

Department of Climate Change, Energy, the Environment and Water

NSW Government Submission to the Basin Plan Review 2026

May 2026



Acknowledgement of Country



Department of Climate Change, Energy, the Environment and Water acknowledges the traditional custodians of the land and pays respect to Elders past, present and future.

We recognise Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to society.

Artist and designer Nikita Ridgeway from Aboriginal design agency – Boss Lady Creative Designs, created the People and Community symbol.

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Introduction

This Submission is made by the NSW Government in response to the Murray-Darling Basin Authority's Basin Plan Review Discussion Paper.

NSW supports implementation of the Basin Plan and we have done a lot of the heavy lifting for implementation

NSW remains firmly committed to delivering the Murray-Darling Basin Plan and ensuring a healthy, resilient river system that supports communities, industry and the environment.

Since the Basin Plan has come into effect, NSW has made substantial progress in delivering on our Basin Plan commitments. We have played a major role in water recovery under the Basin Plan and contributed significantly to Basin-wide progress, helping bring total recovery within 16 GL of the Basin's full Bridging the Gap target.

The NSW Government recognises the important benefits that the Basin Plan has delivered, however it is important that we also recognise its shortfalls and failures.

It is time for a new approach to Basin water management, focusing on genuine environmental outcomes, supporting communities and businesses, and that delivers for Aboriginal Peoples. We need a Basin Plan that unites rather than divides communities.

A long term, nationally led plan requires long term, sustainable investment in programs that make a difference, if the plan is to be successful.



NSW's Basin Plan implementation extends well beyond water recovery with investment in planning, monitoring, governance, environmental watering, infrastructure, and policy and regulatory reforms that collectively support Basin Plan outcomes. Key actions include:

- Delivering targeted environmental watering actions to sustain flows, improve vegetation health, protect and recover native fish and support waterbird breeding and dispersal
- Implementing all 20 of our water resource plans, demonstrating strong progress and commitment to sustainable water management, while prioritising and progressing the accreditation of our remaining plans with dedicated effort and momentum

- Strengthening regulatory and compliance frameworks to ensure that we meet our sustainable diversion limit obligations and prevent the misuse of water
- Imposing metering requirements for licensed water take on a risk-based approach
- Establishing a comprehensive licensing and measurement framework for floodplain harvesting across multiple northern Basin valleys to ensure historically unregulated water take is brought within the Basin Plan framework
- Advancing supply, constraints and efficiency measure projects through the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) Program and the Resilient Rivers Water Infrastructure Program and Northern Basin Toolkit projects
- Enhancing monitoring methods and programs and publishing regular ecological outcome reports
- Engaging in national governance, legislation, and funding processes to support coordinated delivery of environmental water, reform development and implementation, including of active management to protect environmental water as it moves through the system, and the shared commitment to delivering the Basin Plan in full
- Developing long-term and annual environmental water plans to support Basin-wide environmental outcomes.

We have worked in partnership with Aboriginal communities, local stakeholders and other Basin states to deliver these actions and we will continue to identify opportunities to improve implementation, deliver water more effectively, and ensure the long-term sustainability of the Murray–Darling system for the communities and ecosystems that depend on it.

The impacts to regional communities of Commonwealth water reform must be better recognised

Water reform in the Murray-Darling Basin has brought significant environmental gains. This has however also created real and uneven economic impacts for regional communities, especially those that rely heavily on irrigated agriculture and water for their local economies. Communities in irrigation-dependent areas have experienced shifts in water availability, higher water prices, and changes in production which have contributed in some towns to changes in employment, business activity and population stability.

These communities play a vital role in sustaining the Basin’s food systems, economies and cultural landscapes and their lived experience is essential for practical and effective water management. It is therefore important that alongside the prioritisation of environmental needs in water sharing, the social and economic impacts of water reforms and policy decisions on communities and industry is recognised and considered into the future as new policy direction is contemplated and decisions are made.

These socio-economic assessments should pay greater focus at the local government scale and assess the cumulative impacts of water reform and water policy decisions. This will support a proper and thorough assessment of impacts on regional communities which is required as part of informed and balanced water management and planning as well as decision-making.



This review is an important opportunity to make improvements and set the direction of future management of the Murray-Darling Basin

The plan has delivered good outcomes, but a new approach is required if it is to continue delivering.

In NSW, the future direction of water management is set through our NSW Water Strategies Program. The 3 statewide strategies (NSW Water Strategy, NSW Aboriginal Water Strategy, and NSW Groundwater Strategy) and 12 regional water strategies address key challenges and opportunities for water management and service delivery, including across the Murray-Darling Basin. They set the strategic direction for the water sector, consider long-term climate variability and change, and articulate how the Basin Plan and statewide, regional, metropolitan and local strategic water policy and planning frameworks work together. The positions taken in this Submission align with priorities and actions under NSW Government water strategies.

The Basin Plan has delivered significant water reforms that support environmental health across the Murray-Darling Basin. As we move into the next phase, there is a need to maximise the benefits of existing investments and partnerships to address emerging challenges such as climate change, population growth and water security, while strengthening community certainty, cultural outcomes and environmental gains.

The Basin Plan Review recognises that the Basin was originally shaped by crisis—specifically the Millennium Drought—and now must adapt to a future of hotter, drier conditions and more extreme droughts and floods.

NSW is already experiencing widespread drought conditions, with forecasts strongly indicating further expansion and intensification over the coming months. Drought places heavy pressure on regional communities by reducing farm productivity, increasing costs, and weakening local

economies, which flow into social impacts. Environmentally, drought reduces water availability, degrades ecosystems, and increases bushfire risk, creating long-term pressures on both landscapes and the communities that rely on them. The NSW Government has made clear that it will stand alongside regional communities before, during and after drought, ensuring support is coordinated, consistent and accessible.

The 2026 Basin Plan Review is a key opportunity to ensure that water management across the Murray–Darling Basin remains effective, robust and community-centred in a changed and changing climate. It can build on current successes, identify where policy settings need adjusting and improve efficiency, effectiveness and ecological outcomes. It can also embed resilience into the system itself — making water planning more efficient, responsive and capable of protecting regional livelihoods during prolonged drought to ensure that communities are not left to face water scarcity alone.

When rescoping the next iteration of the Basin Plan, it will be important that stakeholder expectations are managed to ensure everyone is collectively on the same page of what needs to happen next, how it needs to happen and when results may actually become apparent.

