



Implementation of the Murray-Darling Basin Plan 2023: Information request, New South Wales

The purpose of this request is to collect information for the Productivity Commission's 2023 assessment of the effectiveness of the implementation of the Murray-Darling Basin Plan and water resource plans. Your response will inform the assessment and any recommendations for improving the framework. This inquiry is required under the *Water Act 2007* (Cth) and is the second such inquiry conducted by the Commission – the previous assessment was conducted in 2018.

We plan to release a draft report in September and our final report is due on 19 December 2023. Further information about the inquiry, including the terms of reference, can be found on our [website](#).

Please find attached our call for submissions, which discusses the scope of our inquiry and sets out a number of questions. We invite you to provide a submission addressing these questions. We also ask that you address the more specific questions set out below, either in your submission or in this document.

Submissions and responses to information requests are due **31 July 2023**. However, given the importance of your agency's input and our tight timeframe, we would appreciate your submission and response earlier, if at all possible.

Please respond to each question and include any relevant documents or weblinks. If a major change is likely in a particular area between now and December, please indicate this in the relevant section, along with likely timing.

Clearly mark any information that is confidential and provide reasons. Information not marked as confidential may be cited in our report and published on our website. The questions in this information request may also be published.

Information request 1: Implementation challenges

1(a) What are the three biggest challenges the NSW government will face in implementing the Basin Plan over the next five years? How does the NSW government intend to address these challenges?

Response:

We refer you to the NSW Government submission to the Review that provides detailed information on the challenges in implementing components of the Basin Plan.

The most immediate challenge is delivery of supply and constraints projects by the 30 June 2024 statutory deadline. Concerns regarding the ability for States to deliver these projects has been flagged for a number of years - however flooding throughout 2022 limiting site access and impacting delivery schedules, ongoing supply chain impacts from the COVID pandemic, and



uncertainty around funding beyond current statutory deadlines have created additional risks and delays to project delivery. We are working with the Australian Government on revised project milestones to deliver as much as possible by the current deadline and Basin Ministers are currently in negotiations regarding an extension to some timeframes.

Another challenge for NSW is current Australian Government program design that we consider is limiting opportunities to explore and progress projects or initiatives that deliver good environmental outcomes for the Basin. NSW continues to advocate for a flexible approach to meeting the Basin Plan's water recovery targets including through new and innovative projects. Furthermore, for programs where participation is voluntary such as the Off-Farm Efficiency Measures Program, these must be designed in a way that incentivises participation by offering an attractive market multiplier that encourages uptake. This will be even more critical should the Australian Government seek to recover the 450 GL of additional environmental water through strategic water purchase as NSW strongly backs project-based efficiency measures and rule changes instead of water purchase.

The third significant challenge for the NSW is the lack of certainty for ongoing Australian Government funding to implement the Basin Plan. Current funding agreements for NSW to deliver supply and constraints projects cease as early as 31 October 2023. Without a guarantee that delivery timeframes will be extended beyond the current 30 June 2024 deadline, key staff in regional areas will be lost. This will further disrupt delivery schedules and risks eroding community and stakeholder trust for projects that are already contested and complex. We are working with the Australian Government to resolve ongoing funding to ensure these elements of the Basin Plan can be delivered and the ecological outcomes can be achieved. Funding to all Basin States for other Basin Plan implementation activities under the existing Federation Funding Agreement ceases on 30 June 2024. It is critical that ongoing funding arrangements are reached as soon as possible to ensure continuation of this Australian Government reform.

Information request 2: Water Resource Plans

2(a) Please describe the experience in getting WRPs accredited. What worked, what didn't and what improvements could be made? What contributed to the delays in meeting the extended 30 December 2019 deadline? How could the assessment and accreditation process have been more efficient?

Response:

We refer you to the NSW Government submission to the Review under 'Water Resource Plans – development and accreditation.'

2(b) Please describe how the NSW government's water planning and management practices have changed as a result of WRPs being developed for accreditation or implemented.

Response:



As stated in the NSW Government submission to the Review under 'Water Resource Plans – development and accreditation', WRPs have required only minimal changes to the management of groundwater and unregulated rivers across NSW and consequently, the contribution of the Basin Plan itself through the planning framework to improved outcomes in these water resources is likely to be limited.

A change to water planning because of the WRPs is seen in the amendment of water sharing plans (WSPs) to include sustainable diversion limits. While this required amendment of WSPs, the diversion limits closely follow the existing WSP long-term average annual extraction limits.

2(c) Please describe how WRPs interact with water sharing plans, regional water strategies and the NSW Water Strategy? How are the contributions of each of these water management instruments communicated to the communities they serve?

Response:

The NSW Water Strategy is a 20-year water strategy for NSW which will address challenges and opportunities for water management and service delivery, as well as set strategic direction for water service delivery and resource management in the long-term. The state-wide, high level NSW Water Strategy works in tandem with 12 regional water strategies (RWS) and two metropolitan water strategies which are set at a smaller scale and include a mix of water-related policy, planning and infrastructure investment decisions for the next 20 to 40 years. The NSW Water Strategy and RWSs investigate critical human water needs in each catchment – which are key elements of the Basin Plan and WRPs.

Water sharing plans (WSPs) are a statutory obligation under the *Water Management Act 2000* and set rules for access to water, trading and water supply work use and construction. They are 10–year plans which set the priorities and rules for sharing surface water and groundwater between environmental and extractive needs, and between different types of extractive use for towns, domestic and stock and Native Title use, and other industrial and agricultural uses.

In inland NSW, all existing WSPs are reviewed for consistency with the requirements of the Basin Plan and form a component of the relevant WRPs. WSPs are also key in the delivery of the NSW Water Strategy and RWS as policy decisions identified in the strategies may impact or be delivered by the WSPs. The NSW water policy and planning context is communicated in the NSW Water Strategy document which can be accessed here [About the Strategy | Water \(nsw.gov.au\)](https://www.nsw.gov.au/about-us/infrastructure/water/about-the-strategy-water).

