users plan and adapt.
Concerns that the environmental flow in September 2018 wasn't a good use of water.	<ul style="list-style-type: none"> • Providing water for the river habitat is important during dry periods. • Both the Commonwealth Environmental Water Office (www.environment.gov.au/water/cewo) and the NSW Office of Environment & Heritage (www.environment.nsw.gov.au/topics/water/water-for-the-environment) publish information about the use of environmental water in NSW • The environmental water holders did not release all of their water but kept some water in storage for further critical environmental needs.
A few months ago the Chaffey Dam level dropped dramatically. A volume of water (40 ML) flowed over (Carole Gap). Where was this going?	<ul style="list-style-type: none"> • Releases of water from the dam are made in advance to deliver water to users in response to orders. Along the way, if ordered water is not taken or the weather changes, any excess flow goes past Carole Gap.

Pumping below dead storage at Chaffey Dam—the water quality is poor.	<ul style="list-style-type: none"> • There are no immediate plans to pump below the dead storage. • However, if this is necessary to meet critical water supply needs, then the impacts on water quality are considered.
The Peel aquifer has a sustainable yield of 9,000 ML/yr. Why do you send out bills based on licences for 50,000 ML?	<ul style="list-style-type: none"> • Prices are set by the Independent Pricing and Regulatory Tribunal New South Wales (IPART). Costs are divided by the number of licences to set the price. The same total cost still needs to be recovered from licence holders, regardless of the calculation used to determine individual charges.
Will a s324 restriction on Peel groundwater users be applied?	<ul style="list-style-type: none"> • Groundwater allocations in the Peel will be 51%, based on the rules in the water sharing plan. • There are no plans at this stage to introduce a s324 restriction on groundwater pumping in the Peel.
Why use three-year average of groundwater extraction to calculate sustainable yield?	<ul style="list-style-type: none"> • Groundwater sources are typically more stable, longer term sources of water. They don't respond as quickly to weather and climate as surface water. This makes them a useful buffer against drought and changing weather patterns. • The sustainable extraction limit is based on all available historic data. The three-year compliance period set by the water sharing plan allows high levels of extraction to be accommodated in the short term to meet the higher demand during droughts. The plan limits the period that these higher extraction volumes can continue by the three- or five-year rolling average, after which extraction is brought back down to the long-term average extraction limit by reducing allocations.

Table 5. Specific issues—Gunnedah

Specific issue—Gunnedah (Namoi)	Response
Why was the last of the water released from Keepit Dam? Why were the mines able to take the water?	<ul style="list-style-type: none"> • Walgett's main water supply is from the Namoi River. Towards the end of 2018, attempts were made to provide water to reach the end of the system to Walgett. The Commonwealth sought an environmental release of their water, so the decision was made to top up this release to extend the flow. • The water did reach Walgett, providing some much-needed water into its weir pool, as well as providing a last flow for stock and domestic and high security users. • If water hadn't been released, losses from evaporation in storage, as well as delivery losses, would have increased over the hot summer months, and the remaining water would not have been able to deliver the same benefits and outcomes. • All high security users were able to access this water for a short period of time. The mines hold high security licences.
What is being done about the impacts of deeper production bores on shallower domestic and stock bores?	<ul style="list-style-type: none"> • Licence holders are allowed to pump within their licence conditions. • This is a record dry period for the Namoi system, so reduced yields from shallower bores can be expected. • The NSW Government will continue to monitor the state of the groundwater resource and any further response required.

	<ul style="list-style-type: none"> NSW Government support is available to landholders seeking to improve their resilience to drought.
Monitoring bores in all zones should be telemetered. The federal minister stated that the bore monitoring network should be expanded.	<ul style="list-style-type: none"> The Namoi River basin currently has 88 telemetered monitoring bores, and 1209 actively monitored bores in total. Data from all telemetered and non-telemetered bores is available online at https://realtimedata.waternsw.com.au NSW would welcome Commonwealth funding to expand the telemetered network.
A study of river recharge should be undertaken now, while the river beds are dry.	<ul style="list-style-type: none"> A comprehensive network of long-running hydrometric data is the most valuable resource for assessing river recharge. The government will continue to explore how to improve the information available to manage the system.
Will allocation reductions apply to local water utilities?	<ul style="list-style-type: none"> No, only to aquifer access licences. Local water utility licences will receive full allocations for the upcoming water year.
When and how does the department apply temporary groundwater restrictions?	<ul style="list-style-type: none"> The Minister (or delegate) may temporarily restrict extraction, if necessary, to protect an aquifer or groundwater-dependent ecosystems, under section 324(2) of the <i>Water Management Act 2000</i>. Examples include where pumping is likely to impact stock and domestic river flows, or where there is significant groundwater contamination in a groundwater source. Reasons for decision are published on the department's website with any new temporary restriction order.
Are you assessing aquifer compaction and what are the tipping points?	<ul style="list-style-type: none"> The department is currently investigating land subsidence in the Lower Namoi associated with groundwater pumping. The results of this work are expected to be available at the end of 2019.
When and how is groundwater hotspots management applied?	<ul style="list-style-type: none"> In assessing applications for new bores, the predicted pumping impacts are estimated. If this assessment indicates that this pumping will affect the local area, we restrict the volume permitted to be extracted from the bore. In areas where there has been a long-term decline in groundwater levels, local restrictions on trading in water to these areas are introduced.
What is happening with groundwater in the Oxley Basin—need information on levels and extractions	<ul style="list-style-type: none"> Water level information for monitoring sites in the Gunnedah–Oxley Basin can be accessed at the WaterNSW website: https://realtimedata.waternsw.com.au/- under the 'All Groundwater Sites details' or 'Groundwater (telemetered)' sections. The manual (not telemetered data) may still be 2018 data, and will be updated online when available. The metered groundwater extraction data can be access at a water source scale at the NSW Public Water Register waterregister.waternsw.com.au - option 3 and then option 2. The public register does not include use data for individual licence holders. The Murray–Darling Basin Porous Rock Groundwater Sharing Plan package and public exhibition consultation will provide more information on this area, including a resource description