By incorporating the latest science, monitoring, climate evidence, cultural knowledge and community experience, the Basin Plan Review can create a more adaptive, flexible and evidence-based Basin Plan for the decade ahead. It also allows the Basin Plan to broaden its focus beyond water recovery to include complementary measures including catchment management, improved river operations, localised management and better integration of environmental infrastructure — supporting long-term resilience for rivers, floodplains, groundwater systems and communities.

NSW does not support water buybacks and continues to encourage prioritisation of investment in projects, programs and infrastructure that deliver environmental outcomes

Environmental outcomes cannot be delivered with water recovery alone. The NSW Government does not support water buybacks to meet Basin Plan water recovery targets because of their economic and social impacts on regional NSW communities, and there is significant potential to make better use of the existing portfolio of environmental water. The Australian Government should instead prioritise investment in infrastructure, water efficiency projects and rules-based and system scale projects as these provide environmental outcomes while also protecting jobs, irrigation industries, and regional economies.

NSW considers that further water recovery alone will not deliver the environmental outcomes the Basin Plan is seeking. There are opportunities to use the water already recovered more effectively, supported by complementary measures, constraints relaxation, improved river system operations, a fit-for-purpose delivery framework and legislation that supports efforts to coordinate environmental

water. When delivered, these improvements would contribute to addressing ecological stressors, significantly increase the environmental benefits of water already held and optimise outcomes that water alone cannot resolve.

Funding is an overarching and important consideration when developing recommendations

It's important that the Authority's recommendations consider funding because without clear, realistic resourcing, even the strongest proposals cannot be implemented effectively. Funding ensures recommendations are feasible, sustainable over time, and supported by the staffing, infrastructure and community engagement needed to deliver real outcomes. It also prevents new responsibilities from becoming unfunded burdens on states, agencies or regional communities, helping to maintain trust and ensure that reforms translate into genuine improvements on the ground.

Challenges such as climate change adaptation, reduced river connectivity, fragmented management of land, water and ecosystems, ageing or not fit-for-purpose infrastructure and constraints on delivering water to sustain floodplains and wetlands all require substantial investment to ensure the Basin Plan can operate efficiently and effectively into the future and builds on the investments made and outcomes achieved to date.

Lessons from current Basin Plan implementation — including the delivery of SDLAM projects — demonstrate that without timely funding provision and certainty and a commitment to sustained funding for projects rather than short-term funding cycles that require renewal, progress is slower, community impacts are greater, and opportunities for environmental improvement are constrained. Through the Northern Basin Toolkit, funding was not aligned with specific outcomes sought, which has led to a mismatch of stakeholder expectations of project outcomes and what can actually be delivered with the funding available. This undermines stakeholder confidence in our commitment and capability to deliver these complex projects. It is important that Basin Plan policy decisions align with funding arrangements.

Investing in monitoring, evaluation and reporting, along with science and knowledge, strengthens the evidence base for policy, improves our ability to develop meaningful targets to help improve environmental and economic outcomes, and enables more informed, innovative decision-making.

Reliable data, research and monitoring are essential for effective water management and for building transparency and trust with communities. However, limited and uncertain funding undermines these benefits by disrupting research and monitoring programs, weakening expertise and slowing the development of critical tools for reform. Sustained investment is needed.

The future Basin Plan vision must include healthy groundwater systems and groundwater dependent ecosystems

A future Basin Plan vision must explicitly recognise the critical role of healthy groundwater systems and groundwater-dependent ecosystems in sustaining the Murray–Darling Basin’s environmental, cultural and community values, and not just around connection to surface water.

When considering connectivity between groundwater and surface water, the Basin Plan lacks recognition of the 2-way water connection between groundwater systems and rivers. Some groundwater systems not only provide essential baseflows that support rivers, wetlands, springs and culturally significant sites, particularly during dry periods, but rivers also support the recharge of groundwater systems.

Incorporating groundwater explicitly into the Basin Plan vision and recognising that rivers recharge groundwater systems will ensure the next Plan includes robust metrics, improved integrated modelling, and adaptive management frameworks capable of responding to climate pressures, protecting vulnerable ecosystems, and safeguarding this vital and often overlooked water source for future generations.

Concluding remarks

Attachment A details a summary of the NSW Government’s position on the options presented in the Discussion Paper, with the below content focused on the following 10 recommendations:

- Recommendation 1: Water resource planning and accreditation requires streamlining and simplification
- Recommendation 2: Improvements are required to the initial sustainable diversion limit assessments in collaboration with Basin governments
- Recommendation 3: Significant whole-of-government interventions and funding are needed to improve water quality
- Recommendation 4: Improvements are needed to advance First Nations water management objectives and outcomes
- Recommendation 5: Improvements are required to river connectivity including through protecting flows at critical times
- Recommendation 6: A pathway is urgently needed to ensure constraints projects can be delivered post December 2026
- Recommendation 7: A works and measures program is needed to improve fish health, habitat and facilitate life cycle processes
- Recommendation 8: States must retain control of critical human water needs decisions within a changing climate context
- Recommendation 9: Environmental water delivery should be maximised and appropriate and proportionate protections for planned environmental water are required

- Recommendation 10: Improvements to regulatory design will enhance efficiency and effectiveness.

We thank the Authority for the opportunity to input into the 2026 Basin Plan Review and we look forward to continuing our engagement with the Authority on this important piece of work.



Source: NSW DCCEW and NSW Department of Primary Industries and Regional Development's websites

Recommendation 1: Water resource planning and accreditation requires streamlining and simplification

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to 'Chapter 10 Basin Plan Regulatory Design' (sections 10.1, 10.2 and 10.3) of the Basin Plan Review Discussion Paper which focuses on the issues relating to water resource planning.

Water resource planning disproportionately affects NSW compared with other Basin states collectively, with NSW responsible for 20 of the 33 water resource plan areas.

Out of NSW's 20 water resource plans, 15 plans are fully accredited. Accreditation of 4 plans are progressing through an agreed pathway to meet Indigenous values and uses requirements, and one plan is awaiting re-accreditation by the Australian Government following a recent court judgement.

Water resource plans have imposed high administrative cost burden with limited value to delivering on Basin outcomes

In NSW alone, many millions of dollars have been provided by the Australian Government to NSW under the National Partnership Agreement on Implementing Water Reform in the Murray-Darling Basin to develop water resource plans. No additional funds from the Australian Government have been provided for water resource planning despite ongoing work by NSW to deliver, implement and report on these plans, resulting in the expenditure of significant amounts of NSW funds and the significant and ongoing diversion of staff away from other NSW work and priorities.