A factsheet on the relationship between the RWS, WSPs and WRPs is also available here: [The relationship between regional water strategies, water sharing plans and water resource plans factsheet \(nsw.gov.au\)](https://www.nsw.gov.au/about-us/infrastructure/water/relationship-between-regional-water-strategies-water-sharing-plans-and-water-resource-plans-factsheet).

Where WSPs are replaced or amended, the Department of Planning and Environment – Water (DPE Water) will undertake consultation with stakeholders, which may include a formal public exhibition period, targeted consultation or other meetings or workshops, depending on the nature of the amendment proposed and the needs of stakeholders. DPE Water will notify licence holders



and other stakeholders when the review of a WSP is due to commence, and will collaborate with the Natural Resource Commission, consult with stakeholders and gather information to inform reviews.

RWS undergo public consultation while in draft form to communicate the aims and intent of the strategies, and to seek feedback from the communities they intend to serve. Information collected during public exhibition of the draft strategies are used to inform final versions of each strategy. The draft RWS and summaries of what we heard during the public exhibition periods is available here: <https://water.dpie.nsw.gov.au/plans-and-programs/regional-water-strategies/what-we-heard>

Stakeholders and community members can bring forward questions or clarifications on all strategies and plans through monthly Water engagement roundup webinars. More information on these and other feedback mechanisms can be accessed here [Water engagement roundup | Water \(nsw.gov.au\)](#).

2(d) Please provide an update on the status of the Floodplain Harvesting licensing rollout.

Response:

The Floodplain Harvesting licensing rollout is complete in the NSW Border Rivers, Gwydir, Macquarie and Barwon-Darling valleys. This equates to 80% of the volume taken through floodplain harvesting being licensed and measured. The licensing framework is anticipated to be complete for the Namoi valley by the end of 2023.

The Floodplain Harvesting Action Plan details how the NSW Floodplain Harvesting policy will be implemented. Quarterly progress reports are published on the DPE Water website and provide an update on the status of the licensing rollout. Quarterly progress reports from 2020 to 2023 are provided here: [Floodplain Harvesting Action Plan - Water in New South Wales \(nsw.gov.au\)](#).

More information regarding the licensing of floodplain harvesting can be viewed on the DPE Water website [Floodplain harvesting licensing - Water in New South Wales \(nsw.gov.au\)](#).

Information request 3: Water quality

3(a) Have there been any fish kill events in New South Wales related to the most recent flooding, other than the 2023 event at Menindee? Can you provide details about the inquiry into the 2023 fish kills at Menindee, including: scope, timeframe and who is undertaking the inquiry?

Response:

Fish deaths were recorded in several locations across NSW following the extensive flooding in 2022 and early 2023. Details are provided on the Department of Primary Industries - Fisheries website: [Fish kills in NSW \(dpi.nsw.gov.au\)](#).

Two reviews are being carried out in relation to the February-March 2023 fish deaths in the Darling-Baaka River, Menindee:



- The Office of the NSW Chief Scientist and Engineer is conducting an Independent Review. Information on the scope of the inquiry including its terms of reference is available online at: <https://www.chiefscientist.nsw.gov.au/independent-reports/menindee-fish-deaths>.
- The NSW Environmental Protection Authority (EPA) is conducting an investigation and associated fish and water sample testing. Information on the investigation has not yet been released but fish and water sample test results from 21 March to 18 May 2023 can be viewed here [Menindee fish deaths follow up: Darling-Barka River water tests \(nsw.gov.au\)](#).

Throughout the 2023 fish death event at Menindee, DPE Water also published weekly water quality updates on dissolved oxygen, available here: [Hypoxic blackwater - Water in New South Wales \(nsw.gov.au\)](#).

3(b) Have there been any incidents where water quality standards have not been met? If so, please provide reports.

Response:

It is unclear what water quality standards are referred to.

NSW is required under Schedule 12 of the Basin Plan to report annually on a range of different matters including water quality. Reporting since 2018-19 includes how NSW has regarded Basin Plan water quality targets when managing water flows and details management actions taken to meet dissolved oxygen, recreational water quality and salinity targets. Reports are available online here: [Basin Plan Implementation Reports 2021-22 \(mdba.gov.au\)](#).

3(c) How are water quality targets and indicators used in relation to river management in the Basin? What types of operational decisions (such as storage and movement) are made in trying to meet water quality targets or in responding to indicators?

Response:

Water quality objectives and management actions and mechanisms to meet them are set out in NSW WRPs, their relevant WSPs and Water Quality Management Plans. Measures that support the maintenance of water quality against the effects of salinity and other types of water quality degradation can include managing the construction and use of water supply works to minimise impacts on water quality and temporarily restricting access under the *Water Management Act 2000* s.324 when there are water shortages.

Operational decisions are made by WaterNSW in consultation with DPE Water, the Department of Primary Industries – Fisheries and other agencies to meet water quality objectives in fulfilling water orders. These operational decisions are often coordinated through various interagency forums such as the Hypoxic Blackwater Working Group led by DPE Water. If monitoring shows certain thresholds are reached for water quality incidents such as blue-green algae, hypoxic blackwater and drought, water management decisions are made according to the NSW Extreme Events Policy.



The NSW Extreme Events Policy sets up a framework to manage extreme events in a structured and proactive way. It provides a clear and transparent framework for making decisions during extreme events, including water quality incidents, around what decisions need to be made, when they are made and who makes them. Incident Response Guides (IRGs) outline the framework for managing extreme events for each major water source in the NSW Murray-Darling Basin based on the principles outlined in the Extreme Events Policy. Water management decisions made during water quality events are described in the IRGs.

The regulatory environment could be improved to provide water quality targets for river operators. Although as a matter of practice, river operators work with environmental water holders and government agencies to meet their needs for water quality objectives. There are also some exceptions, for example where WaterNSW are required to manage cold water pollution for releases from their dams (covered under *Protection of the Environment Operations Act 1997*).

3(d) In managing for water quality, how does the NSW government have regard to targets in Water Quality Management Strategies and those in the Basin Plan?