	report for groundwater, as part of documents available through the plan exhibition.
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Table 6. Specific issues—Moree

Specific issue—Moree (Gwydir)	Response
Tenterfield is at risk, with town water supply less than 100 days. Can the approval for bore licences be fast-tracked?	<ul style="list-style-type: none"> Government agencies are working closely with council to ensure that the town won't run out of water Town water supply remains a priority. The department is reviewing approval processes with the aim of fast-tracking approvals where necessary. James McTavish, the Regional Town Water Supply Coordinator, is also helping and coordinating all agencies.
Is the water sharing plan going to be suspended? Concern about the impact of embargos/restrictions on upstream communities and economies.	<ul style="list-style-type: none"> There are no plans to suspend the water sharing plan in the Gwydir at this time. There is sufficient water in storage to meet high priority requirements in 2019–20. Restrictions on irrigation pumping are only imposed where it is necessary to protect flows for critical needs. The only water in the Barwon River at Collarenebri in the last 18 months was from environmental releases. Temporary restrictions were also needed to get water to Walgett.

Table 7. Specific issues—Bourke

Specific issue—Bourke (Barwon–Darling)	Response
In regards to graph of inflows to dams—does it consider the impacts of floodplain harvesting?	<ul style="list-style-type: none"> Floodplain harvesting generally occurs downstream of the major storages, not in the upper reaches of the catchments. Floodplain harvesting can only happen when there is overland flow, which has been rare in recent years.
Why don't the maps of the river systems show any connectivity between the Macquarie and the Barwon systems?	<ul style="list-style-type: none"> The Macquarie and Barwon systems only connect under specific conditions, for example: larger flow events past the Macquarie Marshes or effluent creeks. The regulated river water source under the water plan doesn't run all the way to the Barwon, and a number of maps (including the drought status map) show the regulated river water source.
Why is there a separation of water quality and water supply needs/criteria, when you need to supply water of a suitable quality to meet the needs of users?	<ul style="list-style-type: none"> Water quantity and quality are inextricably linked. When conditions are dry it is difficult to meet all water quality objectives. However, the criteria are separated as sometimes there may be events that need to be managed specifically for water quality.
250 GL was released from Burrendong in summer as environmental flows for the Macquarie Marshes, but only 90 GL reached the Marshes.	<ul style="list-style-type: none"> The 250 GL was released from Burrendong storage for a number of uses, including water to run the river, water for the environment and for consumptive purposes.

<p>Were the embargoes on the Qld side from Glenlyon Dam voluntary or compulsory?</p>	<ul style="list-style-type: none"> • Embargoes/restrictions are not required as it is a regulated river system. • Access needs to be announced, so if no announcement is made the water can't be accessed for irrigation.
<p>What are the impacts of higher sodium water on town supplies?</p>	<ul style="list-style-type: none"> • Bourke's emergency water supply is from a Great Artesian Basin bore. While this water meets water quality requirements for human consumption, the sodium levels are high in relation to the calcium levels which can lead to soil degradation issues if it is used to water gardens for an extended period of time. • High levels of different salts can also affect the taste and feel of the water. • Any people that require a low-sodium diet should consult with their GP or medical practitioner for advice.
<p>There was a survey in 1974 that identified BU8 as the best site between Louth and Bourke for a weir, as it pushes water up the Barwon and Culgoa. Can you look at this as part of the western weirs project?</p>	<ul style="list-style-type: none"> • NSW Government has announced \$4.5m to investigate the water management infrastructure along the Barwon–Darling River, under the Western Weirs Project. This will look at regulating structures along the length of the system and assess what needs to happen to improve water management.
<p>In the recent northern connectivity event, there was a ban on extraction. Part of this ban was lifted, but there wasn't enough explanation to the community as to why the ban was lifted.</p>	<ul style="list-style-type: none"> • The main objectives of the restriction on previous larger inflows had been achieved. • The additional natural inflows were too small to benefit downstream river systems. • The repeal enabled small farm operations to access minor flows and plant winter or fodder crops, which have not had access to water for a significant period. • The reasons for this decision have been published on the department's website: www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions/temporary-water-restriction-namoi-and-macquarie-water-sources-order-2019-section-324-order
<p>Do the upper and lower Darling alluvial aquifers recharge from seepage from river flows?</p>	<ul style="list-style-type: none"> • There is some recharge into the aquifers from river flows. The major recharge comes from major flood events, rather than general river flows.
<p>Have any studies been done on the social impact of the drought? Especially around the ability of people to buy drinking water when they only have access to poorer quality drinking water that may have health implications.</p>	<ul style="list-style-type: none"> • No specific studies have been undertaken • James McTavish, the NSW Regional Town Water Supply Coordinator, has been working in regional towns that have town water supply issues to see what needs to be done to help secure water supplies. This has included the provision of bottled water. • Government agencies are working closely together to better understand the social and health implications of the drought. • The government's drought support package includes considerable support for off-farm needs, including economic and regional stimulus, recognising the broad impact of the drought.