Water planning in NSW is implemented through statutory water sharing plans, established under the *Water Management Act 2000*. These plans allocate water, protect environmental flows, set rules for water users, and guide day-to-day water management. They are developed through legislated processes which include public consultation requirements and are subject to significant scrutiny with regular independent reviews and audits to ensure ongoing delivery and effectiveness. Water sharing plans predate the development of the *Basin Plan 2012*.

Because of this, most water resource plan provisions have had little impact on NSW water management as we already had controls in place through our statutory water sharing plans that satisfied most water resource plan requirements.

The exception to this is a few requirements, such as new sustainable diversion limits (SDLs) for surface water and a few groundwater areas where more stringent limits were set, strengthened recognition of accounting for critical human water needs, some additional monitoring requirements and the added no net reduction of planned environmental water and Aboriginal cultural outcomes.

While these are important gains, the administrative framework to deliver these benefits is disproportionately burdensome.

Through implementing the Basin Plan, NSW has also made significant improvements in protecting environmental water as it moves through the system under prerequisite policy measures in the Murray and Murrumbidgee valleys and active management procedures in the unregulated Barwon-Darling, Gwydir and Macquarie-Bogan water sources.

These additional Basin Plan requirements (SDLs etc) are implemented through NSW water sharing plans, not water resource plans. A more efficient and effective water resource plan framework is required so efforts are not duplicated and compounded by having to audit 2 instruments with the same content.

Whilst the Inspector-General of Water Compliance has been unable to formally enforce SDLs in NSW during periods where there has been no water resource plan in place, it is important to note that NSW has had in place effective accountability mechanisms as described below:

- Water sharing plan regulatory requirements apply across the Basin and are enforceable even if water resource plans are not finalised.
- Where water resource plans are not in force because they have not been accredited, NSW operates under an interim bilateral agreement with the Authority which enables NSW to report against SDLs. Where this assessment has indicated non-compliance, NSW implemented agreed 'make good actions'.
- NSW has taken growth in use actions where water take has breached NSW legal limits on water take, despite not triggering any actions under the Basin Plan's SDLs. This denotes that in some cases there is greater existing protection against unsustainable water take from NSW plans comparative to what the Basin Plan requires.

NSW supports limiting the requirements of an accredited water resource plan instrument

NSW supports the Authority's proposal to refine the focus of water resource plans to those core areas that matter most. Table 1 below outlines the Authority's proposed core water resource plan requirements and NSW's response.

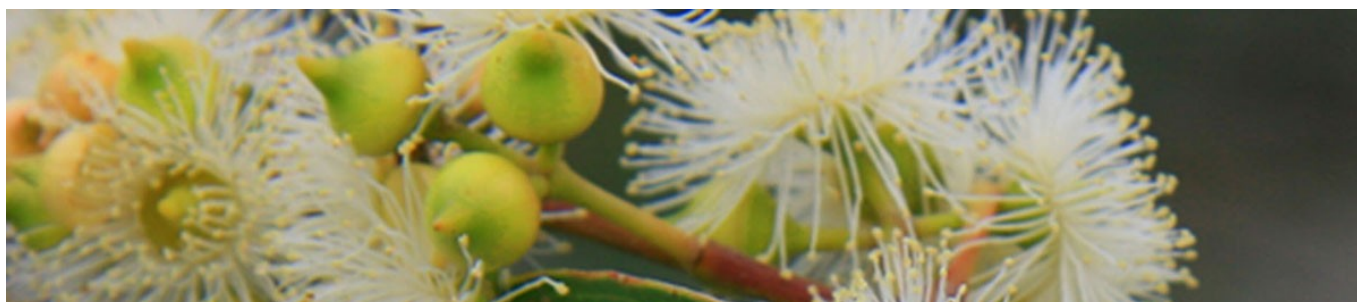


Table 1 The Authority's proposed core water resource plan requirements and NSW comments

Authority proposed core water resource plan requirement	NSW proposed core water resource plan requirement	NSW position on the Authority proposal and explanation
Ensuring SDL compliance	No change	Supported.
Ensuring no net reduction in the protection of planned environmental water	No change	Supported. NSW retains support for assessments of no net reduction to be tied against arrangements that were in place as at 22 November 2012**note below.
Protecting held environmental water as it moves through the system	No change	Supported where full cost recovery is funded by the Australian Government. NSW supports protection of held environmental water through systems. To implement this effectively and on an ongoing basis, significant regulatory reform and substantial resources are required. NSW is already protecting environmental water through the system. Anything above and beyond existing NSW protections would need to be fully funded by the Australian Government which includes both development and ongoing implementation costs.
Addressing risks from groundwater extraction	Adopting a risk-based approach to groundwater management that focus interventions on managing local impacts	Supported with alternate wording that focus on local impact management. It is unclear what is included in the Authority's description. NSW takes a risk-based approach to groundwater management focusing effort where the impacts and pressures are greatest which is what should be reflected in the Basin Plan.
Requiring genuine engagement with First Nations peoples in water resource planning and implementation, underpinned by free, prior and informed consent	Provide evidence of genuine opportunities for First Nations to participate in water management underpinned by free, prior and informed consent	Supported with alternate wording. The revised wording focuses on outcomes, better defines the expectations that need to be met from Basin states and acknowledges that Aboriginal involvement is self-determined. It also directly addresses current NSW water resource plan accreditation issues.
Aligning the development of WRPs with the First Nations purpose of the Basin Plan	No change	Supported.

Authority proposed core water resource plan requirement	NSW proposed core water resource plan requirement	NSW position on the Authority proposal and explanation
Prioritising river connectivity between planning areas, including across borders, at crucial times	Prioritise cross jurisdictional border connectivity post drought for critical human water needs and water for the environment above commercial take provided origin Basin states critical human water needs have been met and levers to affect this change are within the Basin state remit and control.	Supported with alternate wording. The Authority's wording is too broad and infringes on Basin states' responsibility to ensure connectivity between planning areas. NSW is already committed to improving connectivity within NSW to protect downstream critical needs and achieve improved environmental outcomes and does not see a role for the Basin Plan in how this is implemented. The revised wording more clearly specifies when cross-border requirements should be met, which is within the remit of the Basin Plan to coordinate Basin states.
Ensuring critical human water needs are clearly identified, prioritised and underpinned by robust assessments.	No change.	Supported where the intent and remit of this requirement is clearly defined to remain within the Basin Plan's powers. NSW legislation already prioritises critical human water needs and replicates the definition for critical human water needs which is in the <i>Commonwealth Water Act 2007</i>. While NSW is supportive of this requirement, the Authority should allow Basin states flexibility in how they achieve this. NSW reiterates that any decision-making regarding changes to how water is managed that solely affects NSW should remain within the full autonomy of NSW (refer to Recommendation 8 below relating to critical human water needs).