Response:

The NSW Government adopted the National Water Quality Management Strategy as its policy to manage the quality of waterways in NSW and protect water resources. It includes guidelines to support state and local governments, water authorities and industry to maintain and improve water quality according to local community environmental values and uses. These values and uses are outlined in the NSW Water Quality Objectives available online here: [Protecting and managing water quality \(environment.nsw.gov.au\)](https://environment.nsw.gov.au/protecting-and-managing-water-quality).

Water quality objectives and management actions and mechanisms to meet them are set out in NSW WRPs, their relevant WSPs and Water Quality Management Plans and reflected in annual reporting on Schedule 12 requirements under the Basin Plan. In planning for the use of water for the environment, risks are assessed for each individual environmental water release and mitigating actions planned where necessary to align with water quality targets in the Basin Plan. Risks and potential mitigations are recorded in the watering event descriptions as part of the environmental water management workflow system.

Information request 4: Critical human water needs (CHWNs)

4(a) Has the 2018 [NSW Extreme Events policy](#) been reviewed following the 2018-2020 drought and the 2022 floods? How have these extreme events shaped the development of water sharing rules in WRPs to meet CHWNs?

Response:

The NSW Extreme Events policy has been reviewed and an updated policy will be published on our website when available at: <https://water.dpie.nsw.gov.au/about-us/how-we-work/legislation-and-policies/extreme-events-policy>.



Incident Response Guides (IRGs) are the main avenue for which extreme events are managed in a water resource plan area and are included as a schedule of the NSW WRPs. The IRGs detail what management actions are put in place by which agencies when there is an emerging extreme water quality event. This may include suspending water sharing rules by applying section 324 or section 331 orders under the *NSW Water Management Act 2000* to restrict or prohibit water take and ensure CHWNs are met.

4(b) How does the NSW Government work with local water utilities to meet the CHWNs of Basin communities? What role does the Regulatory and Assurance Framework for Local Water Utilities (RAF) play in coordinating the drinking water needs of communities in the MDB with water management by DPIE?

Response:

NSW Government regulatory agencies responsible for overseeing and supporting local water utilities in the delivery of water supply and sewerage services within their own regulatory frameworks include:

- DPE Water
- NSW Health
- NSW Environment Protection Authority
- Office of Local Government
- Natural Resources Access Regulator
- Dams Safety NSW
- Independent Pricing and Regulatory Tribunal of NSW.

These agencies are referred to as the 'local water utility regulators' and work individually and collaboratively in line with the NSW Government sector core values of integrity, trust, service and accountability.

The local water utility regulators are implementing a collaboration framework to support delivery of regulator actions identified in DPE Water's [Roadmap to an improved regulatory framework for local water utilities](#) (actions 4.6, 4.7 and 4.8). The collaboration framework was developed by local water utility regulators and sets out the roles and responsibilities of local water utility regulators, and our approach to communication and coordination.

The Regulatory and Assurance Framework for Local Water Utilities (the RAF) came into effect in July 2022 and enables local water utilities to address risks and challenges based on locally developed plans and management systems. The advisory role of the local water utility regulators did not change as a result of the RAF. Information on the RAF is on the DPE Water website here [Regulatory and assurance framework for local water utilities - Water in New South Wales \(nsw.gov.au\)](#)



4(c) How does the NSW Government ensure that the MDBA River Murray System Annual Operating Plan and the WaterNSW Lower Darling Operations Plan interact effectively to deliver on the CHWN provisions set out in WRPs?

Response:

DPE Water and WaterNSW are represented on the Murray Darling Basin Authority's (MDBA) Water Liaison Working Group (WLWG) which provides operational oversight for the River Murray and inflowing tributaries.

Draft operating plans including the MDBA River Murray System Annual Operating Plan and the WaterNSW Lower Darling Operations Plan are discussed and updated quarterly at WLWG and coordinated to interact effectively.

The MDBA is responsible for ensuring conveyance water is available each year for CHWN delivery as required under Section 10.51 of the Basin Plan and included in the Incident Response Guides of NSW WRPs. States must certify annually that they have set aside the required volume of water for CHWN in their resource assessment.

4(d) How does the NSW Government engage with communities in the Basin regarding the CHWNs provisions in WRPs? Has the NSW Government sought community input regarding how best to communicate with affected communities on CHWNs?

Incident Response Guides (IGRs) are included as a Schedule of the NSW WRPs. Targeted consultation with stakeholder advisory panels and public exhibition informed the development of all WRPs. Section 2.2 of the IRGs outline stakeholder input during an emerging extreme event. This includes convening a Critical Water Advisory Panel comprising state and local government, and local stakeholder representatives. A communications and engagement plan will also be developed during an emerging extreme event to outline engagement activities with external stakeholders and affected parties including local councils and other water supply authorities, Aboriginal communities, environmental groups, and other water users. Operational WRPs and their incident response guides can be viewed on the MDBA's website: [List of state water resource plans | Murray–Darling Basin Authority \(mdba.gov.au\)](https://www.mdba.gov.au/list-of-state-water-resource-plans).

Information request 5: Environmental water planning and management

5(a) What have been the developments and changes in planned environmental water management (including cultural flows) since 2018?

Response:

Water sharing plans have more clearly described planned environmental water (PEW), resulting in improved clarity about responsibility for management of PEW accounts in NSW. Information on management of environmental water in NSW, including how water sharing plans deliver PEW can be found on the DPE Water website [Managing environmental water - Water in New South Wales \(nsw.gov.au\)](https://www.dpe.nsw.gov.au/managing-environmental-water).



As part of the Northern Basin Toolkit, NSW has also implemented measures such as coordinated delivery of water for the environment between Queensland, NSW and Commonwealth environmental water holders and improved real-time management and protection of water for the environment moving from Queensland into NSW.

As part of the NSW Water Strategy, DPE Water has committed to increasing Aboriginal ownership of and access to water for cultural and economic purposes. To achieve this objective, DPE Water is piloting the Cultural Watering Plans project. A cultural watering plan will outline how Aboriginal communities want to use their water rights to achieve cultural outcomes using water management language. More information is available online at: [Cultural Watering Plans | Water \(nsw.gov.au\)](https://www.nsw.gov.au/cultural-watering-plans).