Table 8. Specific issues—Walgett

Specific issue – Walgett (Barwon–Darling)	Response
<p>How is Aboriginal input being sought for water sharing and water resource plans?</p> <p>Were Aboriginal groups consulted on the Extreme Events Policy?</p>	<ul style="list-style-type: none"> Aboriginal representatives are on the Barwon–Darling Stakeholder Advisory Panel for the plans. Further public consultation will occur on the water sharing plan when it is on public exhibition. All water resource plans include a detailed report on consultation with Aboriginal Nations. Initial input into the Extreme Events Policy was through Stakeholder Advisory Panels. Incident Response Guides are publicly exhibited as part of the water resource plans. The department intends to review the extreme events policy based on its implementation over the last year, and further consultation will be considered.
<p>Will Aboriginal representatives be on WaterNSW’s River Operations Stakeholder Consultative Committees (ROSCCOs)?</p>	<ul style="list-style-type: none"> Yes, the ROSCCOs will include a broad range of community representatives, not just water users.
<p>How far will the Northern Fish Flow event reach?</p>	<ul style="list-style-type: none"> The flow reached Brewarrina.
<p>Should not assume minimum inflows—drought stages should be declared earlier.</p>	<ul style="list-style-type: none"> Minimum inflows are assumed for the purpose of determining water allocations. However, for drought operational planning, several lower inflow sequences, including no inflow scenarios, are also used.
<p>What is happening with the floodplain management plans?</p>	<ul style="list-style-type: none"> The Barwon–Darling Floodplain Management Plan was completed in 2017. Details of this plan and other floodplain management plans can be found online: www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/plans
<p>What is happening with the buyback of A-class licences in the Barwon–Darling? Can B-class licences be converted to A-class?</p>	<ul style="list-style-type: none"> The buyback of A-class licences is a Commonwealth announcement—buyback is to be voluntary. B-class cannot be converted to A-class. The aim is to reduce extraction of low flows. The NSW Government will work with the Commonwealth Government to help ensure any buyback program is done in a way that minimises effects on the community.

Table 9. Specific issues—Pooncarie

Specific issue—Pooncarie (Lower Darling)	Response
<p>Where are the notes from the October meeting about the Menindee Sustainable Diversion Limit Adjustment Mechanism</p>	<ul style="list-style-type: none"> The Menindee Lakes Engagement Summary Report and presentations from the workshop are now available at: www.industry.nsw.gov.au/water/plans-programs/water-recovery-programs/sustainable-diversion-limits/menindee-

(SDLAM) project?	lakes
The water sharing plan (WSP) guidelines say they need to 'have regard to' river health. What confidence can we have that the Barwon WSP has done this?	<ul style="list-style-type: none"> • 'Have regard to' does mean that they are legally required to fully consider this issue. • The WSP is currently being reviewed. It will be publicly exhibited before it is finalised and submitted to the MDBA for accreditation.
Not all stock and domestic demand is captured as you only need a licence if you don't have river frontage.	<ul style="list-style-type: none"> • Volumes to run the river also ensure basic landholder rights are met. • The water sharing plans include estimates of the needs of basic landholder rights, as well as licenced stock and domestic requirements.
Why are we relying on held environmental water to get flows along the river?	<ul style="list-style-type: none"> • There is not sufficient water in upstream dams to run the northern rivers to the Barwon–Darling without affecting local critical needs. • Much of the water that is being used is water that is set aside by the rules of the water sharing plans for river health and running the river. • The Commonwealth and OEH allocated their licensed environmental water in Glenlyon and Copeton Dams to provide water down to the Barwon–Darling River under the Northern Fish Flow Event to improve fish habitat: www.environment.gov.au/water/cewo/catchment/northern-fish-flow-2019 • Nevertheless, inflows have been extremely low, and often unable to sustain flows in the rivers.
Priority should be to get fresh water to the bottom of the river. Setting a flow target and fresh flush rules at Wilcannia is not helpful for doing this.	<ul style="list-style-type: none"> • Water can be regulated and then managed down the Darling once it reaches the Menindee Lakes. • Wilcannia is the last place flow can be measured before it reaches the Menindee Lakes.
There is leakage from the weir at Pooncarie. Why isn't it being repaired while it's dry?	<ul style="list-style-type: none"> • Pooncarie Weir is a council weir. There are NSW Government funds that the council may be able to apply for if repairs to a town water supply are necessary.
What is the state of play with the fishway at the Main Weir at Lake Wetherell?	<ul style="list-style-type: none"> • Upgrading the Main Weir is part of the Menindee Lakes Water Saving Project. • Minister Littleproud has provided his approval to bring forward this part of the project. • The next step is for the NSW Government to consult with the community on the design and options for this fishway project.
If there is rain, how much is needed at Lake Wetherell to restart the river?	<ul style="list-style-type: none"> • The amount depends on the timing of the events. Three to five GL may be enough in winter to get water down the river and into the pools. • However, in hot weather, restarting the river with low flows of water can sometimes cause harm to fish populations because of the high water temperatures, so it will be important to liaise with fisheries experts to ensure the best possible outcomes.