****Definition of planned environmental water**

There has been recent confusion from some stakeholders about the definition of planned environmental water. For clarity, planned environmental water is defined in NSW legislation as water set aside for the environment through NSW rules such as transparency and translucency flows, water below cease to pump levels, environmental water allowances, water quality allowances, proportions of events that are prevented from take like supplementary access rules as well as water above the long-term annual extraction limit or sustainable diversion limit (under section 8(1)(a) of the *Water Management Act 2000*). In NSW, since most of the water sharing plan rules for planned environmental water predate the commencement of the Basin Plan 2012, this water must be protected under the 'no net reduction of planned environmental water' specified under the Plan.

NSW proposes additional water resource plan requirements to strengthen water management

NSW also recommends the following additional core water resource planning requirements:

1. **Current protections of Indigenous values and Indigenous uses** – The existing water resource plan requirement to retain at least the same level of protection of Indigenous values and Indigenous uses (s10.55 of the *Basin Plan 2012*) should be retained with the level of protection linked to the date that amendments to the Basin Plan arising from the Basin Plan Review commence. This new date will ensure that the provisions are contemporary and any advances on the level of protection are retained.
2. **Measuring/metering water take** – This means impose obligations on Basin states to meter and measure water take with the allowance that Basin states can adopt a risk-based approach to meet this requirement.
3. **Interventions and measures to mitigate water quality issues** – This means retain existing Basin Plan rules to include measures to meet water quality objectives, where practical and cost-effective to do so and including land management measures (s10.33 of the *Basin Plan 2012*).

Water quality management plans have demonstrated little value as a water resource plan requirement

NSW agrees with the Authority that Water Quality Management Plans should not form part of the core water resource plan requirements that need to be updated every 10 years. However, as stated above, NSW recommends that the existing requirements under section 10.33 of the *Basin Plan 2012* to include measures and interventions to mitigate water quality issues (where practical and cost-effective to do so) continue to be a core water resource plan requirement.

The NSW Government is currently developing governance options for improving the integration of land and water management to improve water quality and waterway health across NSW. This intends to ensure that the highest priority land and water interventions can be identified and implemented in a coordinated way. These state-based governance arrangements will advance achievement of water quality interventions and measures in a coordinated whole-of-government approach.

In line with the NSW proposal for meeting water resource plan requirements, NSW would like to see outcomes-focused requirements in the next iteration of the Basin Plan that allow for Basin states to demonstrate compliance through state-based instruments and policy documents. This would provide for greater commitment, enforceability and transparency of water quality rules compared with the current approach which is focused on Water Quality Management Plans that are time consuming to develop and are more of a narrative describing drivers for water quality issues rather than a call to action for how these issues will be resolved.

NSW state-based instruments such as water sharing plans should be used to satisfy water resource planning requirements

Of the two options presented in the Discussion Paper, NSW strongly supports Option 2 with some recommended improvements. NSW recommends applying best practice regulatory design to afford Basin states flexibility to comply with core water resource plan requirements in an impactful and efficient manner to suit their existing frameworks. For NSW, this means that rather than duplicating rules and paperwork, compliance with Basin Plan obligations is achieved through existing state-based instruments such as water sharing plans, either in part or whole, and through policy documents where gaps exist.

NSW recognises the importance of maintaining credibility, transparency and accountability of the water resource planning process. We are of the view that Option 2 does not diminish these responsibilities as compliance will still be overseen by the Inspector-General of Water Compliance.

An alternative streamlined accreditation approach associated with Option 2 is recommended

The Authority's threshold for the burden of proof required by Basin States when considering whether the requirements of water resource plans have been met is unclear and has consequently been applied very conservatively and inconsistently over time. NSW and the Authority have spent considerable resources and time in requesting and providing additional information to satisfy ambiguous requirements.

NSW supports standardised assurance reporting rather than detailed water resource plan accreditation, provided it does not place unnecessary cost or resourcing burdens on states. Assurance reporting should only be required when new water resource plan requirements commence or when the way a requirement is being met changes. This would maintain the intent that this option is less prescriptive and delivers efficient and effective outcomes that do not duplicate state efforts.

With regards to Basin State reporting requirements, NSW recommends that existing state instruments and material should be used rather than having Basin states reconfigure existing information to meet a reporting requirement when the Basin Plan obligation has already been met in substance.

Additionally, application of 'materiality' should also be applied to Basin Plan requirements in relation to water resource planning. For example, the existing NSW surface water resource plans include statements in relation to trade within and between groundwater SDL resource units. This is immaterial to how surface water is managed.

Aboriginal engagement requirements need to be more practical to facilitate long-term engagement and change

NSW is committed to strengthening Aboriginal cultural values, outcomes and objectives in water management planning. Genuine collaborative partnerships between Aboriginal people and governments require sustained time, energy and resources to ensure relationships are built on trust, respect, genuine two-way learning and shared decision-making rather than transactional consultation.

NSW is working closely with Aboriginal communities - listening to their needs, incorporating their feedback into our water resource plans and ensuring water management balances the needs of people, culture, industry and the environment while meeting Basin Plan objectives.

The Basin Plan must recognise that meaningful partnerships with Aboriginal communities take time, trust, sustained engagement and opportunities for genuine involvement and capacity building. It should enable Basin states to undertake this long-term work, rather than create expectations for outcomes that can only be realised through ongoing collaboration.

Previously, the Authority applied an interpretation of the Basin Plan that required Aboriginal representatives to endorse the cultural elements within water resource plans before determining whether a Basin state met its cultural obligations. This level of concurrence from all Aboriginal representatives may take years to achieve as one group cannot represent the views of another group. Additionally, it does not allow a Nation to opt out of participating in the process, which is an option consistent with the principles of free, prior and informed consent.