5(b) What outcomes have been achieved via the provision of planned and held environmental water over the last 5 years? Please provide case studies.

Response:

The Water for the Environment Outcomes 2021-22 report summarises the use of water for the environment across New South Wales in the 2021–22 water year and highlights the ecological outcomes achieved for our regional environments and the communities that rely on them. The report can be viewed here: [Water for the Environment Outcomes 2021-22](https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/planning-and-reporting)

Previous annual outcomes reports from 2010-11 can also be viewed here: <https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/planning-and-reporting>

Achievement of environmental outcomes at an asset scale is also covered by Matter 8 5-yearly reporting required under Schedule 12 of the Basin Plan. A copy of the first five-yearly report is available here: <https://www.mdba.gov.au/publications-and-data/publications/basin-plan-5-yearly-reports-2020>

5(c) How helpful is MDBA guidance on preparing and revising long-term watering plans? How could it be improved?

Response:

Overall, the Basin Plan Framework including the advice provided by the MDBA provides good guidance for preparing and revising long-term watering plans (LTWPs). There is appropriate levels of detail and sufficient flexibility to allow NSW to prepare LTWPs that represent state and local catchment contexts.

However, the Framework lacks guidance on First Nations-led input to LTWPs, which would be useful in future revisions. Furthermore, the review and improvement of LTWPs and their many components is hindered by difficult delivery timeframes. States have been provided with funding from the Australian Government to for Basin Plan implementation activities such as development of LTWPs and MER programs. However, a lack of on-going resourcing commensurate to the lifespan of LTWPs should be addressed to improve LTWP implementation going forward.



5(d) What key changes have been made to NSW's long term environmental water plans and annual environmental watering priorities since 2018 to improve the effectiveness of environmental water, including during drought?

How does the NSW government consider climate change and variability in planning and prioritising environmental water?

Response:

The Department of Planning and Environment – Environment and Heritage Group (DPE EHG) manages the volume of water set aside for the environment to ensure essential environmental assets remain viable now and into the future. Long term water plans (LTWPs) must identify the long-term risks to environmental watering requirements of priority environmental assets, and this includes the risks associated with climate change. The LTWPs include management strategies to mitigate these risks.

LWTPs are being reviewed by DPE EHG. The review has a strong focus on improving guidance to manage water under a changing climate and improving First Nations engagement.

As part of its annual planning processes, DPE EHG has prioritised the rivers and wetlands that will receive water over the coming months and years. Our management approach is adaptive, and we revisit our priorities as the seasons change from dry times to floods and to the scenarios in between.

During dry conditions and drought, priorities for water delivery to environmental assets change. Some sites will end up going dry. This is natural for waterways that have natural wetting and drying phases. Water delivery is prioritised to maintain minimum flow rates and inundation to sites that are identified as critical drought refuges. More information can be found here:

<https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/planning-and-reporting/long-term-water-plans>

<https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/about-water-for-the-environment/managing-water-in-dry-times>

As detailed in the NSW Government submission to the Review, state statutory instruments already deal with a wide range of climate variability through water allocation frameworks, priorities for water and reserves in regulated systems, cease-to-pump levels in unregulated systems, and groundwater level management. Basin states also explicitly manage for extremes in climate events and climate sequences in our asset planning and dam safety, short-term and seasonal operations processes, long-term supply forecasting and modelling, and emergency management planning and response.

5(e) How do state annual watering priorities interconnect with Basin wide annual environmental watering priorities? Is there unnecessary overlap or duplication?



Should Basin Annual Environmental Watering Priorities be retained? If so, what role do they play and how could they be improved?

Response:

NSW uses [Environmental Water Advisory Groups](#) (EWAGs) in several valleys to guide and inform environmental watering decisions to achieve Basin Plan and LTWP objectives and targets. EWAGs were formed to draw on the expertise and experience of community members to help inform our work, and ensure the views and understanding of First Nations, local communities, industry, and environmental stakeholders are considered when priorities and planning decisions are made. They make sure the advice and reports they produce are consistent with the relevant water sharing plan for their regulated water source.

Issues raised by the Productivity Commission in 2018 regarding the effectiveness of annual watering priorities remain. There are issues with the close timing of the MDBA providing advice and NSW annual watering priority deadlines which mean advice cannot be incorporated in decision-making for annual watering. Alignment of these processes would allow states to directly respond to the MDBA's River Murray System Annual Operating Outlook for the Basin.

5(f) Where are the opportunities to simplify the Environmental Watering Plan (chapter 8 of the Murray-Darling Basin Plan) and its implementation, such as the environmental management framework, methods for identifying environmental assets and ecosystem functions, principles for prioritisation of environmental water and monitoring progress?

Response:

We refer you to the NSW Government submission to the Review under 'Environmental water planning and management.'

We do not have any suggestions to simplify Chapter 8 at this time. We will consider this question further in our input to the 2026 Basin Plan review.

5(g) What is the process for reviewing the effectiveness of Prerequisite Policy Measures (PPMs)?

What changes have been made to PPMs, since their introduction (or are in train), to improve their effectiveness?

Response:

Good progress has been made in NSW southern valleys on the development and implementation of PPM rules and transparency on water accounting.

The MDBA determined PPMs as being in effect by 1 July 2019. The NSW PPMs process includes an adaptive management framework with a process for annual review and evaluation to allow PPMs arrangements to evolve and improve over time. This annual review process is set out in the Procedures Manuals for the Murrumbidgee and NSW Murray-Lower Darling Rivers. Annual



evaluation and review reports have been prepared for the 2019-20 and 2020-21 water years. The Procedures manual and annual reports are on DPE Water's website [Prerequisite policy measures - Water in New South Wales \(nsw.gov.au\)](#).

NSW has also recently developed a draft PPMs Evaluation Framework to guide the ongoing and objective annual evaluation of the consistency, efficiency, and effectiveness of the implementation of PPMs in NSW. These criteria were selected to reflect the requirements for environmental water protections as described in the Basin-wide Environmental Water Protections Strategy adopted by Basin Officials Committee. The draft framework was recently applied to the 2021-22 annual evaluation and review report which is under preparation.