<p>If there are smaller amounts of rain, can't we send water down in trickles?</p>	<ul style="list-style-type: none"> • It is more efficient to send it down as a bigger flow as losses are reduced and water can reach further downstream.
<p>When Deloitte was out here they asked if we should look at piping the Lower Darling.</p>	<ul style="list-style-type: none"> • Piping the river won't provide for critical environmental habitat. We're looking at how to best provide for both critical human needs as well as environmental habitat. • The NSW Government is not considering piping the Lower Darling. • However, the options that were examined by Deloitte included provision of emergency water supplied through a pipeline.

Table 10. Specific issues—Wentworth

Specific issue— Wentworth (Murray)	Response
<p>How river do gauges record low and no flows?</p>	<ul style="list-style-type: none"> • Gauges measure the height of water in the river. If there is no water in the river, the lowest level on the sensor is recorded. When the river starts to flow again, WaterNSW recalibrates the gauges.
<p>What is the NSW position on Murray River channel share; 50/50 or current status?</p>	<ul style="list-style-type: none"> • The position of NSW is a 50/50 share. • We are working closely with the Victorian Government and the MDBA to find a long-term resolution to sharing the channel capacity on the Murray.
<p>There has been a huge amount of irrigation development on the Victorian side. The development on the NSW side is starting to catch up; have we accounted for this?</p>	<ul style="list-style-type: none"> • The NSW Government is aware that there are issues around internal capacity sharing, and significant development is underway or proposed. • There are risks that supplies cannot be met under certain conditions. In recent years this has yet to be realised. • We are working closely with the Victorian Government and the MDBA to find a long-term resolution to sharing the channel capacity on the Murray.
<p>If we are facing challenges in being able to deliver allocations it would be good to be able to let users know.</p>	<ul style="list-style-type: none"> • The department—in its Water Allocations Statements—and WaterNSW—through its Customer Notices—advise of any delivery issues.
<p>If Sunraysia is sitting at 100% allocation but has 50% pumping restrictions, what are the options?</p>	<ul style="list-style-type: none"> • There are agreements with Murray Irrigation to get water through the Barmah Choke, but it depends on other river operations. • We are yet to encounter a shortfall, and there is no current agreement with other governments. We will work through options with governments.
<p>Can water be moved from Cawndilla Lake back into the Darling River?</p>	<ul style="list-style-type: none"> • When Cawndilla and Menindee Lakes separate, water can only be moved out of Cawndilla via the Anabranh. Water can't be moved back directly to the Darling River.
<p>What is the capacity to access water out of Talbingo and other Snowy Hydro dams?</p>	<ul style="list-style-type: none"> • Snowy Hydro Limited's water licence requires it to release a minimum amount of water down the system each year.

	There is no requirement on the timing of these releases.
Have any studies been done on groundwater around Menindee Lakes?	<ul style="list-style-type: none"> • Yes. There is a small freshwater lens under Menindee Lakes. Groundwater outside of this is saline.
Do evaporation losses also include losses to aquifer recharge?	<ul style="list-style-type: none"> • WaterNSW uses Bureau of Meteorology information to calculate evaporation losses. Part of the losses from the system would be seepage to groundwater, but this isn't directly measured. • WaterNSW also use a water balance to measure how much water has actually been lost.
Why does WaterNSW stop council from letting us water golf courses, especially when they water parks and ovals?	<ul style="list-style-type: none"> • WaterNSW doesn't control how councils use water. • There is a restriction within the trade rules set by the water sharing plan, and the department is looking at if this can be changed.
In relation to the new metering rules, how many need to become compliant?	<ul style="list-style-type: none"> • Around 21,000 meters will need to be compliant with the new rules over a five-year rollout. More information is in this factsheet - www.industry.nsw.gov.au/__data/assets/pdf_file/0017/205451/Works-requiring-a-meter-industry-guide.pdf.

Table 11. Specific issues—Finley

Specific Issue—Finley (Murray)	Response
The Murrumbidgee and Murray critical water advisory panels should be separated	<ul style="list-style-type: none"> • At this time, Murray and Murrumbidgee rivers are still only in Stage 2 (emerging) drought. Normal rules are still in place. If the drought escalates, separation of the two can be considered.
Environmental requirements should be met through conveyance water. Why can't operational losses be counted as environmental water?	<ul style="list-style-type: none"> • There are environmental requirements that need to be met and this is achieved through both the rules in the water sharing plan and held environmental water. Conveyance water alone could not meet environmental needs. • The existing environmental benefits from operational losses are factored already into the Basin Plan modelling.
Why did the allocation statement last year indicate that allocations could be 14% for general security?	<ul style="list-style-type: none"> • The allocation statement in August indicated that in very dry conditions (which are expected to occur 1 out of every 10 years), a 14% allocation to general security would be likely by 1 February 2019. • The inflows that occurred were lower than under this scenario. The probability scenarios are only provided to assist irrigators in understanding what allocations may be under various inflows; they are not a guarantee of allocations.
Why did the MDBA operate the system so that overbank flows occurred in the Barmah Millewa Forest and excessive losses resulted? Why wasn't water delivered through Murray Irrigation Limited?	<ul style="list-style-type: none"> • The usual tributary inflows did not occur to meet downstream orders due to the dry conditions. Water had to be released to prevent a shortfall in delivery. • In September 2018, once a temporary agreement between Murray Irrigation Limited (MIL) and WaterNSW was reached, water was also transferred around the Barmah Choke through MIL infrastructure. While the losses were higher than normal—