NSW has approached its development of water resource plans in good faith, investing considerable effort to identify appropriate cultural objectives and outcomes for each water resource plan, however, the complexity of this task has made it particularly challenging. Examples include:

- identifying the stakeholders with appropriate cultural Authority to endorse the inclusion of information,
- time constraints that affect the ability to undertake comprehensive engagement with all Aboriginal communities and clans,
- reconciling culturally appropriate consensus decision making with the more Western expectation of hierarchical decision-making,
- reconciling Aboriginal views with other water user viewpoints,
- insufficient resourcing for Aboriginal Nations to participate fully,
- co-designing realistic objectives and outcomes that can be met with the water available for cultural purposes.

Four NSW water resource plans (Gwydir Alluvium, Namoi Alluvium, Gwydir surface water and Namoi surface water) have not been accredited by the Australian Government on the basis that NSW has not met the Basin Plan's requirements for culturally appropriate consultation and inclusion of Aboriginal objectives and outcomes, as set out in Chapter 10, Part 14 of the Basin Plan.

Following consultation in these water resource plan areas in 2018 and 2019 (which has been acknowledged by the Authority and the Inspector-General of Water Compliance), permission to use key cultural consideration reports was withdrawn following original submission of these plans for accreditation. This resulted in the plans being withdrawn and requiring re-submission. NSW is continuing to re-engage and rebuild the cultural evidence base needed for water resource plan accreditation.

Whilst NSW remains supportive of genuine engagement with First Nations people, the process must be sufficiently flexible. NSW recommends that water resource plan consultation requirements be met by Basin states providing evidence of providing genuine opportunities for Aboriginal representatives to participate in water management underpinned by free, prior and informed consent. Aboriginal peoples having the option not to participate in water resource planning is also consistent with the internationally recognised best practice principle of free, prior and informed consent (as included in the United Nations Declaration on the Rights of Indigenous Peoples).



Source: NSW Aboriginal Water Strategy

Recommendation 2: Improvements are required to the initial SDL assessments in collaboration with Basin governments

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to 'Chapter 3 An initial assessment of sustainable diversion limits' of the Basin Plan Review Discussion Paper.

The Authority has undertaken initial SDL assessments of the surface water and groundwater SDLs across the Basin (109 across the Basin). NSW has 10 surface water and 44 groundwater areas where initial assessments have been undertaken.

Surface water SDL assessments

Significant improvements can be made to the SDL assessment methodology

NSW has raised several issues with the Authority's methodology and approach during the development of the initial SDL assessments. These include:

1. Environmental condition scores have been aggregated in a way that does not accurately reflect the condition of a river across different spatial scales as they were averaged across catchments and species/ecological communities. For example, a poor river reach combined with a good river reach have been averaged to report an overall moderate condition score. Reporting of some populations (for example, fish and waterbirds) was also missing nuance in condition scoring where some populations were doing well but other populations were doing poorly within the same river reach.
2. Analysis of the condition scores was based on the last 4 wet years rather than the 10-year Basin Plan period which skews the results toward positive outcomes.
3. The hydrological models underpinning the assessment of Basin Plan implementation and climate change outcomes were targeted towards 2-3 environmental water requirements for the entire resource unit. In some instances, this resulted in modelled environmental flow delivery which was different from how flows are delivered on the ground.
4. Climate change analysis is based on the historical climate record and does not use stochastic or paleoclimate data⁴, which would provide an improved understanding of the range of climate variability. Inclusion of this understanding of variability was recommended by the Independent Hydroclimate Science Expert Panel in their Long-term Guidance for Assessing Hydroclimate Risks to Murray-Darling Basin Plan Outcomes.

5. The SDL assessment method considered the Sustainable Rivers Audit data that inappropriately calculated environmental water requirements success, sustainable yields (of which only the climate assessment, and not the hydrological modelling, was available at the time), and expert feedback on monitoring condition. It is unclear how these different data sources were reconciled and weighted in the SDL assessment.
6. Parts of the SDL assessment used hydrological modelling that was identified by NSW as flawed due to the way in which environmental demands affected outcomes in some valleys.

NSW recommends that the final SDL assessments can be improved by making explicit reference to species or parts of surface water catchments where certain ecological themes are at risk or not being met.

^Note. Paleoclimate data refers to natural records of climate variability found in sources such as tree rings, cave deposits (speleothems) and corals. We know enough about the relationship between our climate and the patterns in these sources to reconstruct a record of what our climate was like before instrumental records began. This extends our climate record to more than 500 years.

Preliminary analysis for identified ‘at-risk’ SDL surface water units

The Authority has identified through their initial SDL assessments, that there are 5 NSW surface water SDL units where SDLs may not support Basin Plan environmental outcomes or are ‘at-risk’ under a fully implemented Basin Plan. These are the Barwon-Darling, Lower Darling, Gwydir, Murrumbidgee and NSW Murray. Comments on the information provided in the Discussion Paper for each of these units is contained in Table 2 below to assist the Authority in finalising their SDL assessments.



Table 2 NSW responses to the Authority's initial SDL assessments targeting 'at-risk' SDL units

SDL surface water unit	NSW identification of areas that need further refinement and greater analysis from the Authority	NSW comments on additional potential drivers of risk and poor outcomes that have not been identified by the Authority
Barwon-Darling Watercourse	<i>Authority identified 'at-risk' theme: Ecosystem function and Native fish</i> NSW technical experts agree with this assessment and would further add flows and connectivity and other species as ecological themes that are not supported.	<i>Authority identified drivers of risk: Pattern and flow</i> NSW technical experts agree with the most influential driver, but note the following covered under this broad driver: • reduction in flow volume across all flow patterns (see Northern Basin Connectivity Report) • influence of weirs on native fish and other fauna • upstream connected systems in both NSW and Queensland are drivers of ecological health in this system and connection out of these valleys is critical for both flow volume and water quality.
Lower Darling	<i>Authority identified 'at-risk' theme: Flows and connectivity, Ecosystem function, native fish and waterbirds</i> NSW technical experts agree with these assessments and further add the 'other species' ecological theme as in poor condition or at risk.	<i>Authority identified drivers of risk: Pattern and flow</i> NSW technical experts agree with the primary driver, particularly that there is insufficient water to support ecological outcomes. The recent Darling Baaka River Health Project (DCCEEW, 2025) concluded that the overall river health was poor and the primary driver is 'the alteration of natural flow by water extraction and river regulation'. We further note that water quality issues (ecosystem function) are a major driver of ecological outcomes in this system with consistently high nutrient loads from upstream catchments in the Northern Basin being delivered downstream.