The Evaluation Framework and the 2021-22 report will be published on the Environmental Water Hub page of the DPE Water website once finalised: [Environmental water hub - Water in New South Wales \(nsw.gov.au\)](#).

In addition to the development of the draft PPMs Evaluation Framework, changes have been made to improve the effectiveness of PPMs in NSW. An example of this is being able to account and protect 'return flows' of water for the environment, and to allow held environmental water to be ordered from headwater storage during unregulated flow events. Changes include:

- Establishment of the NSW PPMs Working Group (established under the procedures manuals) providing increased collaboration and transparency between agencies
- Development of an accounting arrangement for delivery of environmental flows in the Wakool system
- Trial arrangement for delivery of environmental water to the Millewa Forest
- Shift from application of proportional losses to incremental losses for return flows from the Murrumbidgee River in the River Murray
- Development and application of loss lookup tables for return flows from the Lower Darling
- Development and application for return flows recognition for the Great Darling Anabranch
- Updating and publication of Procedures Manuals for the Murrumbidgee and NSW Murray-Lower Darling in December 2022
- Trial accounting arrangements in place for delivery of environmental water through the Niemur Regulator to facilitate winter flows on top of the Murray multi-site events
- Progressing accounting arrangements for assumed use for delivery of environmental water to Werai Forest

Note that the effectiveness of PPMs in providing for environmental outcomes is not considered by DPE Water as part of the ongoing review and evaluation of PPMs implementation.

5(h) What progress has been made since 2018 to increase First Nations' participation in decision-making, planning and delivery of environmental water?

Please provide examples of partnerships or case studies.



Response:

Five EWAGs and the Snowy Advisory Committee (SAC) have been established to work closely with the community, including First Nations representatives, to deliver environmental water to priority sites across the state. The aim of each EWAG and the SAC is to bring together knowledge and experience to advise on both planned and held environmental water. A further four EWAGs are being established.

NSW is reviewing its LTWPs to ensure they are meeting Basin Plan requirements. The review of the LTWPs seeks to better capture the watering priorities of First Nations. DPE EHG has partnered with Murray Lower Darling River Indigenous Nations (MILDRIN) to review the LTWPs and advise on the best approach to improve meaningful First Nations-led input.

DPE Water is leading implementation of the [Reconnecting River Country Program](#) under the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) to connect rivers to wetlands and floodplains to improve the health of Country in the Murray and Murrumbidgee valleys. This program works closely with First Nations communities, landholders and other affected stakeholders in a respectful, equitable and transparent way to ensure the program delivers community benefits and Basin Plan outcomes.

As part of delivering on the NSW Water Strategy NSW priority to recognise First Nations/Aboriginal People's right and values and increase access to and ownership of water for cultural and economic purposes, NSW is also developing an Aboriginal Water Strategy led by an Aboriginal team and establishing Regional Aboriginal Water Committees. The committees will help improve water management in NSW by giving greater recognition to Aboriginal water rights and interests, ensuring Aboriginal people can contribute to water management. More information on the committees is available online: [Regional Aboriginal Water Committees \(nsw.gov.au\)](#).

5(i) Are social and cultural outcomes considered in environmental watering decisions? If so, how?

What is the process to understand, achieve and report on cultural and social outcomes from environmental water use?

How are decisions of water prioritisation and use (including trade-offs) communicated to stakeholders?

Response:

Five EWAGs and the Snowy Advisory Committee (SAC) have been established to work closely with the community, including First Nations representatives, to deliver environmental water to priority sites across the state. The aim of each EWAG and the SAC is to bring together knowledge and experience to advise on both planned and held environmental water and consider social and cultural outcomes that can be achieved by delivering this water. A further four EWAGs are being established.



DPE EHG communicates watering decisions to stakeholders via communiques from EWAG meetings, media releases, website updates, and through regional community networks. For example, the Gwydir EWAG meeting communiques can be found here:

<https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/gwydir/environmental-water-advisory-group/group-meeting-communiques>

5(j) What actions is the NSW government taking to integrate environmental water planning and management with natural resource management?

Response:

As stated in the NSW Government submission to the Review under 'Gaps and opportunities for improved outcomes', integration of improved land management practices for enhanced environmental water outcomes can be improved. For example, a Basin-wide riparian land management program to address impacts to water quality would improve environmental outcomes achieved by water for the environment.

NSW has advocated for greater Australian Government investment in 'non-flow' (or complementary) measures including improved fish passage, diversion screening, cold water pollution mitigation, habitat rehabilitation and threatened species recovery to support greater outcomes from water recovered under the Basin Plan.

The NSW Water Strategy Implementation Plan 2022-24 includes several actions that aim to improve river, floodplain and aquifer ecosystem health, and system connectivity. These include finalising the regional water strategies to identify priority areas for targeted catchment management activities with input and involvement of NSW Local Land Services. More information on the Implementation Plan 2022-24 can be found online: [Implementation plan 2022-24 \(nsw.gov.au\)](https://www.nsw.gov.au/implementation-plan-2022-24).

NSW Local Land Services is currently delivering a number of projects which will contribute to outcomes, including:

- The Riparian Restoration Project to restore riparian areas suffering cumulative damage from recent droughts, bushfires and flooding across NSW
- Fencing Northern Basin Riverbanks Program to minimise the impacts of livestock on priority reaches in the northern Murray-Darling Basin
- Riverbank Rehabilitation Project to undertake targeted riverbank rehabilitation works in areas affected by the NSW storm and high rainfall events of February and March 2021.

More on these can be found on the LLS website: [Our major projects and programs – Local Land Services \(nsw.gov.au\)](https://www.nsw.gov.au/our-major-projects-and-programs-local-land-services).

5(k) What is the NSW government's environmental water trading policy? Is this public? If so please provide a weblink.



What trades in environmental water entitlements and allocations have been undertaken in the MDB since December 2018 (by date, catchment, volume and price)?

What were the proceeds from any water sales used for?