	<p>around 950 GL—they were not excessive. The normal budget for losses is around 800 to 850 GL.</p> <ul style="list-style-type: none"> • The MDBA has undertaken a review, available online: https://www.mdba.gov.au/publications/mdba-reports/conveyance-losses-river-murray-system
<p>Why has the water sharing plan been converted from a state plan to a Commonwealth plan, operating under two sets of rules?</p>	<ul style="list-style-type: none"> • The water sharing plan is still a state plan. It will become part of a broader water resource plan that is required under the <i>Basin Plan 2012</i>. There is only one set of rules and the water sharing plan is what is directly relevant to water users. • The Murray–Darling Basin Agreement remains the overarching agreement for managing the shared resource between NSW, SA and Victoria.
<p>What has happened to the National Water Initiative (NWI)?</p>	<ul style="list-style-type: none"> • The principles are still relevant and applied. • The Productivity Commission has recommended that the NWI be refreshed and updated. • Governments across Australia are working on how the NWI can be refreshed and updated.
<p>Why doesn't MDBA manage flows in South Australia?</p>	<ul style="list-style-type: none"> • The Murray–Darling Agreement provides flow to SA border. • While South Australia is responsible for managing flows once they cross the border, the state is still subject to the <i>Basin Plan 2012</i> and is required to manage water within that framework.
<p>Are biosecurity concerns being considered in managing water?</p>	<ul style="list-style-type: none"> • Water quality is monitored and is considered in managing releases. WaterNSW is working with NSW Department of Primary Industries—Fisheries to identify critical fish habitat and requirements.

Table 12. Specific issues—Deniliquin

Specific Issue—Deniliquin (Murray)	Response
Are more high security licences being issued?	<ul style="list-style-type: none"> No. Water users are required to trade on the market to obtain additional entitlement.
What impact is the 10 GL for Broken Hill having on allocations to Murray general security users?	<ul style="list-style-type: none"> Minimal—10 GL is only a small volume compared to other Murray entitlements. In most years, as the water for Broken Hill is no longer coming from the Lower Darling, there will be additional flow into the Murray from the Darling.
Why is the Murray in Tier 1 water sharing under the Murray–Darling Basin Agreement, when NSW users are facing restrictions?	<ul style="list-style-type: none"> The tiers relate to the water available in the bulk system under the Murray Darling Basin Agreement. Critical human needs are still being met, and there is sufficient water to run the river. Should the available water in the bulk system reduce further, we may enter Tier 2 arrangements in the future.
Losses are increasing because of increased development downstream and environmental water deliveries. How is this accounted for?	<ul style="list-style-type: none"> Sharing of losses and tributary flows are set out under the Murray–Darling Basin Agreement. The loss-sharing arrangements currently remain the same, regardless of further development.
What is being done about removing constraints so that water deliverability can be improved?	<ul style="list-style-type: none"> The MDBA is exploring ways to improve the capacity of the Barmah Choke. The NSW Government has recently received pre construction funding from the Commonwealth Government for constraints management projects, which are designed to improve the flow of environmental water through the system. More information at www.industry.nsw.gov.au/water/basins-catchments/murray-darling/constraints
If the Menindee Lakes Water Savings Project does not go ahead, where will the additional water for the environment be purchased from?	<ul style="list-style-type: none"> If Sustainable Diversion Limit Adjustment Mechanism projects, such as the Menindee Lakes project, do not proceed, then additional water recovery will be required. This recovery would be shared across the three states, and is the responsibility of the Commonwealth.
Why did flooding occur below Hume Dam in 2016?	<ul style="list-style-type: none"> Pre-releases were made by the MDBA to reduce downstream flooding, but more inflows occurred. The releases were managed by the MDBA as well as possible under the circumstances. Further information is available online here: www.mdba.gov.au/river-murray-system/running-river-murray/flood-management-hume-dam
Are Bureau of Meteorology (BOM) forecasts based on all records or just recent records?	<ul style="list-style-type: none"> Information on how the BOM calculates its climate outlooks is available at: www.bom.gov.au/climate/ahead/about/#tabs=About-the-outlook
Is the science behind the groundwater sustainable diversion limits (SDLs) going to be reviewed?	<ul style="list-style-type: none"> The SDLs are set in the <i>Basin Plan 2012</i>. There is no consideration at this time to review the SDLs. Some groundwater SDLs were reviewed after the <i>Basin Plan 2012</i> was made and these were revised by an amendment to the

	Basin Plan in 2018.
Is history of use taken into account in setting groundwater extraction limits?	<ul style="list-style-type: none"> No, extraction limits are based on the long-term average recharge to ensure the long term sustainability of the resource.
What is considered when approving new bores?	<ul style="list-style-type: none"> The department considers the range of impacts on existing users, the environment and the river. An information sheet is available at: www.industry.nsw.gov.au/__data/assets/pdf_file/0008/175931/Assessing-groundwater-applications-fact-sheet.pdf