SDL surface water unit	NSW identification of areas that need further refinement and greater analysis from the Authority	NSW comments on additional potential drivers of risk and poor outcomes that have not been identified by the Authority
Gwydir	<i>Authority identified ‘at-risk’ theme: waterbirds</i> NSW technical experts agree with the Authority assessment that waterbirds in the Gwydir are ‘at-risk’. Further the following ecological themes were considered as potentially not supported: Flows and connectivity, native fish and native vegetation.	<i>Authority identified drivers of risk: Pattern of flow due to constraints to the delivery of water to the Gwydir Wetlands, a Ramsar site</i> NSW technical experts agree with the Authority but would add that insufficient lateral connectivity to wetlands and floodplains in general throughout the catchment is a driver of poor outcomes. Also, timing is a major issue, particularly achieving ecologically relevant duration of wetland-inundating flows.
Murrumbidgee	<i>Authority identified ‘at-risk’ theme: Native fish, Flows and connectivity and native vegetation.</i> NSW technical experts partially agree on these, noting that the condition is spatially variable, for example native vegetation is in good condition in the Lowbidgee. Native fish condition is very poor in the upper Murrumbidgee and upstream of large in-stream fish barriers and better in the Lowbidgee. Native vegetation is in poorer condition in the Mid-Murrumbidgee wetlands that cannot be reached with environmental water.	<i>Authority identified drivers of risk: ‘Constraints to flow and fish passage. In the upper Murrumbidgee reach, flows are significantly reduced downstream of the Tantangara storage’</i> NSW technical experts agree with the Authority-identified drivers, noting that the ability to deliver environmental water across the Lowbidgee using infrastructure has enabled very good environmental outcomes. For example, it is one of the very few places in the Murray-Darling Basin where group-nesting waterbird breeding events can be triggered and maintained using only supplementary, environmental water and infrastructure. The same also holds for a small number of Mid-Murrumbidgee wetlands which can be watered using infrastructure.

SDL surface water unit	NSW identification of areas that need further refinement and greater analysis from the Authority	NSW comments on additional potential drivers of risk and poor outcomes that have not been identified by the Authority
NSW Murray	<i>Authority identified ‘at-risk’ theme: Ecosystem Function, Flows and connectivity to floodplain, Native Fish.</i> NSW technical experts agree with these and also rated the following as poor: ecosystem function (water quality issues), waterbirds (abundance in decline), vegetation (particularly woody encroachment into wetlands, trees showing signs of long-term stress and declining conditions outside where environmental water can be delivered) and other species (particularly turtles and crayfish).	<i>Authority identified drivers of risk: Pattern of flow due to the inability to deliver water to floodplains, including the NSW Central Murray Forests Ramsar site.</i> NSW technical experts strongly agree, but would further cite restrictions or inability to deliver flows at ecologically relevant times, a related change in the seasonality of flows, changes to vegetation type and condition (which can impact on habitat availability for waterbirds, native fish and other species) and water quality issues (for example, blackwater events).

NSW will work with the Authority to improve the SDL assessments and options for response

NSW acknowledges that the full ecological outcomes expected by the Basin Plan have not been achieved with the water that has been recovered to date.

NSW recommends all local and regional interventions that could improve ecological outcomes and manage risks should be exhausted before consideration is given to lowering legal limits (decreasing SDLs) and permanently reducing water access for consumptive and business use, which should only be adopted where there are no viable alternatives. NSW remains firm that it does not support water buybacks to meet Basin Plan water recovery targets.

While flow restoration and water for the environment are crucial for the recovery of the Basin’s water-dependent ecosystems, there are other factors in these valleys that are limiting ecological, cultural and social responses to improvements in flows alone. This includes connectivity, water quality issues, water infrastructure that impact native fish, river constraints, lateral connectivity issues, riparian and habitat degradation, invasive species, and the discordant relationship between

river operations and the timing of access to environmental water. Because of these factors, simply adding more water through further water recovery is not the solution and investment in projects, programs and infrastructure that address these issues will be required.

NSW is also undertaking a body of work in response to the Authority's initial SDL assessments to inform additional and more localised management responses. Developing and implementing appropriate management actions in partnership with community across priority themes at site, reach, and Basin scales will maximise the benefits for ecosystems and native fish species to achieve healthy rivers and healthy communities for our future. We look forward to sharing this work with the Authority shortly.

Groundwater SDL assessments

Significant improvements can be made to the SDL assessment methodology

NSW has raised several issues with the Authority's methodology and approach during the development of the initial SDL assessments. These include:

1. Groundwater trend assessment and interpretation rely too strongly on applying a mathematical data method and not sufficiently on combining outcomes and interpretation in the context of area specific knowledge and data.
2. Recharge models are highly conservative. They do not consider all recharge sources, such as in-stream recharge, which in some cases are significant, potentially limiting access to water based unnecessarily on unsuitable criteria. They also do not consider that more saline water reduces the water made available, regardless of risks and industry needs.
3. Recharge methods were prepared at a very large scale and lack specificity leading to conclusions that do not instil sufficient confidence in the results.



Source: NSW Groundwater Strategy

Preliminary analysis for identified 'at-risk' SDL groundwater units

The Authority has identified through their initial SDL assessments, that there are 3 NSW groundwater SDLs that may not support Basin Plan environmental outcomes. These are the Lower Namoi, Upper Namoi and Lower Gwydir.

The groundwater declines in these ‘at-risk’ groundwater sources are highly localised:

- lower Gwydir groundwater declines are mainly concentrated between Moree to Ashley
- upper Namoi groundwater declines are mainly concentrated in management zones 8 and 12
- lower Namoi groundwater declines are mainly concentrated around Wee Waa.

NSW recommends these localised issues necessitate a more nuanced approach to management where all local and regional interventions to manage the risks should be exhausted first before consideration is given to lowering legal limits (decreasing SDLs) and permanently reducing water access for consumptive and business use across the whole water source, which should only be adopted where there are no viable alternatives.

NSW would like to work with the Authority to sharpen the initial SDL assessments to ensure they are accurate, defensible and can be used as a sufficient basis to make policy and management decisions for these groundwater sources. NSW recommends that the Authority invest in the following next steps, underpinned by best practice water management principles, to properly understand the risks and management required for these groundwater systems in consultation with affected water users:

- 1. Refine numerical models and other analytical tools to assess the cause of water declines and identify options to manage these risks.**

As described above, much of the analysis underpinning the groundwater SDL assessments does not focus on the localised nature of the groundwater declines in these ‘at-risk’ water sources. Numerical models are essential to better understand the issue and geographical source of declines so that more targeted management options can be considered to address these risks.