Response:

DPE EHG uses the water market to move water to where it is needed most and assist with paying water licence use fees and small infrastructure projects to improve environmental outcomes. Trades typically commit less than 5% of the water available to the environment and are a small proportion of the total trades made by other market participants. The proportion of water traded is carefully planned to ensure our ability to achieve environmental outcomes is not compromised.

Water trade information from 2018 is not available on the DPE EHG website, although water trade announcements and reporting from the year 2022-23 can be found here:

<https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/about-water-for-the-environment/understanding-water-trade/water-trade-announcements-and-reporting>.

Some data on previous years has been presented in the 2022-23 report to show trends. DPE Water also maintains a trade dashboard data visualisation tool to analyse volumes and prices of water allocations and entitlements being traded, available here:

<https://water.dpie.nsw.gov.au/licensing-and-trade/trade/trade-dashboard>

5(l) What processes are in place to coordinate watering activities with the Commonwealth Environmental Water Holder and other agencies and river operators to maximise environmental outcomes?

Where are the opportunities to improve coordination?

Response:

Watering activities are coordinated between state and Commonwealth environmental water holders through the Basin-scale Environmental Watering Committee and the supporting Southern Connected Basin Environmental Watering Committee and Northern Basin Environmental Watering Group. Members on these committees include environmental water policy and environmental water holder representatives from jurisdictions as well as river operators to coordinate the planning and delivery of water for the environment.

DPE EHG is responsible for the delivery of all water for the environment in NSW which includes water held by the Commonwealth Environmental Water Office (CEWO). DPE EHG and the CEWO work in partnership via an approved Partnership Agreement that outlines collaborative arrangements for the management of water for the environment in NSW. The Agreement is implemented via a series of Schedules that detail specific roles and responsibilities for the different components of environmental water management.



The Partnership Agreement 2020-25 – NSW Department of Planning, Industry and Environment (now Department of Planning and Environment) can be accessed from this webpage <https://www.dcceew.gov.au/water/cewo/publications/agreements-use-commonwealth-environmental-water>.

5(m) How is the role of the NSW government in environmental water planning and management communicated to communities (including during recent flood events)?

Response:

The DPE EHG website includes detailed information on the role of the NSW government in environmental water planning and management. For example:

- Water for the environment news: <https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/news>
- Planning and reporting: <https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/planning-and-reporting>

DPE Water also publishes updates during flood events. An example of this can be seen on the website: [Update on flood events in northwest NSW | Water](#).

DPE Water conducts community engagement activities frequently for the purpose of education or to seek feedback. A Water Engagement Roundup webinar is held monthly to provide the public with an update on consultation and engagement activities. Past webinars and a link to register for future webinars can be found here: <https://www.industry.nsw.gov.au/water/stakeholder-engagement/roundup>. More information on stakeholder engagement can be found here: <https://www.industry.nsw.gov.au/water/stakeholder-engagement>

5(n) Please provide the latest (point in time) data (or a link) on the NSW government's held water volume entitlements (GL LTDLE).

Do you report on the volume of held water used in a season and environmental outcomes of events? If so please provide links.

Response:

Data on the NSW Government's held water volume entitlements is available on the DPE EHG website.

Held environmental water: <https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/about-water-for-the-environment/current-water-holdings>

Annual outcomes reports: <https://www.environment.nsw.gov.au/topics/water/water-for-the-environment/planning-and-reporting>

DPE Water also maintains an Environmental water register that provides information on environmental water holdings for water users and the general public. The register can be accessed



here: <https://www.industry.nsw.gov.au/water/environmental-water-hub/public-register/environmental/licences>

Information request 6: Sustainable Diversion Limit Adjustment Mechanism (SDLAM): supply measures

6(a) SDL adjustment mechanism project delivery has been limited. A shortfall of 190-315 GL/y is expected against the supply measure offset, only one constraints project is expected to be completed by 2024, and efficiency projects under contract are expected to provide 26 GL/y of the 450 GL/y target.

- *What are the reasons for this?*
- *What is the NSW government doing, or planning to do, to address this?*

Response:

Challenges to project delivery have included:

- climatic challenges including bushfires, drought and floods,
- COVID-19 pandemic which constrained consultation and delivery and has resulted in increased costs and skill shortages,
- inefficiencies in program management arrangements by the Australian Government including protracted funding arrangement processes and negotiations

We refer you to the detailed content provided on this matter in the NSW Government submission to the Review - 'Delivery of supply, constraints, and efficiency measures.'

6(b) What is the status of the [accelerated funding](#) for the NSW supply and constraints projects? Have any project milestones been changed? Can the NSW government provide any internal reports on the program?

Response:

Information on the accelerated supply and constraints projects and status is available on the DPE Water website: [Sustainable Diversion Limit Adjustment Mechanism | Water \(nsw.gov.au\)](#).

Information request 7: SDLAM: constraints easing

7(a) Please provide any data available on the progress of constraints easement landholder negotiations.

Response:

We refer you to the NSW Government submission to the Review 'Delivery of supply, constraints, and efficiency measures' section for the status of NSW constraints projects under the Reconnecting River Country Program (RRCP), as well as detailed information that is available on the DPE Water website Reconnecting River Country Program | Water ([nsw.gov.au](#)).



The Reconnecting River Country Program (RRCP) is in development phase and an investment decision is required by the Australian Government before landholder negotiations on works and measures can commence.

Whilst landholder negotiations under the RRCP have not yet commenced, landholder negotiations under the Mid-Murray Anabranches (MMA) Project of the SDLAM Acceleration Program are underway. Negotiations on Tuppal Creek have been successful to date, success being defined as; 70% of agreements signed, relationships remaining positive and continued engagement toward construction commencement.

7(b) What are the key lessons from the constraints negotiations undertaken to date? What's worked well, and have negotiations been more successful in particular reaches or areas than in other locations? If so, why?

Response:

As per the above, the RRCP is in development phase and landholder negotiations have not yet commenced.