Table 13. Specific issues—Warren

Specific issue —Warren (Macquarie)	Response
Can we get some more consistency in the units and timeframes used to report inflows and outflows in the monthly water allocation statements?	<ul style="list-style-type: none"> The department will continue to explore improvements to the allocation statements, and this feedback will be considered.
The maps showing the drought classification of the rivers doesn't show the lower Macquarie or Macquarie Marshes. These areas are also suffering from drought.	<ul style="list-style-type: none"> The department's drought status maps provide an indication of river management challenges and options. Apart from the Barwon–Darling, the drought status maps only cover the regulated rivers. Noted that some unregulated river systems that receive water from the regulated river do not have their status shown on the map. For a more complete overview of areas affected by drought in NSW, the Department of Primary Industries produces a regular map that covers the whole NSW land area available at: www.dpi.nsw.gov.au/climate-and-emergencies/droughthub
What rules are being considered to get water from the Macquarie River to restart flows in the Barwon–Darling River?	<ul style="list-style-type: none"> The Macquarie River is not as well connected as some other northern river systems. Restrictions on access need to consider a large range of possible individual events.
Under first-flush rules in the northern basin, would pumping be allowed in unregulated systems?	<ul style="list-style-type: none"> Options for managing this are currently being developed. In the 30 March event, unregulated river irrigation was restricted in the same way as regulated river irrigation.
What is an example of a critical water user whose non-supply may have a prohibitively high social or economic cost?	<ul style="list-style-type: none"> Dubbo Zoo would be one example. It has a high security licence. A shortfall would have animal welfare as well as social and economic impacts for the Dubbo community, as it is a major employer and tourist attraction for the region.
Has a decision been made on whether we will be able to access any 2018–19 carryover water? Will any trade be allowed between the	<ul style="list-style-type: none"> The 1 July water allocation statement will advise the position on carryover in the Macquarie and any trade restrictions. The outlook published on 13 May 2019 indicated that no access to general security water would be likely from 1 July, and that trade between the Cudgegong and Macquarie would likely be

Cudgegong and Macquarie?	affected.
Does river water contribute to groundwater allocations?	<ul style="list-style-type: none"> • River recharge is considered in the long-term average recharge on which the groundwater extraction limit is based.
Have you thought about artificially recharging groundwater?	<ul style="list-style-type: none"> • Yes, recharging of groundwater aquifers is one option that is being considered to help drought proof some areas of NSW. • While this may be an option in some cases, it may have higher costs or losses than other options, and many aquifers would not be suitable.
For groundwater pumpers, are you looking at putting on a drawdown trigger/restriction on pumping as well as an extraction limit?	<ul style="list-style-type: none"> • Aquifer drawdown is one trigger if local extraction is excessive but this is typically managed by trade restrictions and individual extraction limits on production bores. • No additional restrictions are being considered at this time; however, the need for additional management options will be examined if the drought continues.
Are you looking at putting in additional dams to help improve town water management and to help the pulsing of the river?	<ul style="list-style-type: none"> • Investigations are focused on: <ul style="list-style-type: none"> ○ raising the height of the Warren weir with shutters that can be opened if needed ○ installing block banks at strategic points for fish habitat and stock and domestic supply ○ consulting with stock and domestic users along the different systems to see how long they can go between pulses. • Longer term, a regional water strategy is being developed that will examine the water needs and options for the next 30 years.
Since Burrendong Dam, a lot of the big holes in the river have silted up. Have you thought about cleaning them out?	<ul style="list-style-type: none"> • WaterNSW made a commitment recently at the River Operations Stakeholder Consultative Committees meeting to work with NSW Department of Primary Industries—Fisheries to identify suitable holes.
What is happening with Albert Priest canal? It has been leaking.	<ul style="list-style-type: none"> • There are considerable losses associated with delivering water along the Albert Priest Channel • The NSW Government has announced \$2 million in funding for critical maintenance of the channel, and \$8.2 million for a second water storage at Nyngan • In addition to these short-term works, a long-term solution will be explored through the regional water strategy that is being developed for the area.
Do you know how much the capacity of Burrendong Dam has changed since it was first built and now?	<ul style="list-style-type: none"> • A survey of Burrendong is currently underway to assess current storage capacity. Surveys are also being done in other storages that are near empty.
Gum Cowal system last had water in September 2018. When is that system likely to have another chance of water?	<ul style="list-style-type: none"> • The ability to supply this system depends on tributary flows. The needs of the Gum Cowal will have to be compared against other demands on these flows.
Release of environmental flows is planned over a three-year period. Could the planning timeframe be increased (e.g.	<ul style="list-style-type: none"> • Operational plans are made by the OEH's Environmental Flows Reference Group. Following the current conditions, the timeframe of these plans may be considered. • Under the <i>Basin Plan 2012</i>, nine Long Term Water Plans are

10 years)?	being developed for catchments across NSW, setting objectives for five, 10 and 20 year timeframes.
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Table 14. Specific issues—Forbes