- 2. Consult with stakeholders on options to manage risks.**

Consultation is a critical component of successful water management to better understand the issues and on-ground implications of any proposed management options.

- 3. Support development and implementation of a state-led protocol for managing groundwater declines.**

NSW is committed to robust local management solutions that address the issues identified in the Discussion Paper better than an adjustment of the SDL could.

The state-based protocol would establish a series of escalating groundwater level triggers for bores of the NSW groundwater monitoring network. Each level of escalation would result in defined actions ranging from monitoring alerts to implementing temporary water restriction orders under s324(2) of the *Water Management Act 2000*.

The groundwater level triggers would similarly be used when water levels recover and inform the end of the temporary water restriction orders. This protocol would be developed in consultation with NSW stakeholders ensuring it is fit-for-purpose, robust and provides sufficient transparency and

accountability to underpin decision-making. Temporary water restriction orders are an interim measure which once tried and tested, could be made enduring through water sharing plan amendments.

Financial support of this proposal by the Authority will advance this work in a shorter timeframe and enable demonstration that this approach is fit-for-purpose.



A pathway is required to review and potentially increase the SDLs of selected, low-risk groundwater sources without compromising the long-term health and function of the resources and dependent ecosystems

The Authority has not considered any increase in groundwater SDLs as part of their review. The Authority was highly conservative in setting some SDLs in 2012 in porous and fractured rock groundwater SDL units, setting them well below previous NSW long-term average annual extraction limits with limited evidence to substantiate the difference.

NSW wishes to explore the potential to increase SDLs in selected, low risk groundwater sources where evidence supports an increased sustainable level of take if this would support NSW Government priorities to ensure future demands to transition to net zero can be accommodated while supporting Basin Plan outcomes. This would also support Australian Government ambitions and priorities to transition to net-zero.

The transition to net-zero energy systems includes water needs for solar farms, wind installations, green hydrogen facilities and transmission upgrades with water required for construction, cooling, processing and operation. Managing these emerging water demands requires robust assessment of impacts on groundwater availability.

There is groundwater demand associated with NSW Renewable Energy Zones across the Lachlan Fold Belt MDB, Liverpool Ranges Basalt MDB, New England Fold Belt MDB and the Sydney Basin MDB. There are also additional groundwater SDL units where access to groundwater would further support NSW's ambitions to implement the Net Zero Plan and secure vital town water supplies.

The Authority's initial SDL assessments identified no or low risk groundwater sources even considering extreme hotter and drier future scenarios suggesting that SDLs could be set well below a sustainable level of take and compromising regional adaptation to climate change, water security for towns and changing land uses. NSW offers to work with the Authority to identify what information and controls are required to support raising SDLs in selected resource units.



Consultation process issues

NSW has offered the Authority robust scientific evidence and detailed local knowledge, including through our five-yearly Matter 8 reporting, to inform the initial SDL assessments. While some of this information was considered, not all elements appear to have been fully considered and reflected in the published initial assessments.

The timing of engagement with NSW was a contributing factor to this. Because consultation occurred after the key analytical and framework had already been set, there was limited scope to influence the work. The short deadlines for comment similarly did not allow the depth of review and attention we would have preferred.

These issues were consistent across both surface water and groundwater SDL assessments.

Recommendation 3: Significant whole-of-government interventions and funding are needed to improve water quality

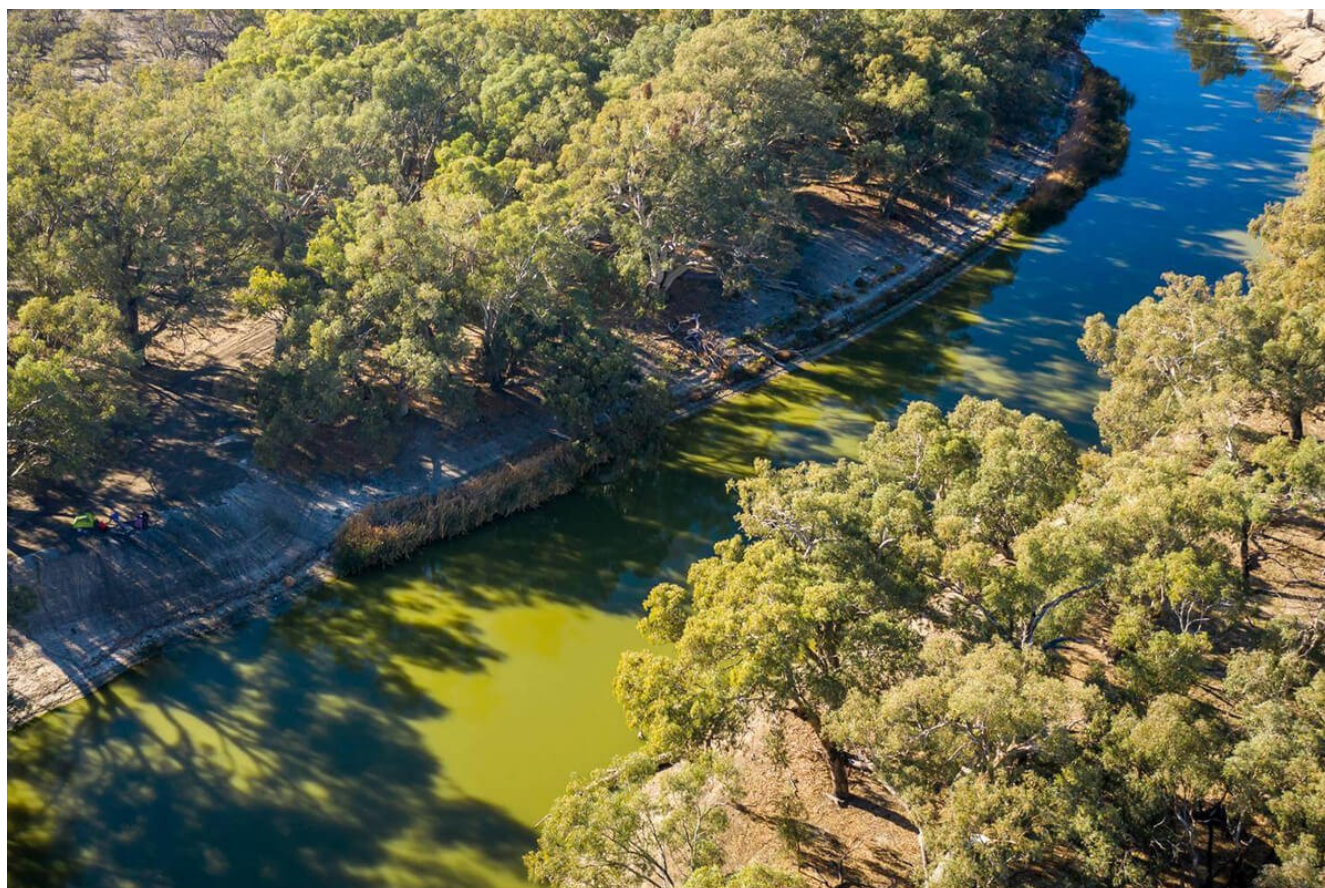
Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to ‘Chapter 8 Managing water quality’, ‘Chapter 3 An initial assessment of sustainable diversion limits’ and ‘Chapter 4 Maximising environmental water’ (sections 4.3 and 4.5) of the Basin Plan Review Discussion Paper.