The Mid-Murray Anabranches (MMA) Project as part of the SDLAM Acceleration Program is being delivered as a demonstration project for RRCP in Yarrawonga to Wakool focusing on access impacts (i.e., bridges, culverts & rock crossings) only. The key lessons from MMA Project to date are:

- Scope needs to be clearly defined prior to negotiating with landholders, i.e., what is being considered and what is not (with clear reasoning).
- System and processes for Landholder Works Agreements need to be established prior to commencement of negotiation
- Be open & transparent in communication, process and timelines with landholders.
- Regular contact with key DPE staff and maintaining continuity of staff is recommended, building rapport and trust with landholders is key to ensure continued engagement.
- Each reach in the RRCP will have varying landholder expectations and will include stakeholders with more complex requirements that will require time and attention in executing agreements, with timelines consequently placed at risk.

7(c) Describe the community engagement process for constraints easement landholder negotiations, and provide any examples of community response to the projects.

Response:

During the RRCP development phase, the program is testing and seeking feedback on policy positions and methodologies with reference groups (private landholder and First Nations) and a program advisory committee. This includes discussion and feedback on the mitigation works and



measures, compensation approach, easements, negotiation assistance and agreements. The program is also expanding stakeholder engagement to understand potential mitigation options, benefits and impacts at the property scale to inform program design.

Information request 8: Northern Basin Toolkit

8(a) Please provide the business cases that the NSW government prepared for the Toolkit projects.

Response:

Information on the Northern Basin Toolkit can be found on the DPE Water website [Northern Basin Toolkit | Water \(nsw.gov.au\)](https://www.dpe.nsw.gov.au/northern-basin-toolkit).

The business cases are sensitive to the NSW Government, and DPE Water is happy to discuss how relevant information may be able to be provided to the Commission on a confidential basis.

Information request 9: Climate change

9. How has the NSW government factored climate change into the development and implementation of its WRPs? In your response, please address:

- whether climate risks are assessed, and management responses developed, at a local or WRP area level*
- how consistent and comparable are climate models and risk assessment methods across different WRPs, and*
- how climate change is considered in setting rules for planned environmental water.*

Response:

A risk assessment is carried out during the development phase of each WRP which takes into account risks to water available for the environment and other users due to climate change. The risk assessment uses three different climate change scenarios – a wet, median and dry scenario – to determine the level of water availability as a result of climate change, at water source scale. Risk assessment methods are consistent across WRPs.

More information on the risk assessment methodology is located on the DPE Water website here: [Risk Assessments | Water \(nsw.gov.au\)](https://www.dpe.nsw.gov.au/risk-assessments). Specific WRP risk assessments can be viewed in the schedules of the relevant WRP.

Information request 10: First Nations water interests

10(a) How does the NSW government engage First Nations people in managing water resources in the Basin?

Response:



As detailed in the NSW Government submission, NSW is developing an Aboriginal Water Strategy that will recognise Aboriginal rights, values, and knowledge in water, strengthen involvement and influence in water management and protect Aboriginal culture related to water. The Strategy is being informed by direct engagement and co-design with Aboriginal people and communities to understand their water aspirations. More on the Aboriginal Water Strategy can be found here [NSW Aboriginal Water Strategy | Water](#).

Information has been provided above on engaging with First Nations people through the establishment of EWAGs and the SAC, review of LTWPs and the Reconnecting River Country Program.

Regional Aboriginal Water Committees are being established to provide advice to DPE Water on reforms in water management in regional areas of NSW. The Committees will discuss the administration of water management policy, projects and programs as they apply to Aboriginal people. Another consideration for the Committees will be the new inland waters target under Closing the Gap. More on the Regional Aboriginal Water Committees can be accessed here [Regional Aboriginal Water Committees \(nsw.gov.au\)](#).

10(b) How does the NSW government address the Priority Reforms under the National Agreement on Closing the Gap in implementing the Basin Plan?

Response:

NSW is committed to developing and meeting the new inland waters target under the National Agreement on Closing the Gap. As detailed in the NSW Government submission to the review, NSW will continue to work with the Coalition of Aboriginal Peak Organisations members to design a delivery plan to support the 2022-2024 Closing the Gap Implementation Plan and to make progress toward achieving the target, consistent with the whole of government governance processes established for Closing the Gap.

The NSW Water Strategy includes a priority to 'Recognise First Nations/Aboriginal People's rights and values and increase access to and ownership of water for cultural and economic purposes.' Actions under this priority, such as the development of an Aboriginal Water Strategy, will contribute to the Priority Reforms of Closing the Gap including Cultural Watering Plans.

Regional Aboriginal Water Committees are being established to provide advice to DPE Water on reforms in water management in regional areas of NSW. The Committees will discuss the administration of water management policy, projects and programs as they apply to Aboriginal people. Another consideration for the Committees will be the new inland waters target under Closing the Gap. More on the Regional Aboriginal Water Committees can be accessed here [Regional Aboriginal Water Committees \(nsw.gov.au\)](#).



10(c) In what way is First Nations' science and knowledge used and valued in water and natural resource management in the Basin in NSW?

Do gaps in the legal frameworks governing the use of Indigenous Cultural and Intellectual Property (ICIP) inhibit partnerships with First Nations people and the sharing of Indigenous knowledges in Basin Plan implementation?

Response:

Cultural Watering Plans are being developed to increase Aboriginal ownership of and access to water for cultural and economic purposes, as directed under the NSW Water Strategy. The plans will inform DPE Water's review of existing policy frameworks to identify opportunities for greater Aboriginal access and ownership of water and provide information to Aboriginal communities to make it easier to navigate the licensing framework to access and use water for cultural purposes.

In February 2023, DPE Water endorsed and adopted the Indigenous Cultural and Intellectual Property (ICIP) Protocol and Principles. The protocol provides a framework to guide behaviour and decision making and the principles guide meaningful engagement. These incorporate both tangible and intangible elements which are the object or material and the knowledge incorporated within it, and the artworks and the iconograph and the cultural practice embedded within it. The ICIP Protocol and Principles ensure Indigenous knowledges can inform Basin Plan implementation in a culturally safe way. DPE Water is rolling out a staged approach to build staff capability to work with ICIP and incorporate this knowledge in free prior and informed consent with Aboriginal people in consultation on ongoing Basin Plan implementation.