Specific Issue – Forbes (Lachlan)	Response
When are suspensions in allocation likely to be announced?	<ul style="list-style-type: none"> The announcements on 1 July advise allocations that will be available in the 2019–20 water year.
Is it correct that we could all start our pumps tomorrow and pump 100% of the water in our accounts, but come 1 July we can only access a reduced percentage of that?	<ul style="list-style-type: none"> There are no restrictions on accessing allocations until the end of the 2018/19 water year on 30 June. However, the water would not be able to be delivered in that time. 1 July is the start of the new water year when allocations are re-set.
The base flow over the Booligal Weir was lifted during the summer in response to the fish kills at Menindee. Whose account did this water come from?	<ul style="list-style-type: none"> The base flow over Booligal Weir in summer is 50 ML/day. OEH asked for the flow to be lifted to about 80 ML/day for a period of time. The water above the 50 ML base flow was debited from the water quality allowance.
Is the drawdown in groundwater in the Marsden aquifer an impact of extraction by Lake Cowal Gold Mine?	<ul style="list-style-type: none"> The mine and other users are causing the drawdown. Due to the structure of the groundwater source, you get quick changes in groundwater levels from extraction.
Will there be restrictions on groundwater allocations and what they will be?	<ul style="list-style-type: none"> Groundwater allocations in the Lower Lachlan are based on a three- year rolling average of extractions. If the extraction exceeds the long term average limit (108 GL in Lower Lachlan), then a response is put in place to reduce pumping to the limit. Meter reading data for the 2018–19 year is not yet available, so allocations cannot yet be determined.
Do you have monitoring which shows how much drawdown has come from specific extraction bores?	<ul style="list-style-type: none"> Groundwater level monitoring data shows the cumulative impacts of pumping within an area. In conjunction with metered groundwater extraction, it is possible to identify the relative contribution of drawdown in an area from pumping bores.
Is any monitoring done to determine if surface subsidence occurs from too much groundwater extraction?	<ul style="list-style-type: none"> There is no monitoring of land subsidence associated with groundwater pumping in the Lachlan valley.
Part of the substantial charges we pay to WaterNSW is for meter readers. Where are the staff to do this? We get our meters read once a year.	<ul style="list-style-type: none"> More staff have been hired. It is a trade-off; if the meters are read more frequently, more staff are needed, which will result in higher meter reading charges.
For surface water allocations, at the start of each water year you are looking at a three-year water planning period and this is reset every year. Does this mean that you are always	<ul style="list-style-type: none"> While yearly allocations are made on 1 July at the start of the water year, every month the inflows received are assessed against what we predicted. If the inflows are above what was expected, the allocations for the year increase. Wyangala Dam is managed to provide at least a two-year reserve for critical

under-estimating the water that is available for allocation?	water uses.
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Table 15. Specific issues—Griffith

Specific issue—Griffith (Murrumbidgee)	Response
Would Murrumbidgee have been in Stage 3 during the millennium drought?	<ul style="list-style-type: none"> We haven't applied these drought stages retrospectively. However, it is likely to have been in at least stage 3: given the water sharing plan was suspended from 2006 to 2011.
Do permanent plantings on general security allocation get priority?	<ul style="list-style-type: none"> No, allocations are made to the category of licence, not what the water is used for.
Murrumbidgee Irrigation Corporation is treating users on the same category differently.	<ul style="list-style-type: none"> How Murrumbidgee Irrigation manages the water within their area is their responsibility. However, the department will follow up with Murrumbidgee Irrigation.
Why are water charges calculated on full high security entitlement, when the normal allocation is 95%?	<ul style="list-style-type: none"> How water charges are calculated does not change the requirement that costs need to be recovered. If the charge was based on 95% allocation, the same revenue would still be recovered.
The 95% high security allocation rule in the water sharing plan should be reviewed.	<ul style="list-style-type: none"> This rule was agreed in the water sharing plan in 2004. However, if there is a view that it should be changed, then a submission should be made on the draft plan that is now on exhibition. Information on the draft plan and making a submission is at www.industry.nsw.gov.au/water/plans-programs/water-resource-plans/drafts/murrumbidgee-surface
No new groundwater licences should be issued. It is activating unused water and causing the extraction limit to be breached. Users have already had their entitlements reduced under the previous entitlement reduction program.	<ul style="list-style-type: none"> No new entitlement is being issued, only licences with a zero share. However, we acknowledge that this is a concern for existing water users. Trading provides the only means for new users or those who need more entitlement to gain access to groundwater, as no new entitlement will be issued.
Will groundwater allocation reductions apply equally to all zones in the Lower Murrumbidgee?	<ul style="list-style-type: none"> Yes. Extraction is assessed across the whole of the groundwater source and any allocation reductions are based on this.

Table 16. Specific issues—Hay

Specific issue—Hay (Murrumbidgee)	Response
Why isn't the Commonwealth environmental water given to irrigators during drought?	<ul style="list-style-type: none"> Environmental water is needed to underpin the health of the river system. Environmental water was recently used to dissipate algal blooms in the lower Murrumbidgee River, which improved water quality for users as well.