10(d) How does the NSW government support First Nations organisations to contribute to decision making in the Basin?

Response:

This has been covered above in response to other questions.

10(e) How are outcomes measured in relation to engagement with First Nations people?

Response:

In delivering the actions outlined in Priority 2 of the NSW Water Strategy, NSW will engage with First Nations people and organisations, and will apply the processes developed in the Pathway to Cultural Flows in Australia, Cultural Flows - A guide for First Nations and Cultural Flows - A guide for Water Managers. This approach has three stages: (1) to identify cultural values and set cultural flow objectives, (2) to develop a cultural flow management plan, and (3) to implement, monitor and review cultural outcomes.

The guide can be viewed here [Water Managers Guide.pdf \(culturalflows.com.au\)](https://culturalflows.com.au/WaterManagersGuide.pdf).



10(f) What actions has the NSW government taken to increase First Nations' water rights and access? For any relevant programs:

- What was the objective?
- What form did the action take (co-management, water entitlements, funding an investment vehicle etc)
- What worked, and what did not?
- What lessons can be learnt?

Response:

Initiatives under the NSW Aboriginal Water Program have removed barriers to increase First Nations/Aboriginal peoples' access to and ownership of water for cultural and economic purposes, for example setting prices for cultural access licences to nil during the 2021-2025 pricing period.

Other information and actions have been detailed in the NSW Government submission to the review and in response to other questions above.

Information request 11: Helping communities adjust

11 Since 2018, has the NSW government changed how it assists Basin communities adjust to reduced water availability? Are new approaches needed, and if so, what should they look like?

Response:

The NSW Water Strategy was published in 2021 and Priority 4 of the NSW Water Strategy is to increase resilience to changes in water availability. The NSW Water Strategy is supported by two metropolitan and 12 regional water strategies that consider changing patterns in water availability and demands.

Progress on the NSW Water Strategy is provided in Annual Reports on Implementation prepared by DPE Water which can be accessed here: [NSW Water Strategy – Annual Progress Report on Implementation](#). The 2022 annual report noted progress on creating more resilient communities, by making the following progress on key actions:

- The Office of the Chief Scientist and Engineer has convened a NSW Government Climate Community of Practice for water practitioners to share methods, knowledge and resources to improve environmental, economic and social outcomes. Working groups to further target water modelling and climate change will be established.
- DPE Water has published Water Allocation Guides on how the water allocation process works in each of the major regulated river valleys to help inform communities. [Resource assessment process - Water in New South Wales \(nsw.gov.au\)](#).
- Published summaries that explain how the drought was managed in each valley, the lessons learnt and next steps.
- Community consultation



Work is continuing on relevant RWS to consult on options for how new climate information can inform allocation decisions. This will help stakeholders better understand the risks to develop appropriate mitigation strategies and to prepare for a possible future with less water.

Information request 12: Community engagement

12(a) What actions have been taken by the NSW government since 2018 to improve engagement with Basin communities and First Nations people and incorporate feedback into decision-making?

Response:

DPE Water continues to make significant inroads to provide greater transparency and increased opportunities for inclusion in consultation and engagement activities, particularly for Murray-Darling Basin communities. Improvements since 2021 include:

- Implementation of the Water Stakeholder Engagement Continuous Improvement Action Plan.
- Development of a [water management 101 factsheet](#) series to explain water management fundamentals to complement general awareness videos.
- Completed research project to build information about people we engage with to help inform communication strategies. These will guide engagement teams when seeking to engage with NSW communities. The project included a survey of 2,557 NSW residents to understand their values, attitudes and behaviours around different topics, where they obtain information and their preferred communication method.
- Establishment of the Water Engagement Roundup as a monthly webinar designed to provide an opportunity for any interested parties to become informed about engagement activities underway.
- Development of DPE-wide engagement toolkit and charter, designed to guide engagement staff through the essential stages of planning, delivering and evaluating engagement. The toolkit references The International Association of Public Participation (IAP2) principles, which are considered universal best practice.
- Launch of the Open Data Framework and supporting procedures manual, supporting our commitments to transparency in the NSW Water Strategy.
- Publication of the external review of the implementation of the [Water Stakeholder Engagement Policy](#). This now forms part of a two yearly recurring independent external audit program designed to review the implementation of the policy commitments.
- Development of substantial plans of engagement in key NSW policy programs.
- Establishment of a dedicated First Nations Engagement team reflecting the importance of appropriate, timely and coordinated consultation and a commitment to increasing participation in engagement from First Nations communities and improving engagement and consultation with First Nations peoples across the Murray–Darling Basin catchments.
- Establishment of Regional Aboriginal Water Committees to improve water management in NSW by giving greater recognition to Aboriginal water rights and interests, ensuring Aboriginal people can contribute to water management.



Other actions by DPE water and DPE EHG have been detailed in this response.

12(b) How could community engagement be further improved and consistently practiced in Basin Plan implementation?

Response:

We refer you to the NSW Government submission to the Review - 'Community consultation and engagement'.

12(c) How has the NSW government been engaging with communities downstream of valleys where floodplain harvesting licensing has been implemented to understand their concerns and communicate how floodplain harvesting will operate?

The community was consulted on proposed changes to the Floodplain Harvesting Policy in 2018. Feedback from a formal submission process were incorporated in the final changes.

Community consultation has occurred each year since 2020 to receive feedback from the community, and to ensure landholders understand how floodplain harvesting will operate. Consultation has occurred in the form of public webinars, targeted meetings, face to face meetings and workshops. More details on floodplain harvesting consultation, including stakeholder feedback, can be found on the website [Outcomes from consultation - Water in New South Wales \(nsw.gov.au\)](https://www.nsw.gov.au/outcomes-from-consultation-water-in-new-south-wales).

The DPE Water website also includes communications on floodplain harvesting, including a suite of factsheets, infographics, reports and videos [NSW Floodplain Harvesting Policy - Water in New South Wales](https://www.nsw.gov.au/nsw-floodplain-harvesting-policy-water-in-new-south-wales).