	<ul style="list-style-type: none"> During dry times, licensed environmental water holders are also impacted by low or zero allocations.
How is environmental water metered?	<ul style="list-style-type: none"> If released to stay in the river, it is calculated at a flow gauging station. If diverted, it is measured through a meter.
Why didn't the Murrumbidgee meters stay in government ownership?	<ul style="list-style-type: none"> Following the <i>Independent investigation into NSW water management and compliance</i>—interim and final reports by Ken Matthews, AO, and consultation in 2018, the NSW Government announced that meters would be privately owned. This is consistent with the user-pays principle and will ensure clear compliance responsibilities for water users. Affected water users will be consulted later this year.
End-of-system losses should be re-credited to Murrumbidgee users, as losses benefit Murray. Irrigators. We need a system where they can easily cancel orders.	<ul style="list-style-type: none"> River operators run the system to reduce losses as far as possible. However, if water is ordered and not used, then this contributes to losses. WaterNSW will investigate the cancelling of orders through iWAS.
Will any allocation reductions in the Lower Murrumbidgee Deep groundwater source apply across all zones?	<ul style="list-style-type: none"> Yes. Extraction is assessed across the whole of the groundwater source and any allocation reductions are based on this.
Why is the 70% drawdown limit so high?	<ul style="list-style-type: none"> The 70% drawdown limit relates to the available head above the top of the productive aquifer. This is a more conservative approach than the limits in other systems across NSW, as it ensures the pumping drawdowns do not go below the top of the aquifer.

Table 17. Specific issues—Coleambally

Specific Issue – Coleambally (Murrumbidgee)	Response
Who makes decisions on water allocations?	<ul style="list-style-type: none"> The department is delegated the responsibility for making water allocation decisions. It is important that allocations are based on a consistent and transparent approach. The department provides regular water allocation statements describing the resource available and different requirements: www.industry.nsw.gov.au/__data/assets/pdf_file/0004/166279/Ho-w-water-is-shared-in-the-regulated-murrumbidgee-valley.pdf
Have additional resources been committed to groundwater compliance?	<ul style="list-style-type: none"> The Natural Resources Access Regulator (NRAR) undertakes proactive monitoring and auditing across the state. The NRAR's investigations and enforcement program is focused on providing timely, risk-based responses to public reports of groundwater incidents. Targeted compliance campaigns are developed based on monitoring and auditing data. These campaigns can focus on an industry, specific activity, geographical location or an emerging regulatory issue. A targeted campaign is being considered to look at groundwater

	extraction limits in the lower Murrumbidgee.
Does the extraction limit for groundwater increase if new bores are approved?	<ul style="list-style-type: none"> No, extractions must be within the extraction limit. New access licences for commercial purposes can only be obtained by purchasing existing entitlement. All new production bores are individually assessed to ensure local impacts are managed.

Location details

Table 18. Meeting details

Date (2019)	Location	No. of attendees	Groups represented
Wednesday 22 May	Tamworth	50 people	Liverpool Plains Shire Council, Tamworth Regional Council, Gunnedah Shire Council, Peel Valley Water Users Association, NSW Farmers, Hunter H2O, OEH, Landholders
Thursday 23 May	Goondiwindi	16 people	Goondiwindi Regional Council, Cotton Australia, Qld Cotton, MDBA, CEWO, Landholders
Friday 24 May	Moree	30 people	Moree Plains Shire Council, Tenterfield Shire Council, Gwydir Valley Irrigators Association, OEH, CEWO, Cotton Australia, NSW Farmers, Landholders
Monday 27 May	Wentworth	19 people	Wentworth Shire Council, Rural financial counsellors, Western Murray Irrigation, AgVic, Irrigators, Coolgardie Citrus
Tuesday 28 May	Pooncarie	18 people	Landholders, MDBA, CEWO, Local Land Service
Wednesday 29 May	Bourke	24 people	Bourke Shire Council, Brewarrina Shire Council, Barwon Darling Water, Western NSW Local Health District, NSW Farmers, MDBA
Thursday 30 May	Warren	60 people	Warren Shire Council, Bogan Shire Council, Narramine Shire Council, Orana Water Utility Alliance, Drought Support Team, Western NSW Health, Tritton Mines, Namoi Cotton Ltd, OEH, Qld Cotton, Landholders, Irrigators
Friday 31 May	Forbes	68 people	Forbes Shire Council, Parkes Shire Council, Lachlan Shire Council, Orange & region water security alliance, Evolution Mining, Northparkes Mines, Wiradjuri Rangers, Landholders, Irrigators
Monday 3 June	Finley	70 people	Federation Council, Murrumbidgee Shire Council, Murray Irrigation Limited, Riverina Fresh, MDBA, Landholders, Irrigators
Tuesday 4 June	Deniliquin	80 people	Murray River Council, Edward River Council, Office of Helen Dalton, MDBA, NSW Farmers, Local Land Services, Murrumbidgee Local Health District, Landholders, Irrigators
Tuesday 4 June	Hay	32 people	Murrumbidgee Shire Council, Murray River Council, YACTAC, Local Land Services, Landholders, Irrigators
Wednesday 5 June	Coleambally	80 people	Murrumbidgee Council, Coleambally Irrigation Co-operative Limited, Ricegrowers Association, Olam Group, Local Land Services
Wednesday 5 June	Griffith	60 people	Griffith City Council, Leeton Shire Council, Riverina Water, Plains Water, Griffith & District Citrus Growers Inc., Namoi Cotton, Webster Ltd, Landholders, Irrigators, Office of Sussan Ley, CEWO
Thursday 6 June	Gunnedah	40 people	Gunnedah Shire Council, Narrabri Shire Council, Whitehaven Coal, Lake Keepit Sailing Club,

			GrainCorp, Irrigators, Landholders
Friday 7 June	Walgett	10 people	Walgett Shire Council, Dharriwaa Elders Group, OEH, CEWO

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