Basin wide water quality outcomes can only be achieved by working together

NSW Basin communities have been escalating the need for governments to better manage water quality issues that are degrading rivers and to a lesser extent groundwater.

The SDL assessments have highlighted numerous catchments that are suffering from poor water quality like Menindee where water quality degradation is one of the leading causes of major fish deaths alongside obstruction of fish passage from physical barriers.



Most of the pollution entering waterways leading to poor water quality can be attributed to land management practices, necessitating an integrated land and water solution (integrated catchment management) to address the root cause of the problem.

Integrated catchment management is a shared responsibility requiring significant, long-term whole-of-government interventions, both at the Commonwealth and state level. This is because integrated catchment management is, by design, a whole-of-system approach. Catchments do not follow jurisdictional boundaries, and the impacts of poor management in one part of the Basin inevitably flow across borders, affecting water quality, river health, communities, industries and cultural values downstream.

In NSW, no single agency has the Authority, capacity, and resources for catchment scale planning which results in poor coordination and unclear agency roles, with limited integration between relevant legislative and decision-making frameworks. The NSW Government has already recognised this problem and is on its way to improving governance for water quality as committed to under the NSW Water Quality Governance Roadmap.

Focussing on high impact water quality interventions

NSW is working to address the source of water quality issues through its integrated catchment management program

NSW welcomes and supports the Authority's recognition that land use and management practices have an impact on water quality and that water quality can be improved through integrated catchment management. There is a clear need to unify land and water management initiatives under a new integrated governance framework to align priorities towards common water quality outcomes and adopt a whole-of-catchment perspective.

NSW is actively working towards reforming governance arrangements to improve water quality and waterway health by transitioning to an integrated catchment management approach, which will enable more effective integration of land and water management with increased focus on cumulative impacts from diffuse source water pollution.

NSW is supportive of the Basin Plan providing the strategic direction and underpinning national support for managing water quality. However, given the relatively early stages of reviewing and improving the development of integrated catchment management reform in NSW, any Basin Plan direction must be flexible to accommodate different pathways to compliance (i.e., the Basin Plan could set the strategic direction for what outcomes it is seeking to achieve but not the 'how' of achieving these). An example of this type of approach is demonstrated with the evolution of the Basin Salinity Management Strategy where the outcomes were specified but there was sufficient flexibility to allow for the approach to evolve and address lessons learnt along the implementation journey. It is acknowledged that initiatives like these, paired with improved understanding of

catchment processes, have resulted in improved risk management and salinity outcomes in the Basin.

It is noted that the Discussion Paper focuses on proposed options that rely on further information and evidence gathering and reporting. NSW already has a lot of good evidence and information about what is driving poor water quality which has been documented in the Water Quality Management Plans. NSW recommends that funding and efforts should now be prioritised toward the highest impact interventions and actions to mitigate water quality issues, rather than replicating information that we already have.

Management of land, water and ecosystems as a single, interconnected system must be supported with long-term funding to support coordination, science, planning and action. NSW welcomes the opportunity to further explore this in collaboration with the Authority and the Australian Government.

Addressing water quality issues at Menindee should be shared across Basin jurisdictions

Menindee Lakes has been the subject of numerous inquiries following mass fish death events, with poor water quality identified as one of the leading causes alongside physical barriers that restrict fish movement. As a shared resource collectively managed by NSW, Victoria, South Australia and the Authority—supported by jointly managed Basin infrastructure—its stewardship must prioritise not only the protection of environmental health but also the wellbeing of the communities that depend on it.

Despite this shared responsibility and accountability, NSW is primarily left to manage and mitigate ongoing threats to the Menindee ecosystem from poor water quality. NSW is required to discharge large volumes of water to de-stratify the water column to ensure anoxic environments do not occur which would otherwise trigger massive fish deaths. Once storage levels reach 480 GL and the management of the water resource within Menindee Lakes falls completely to NSW, the only water available to manage water quality risks, above the inadequate minimum releases, is from licensed environmental water.



Since the 2023 fish kills, environmental water managers have used substantial volumes of environmental water to mitigate water quality risks. Use of environmental water for this purpose results in the trade-off of not having this water available for other key environmental requirements.

Within this context, NSW is looking to a shared accountability (both legal and financial) and solution across all responsible government entities for managing water quality issues in the Menindee Lakes and Lower Darling-Baaka.

This issue would also benefit by improving the clarity around Basin Plan obligations imposed on environmental water managers ‘having regard’ to water quality targets in their decision-making.

The current Chapter 8 and s9.14 of the *Basin Plan 2012* has created confusion as to when, how and if these obligations should apply and do not acknowledge the shared responsibility for this issue. These obligations also do not differentiate between planned and licensed (held) environmental water, potentially overreaching into the discretionary use of licensed environmental water.

Response to hot spot areas identified

The Basin Plan initiatives in the past have suffered from an overly ambitious approach to resolving issues, trying to make change in a 10-year cycle that cannot be feasibly achieved with the resourcing, funding and change management/social change challenges that must be overcome to make the programs successful.

There are many locations within NSW that suffer from poor water quality. Whilst NSW agrees with the four water quality hotspots identified in NSW (Lake Hume, Mid Murray (Edward-Wakool), Northern Basin Rivers above Menindee and Menindee and Lower Darling, it likely under-represents the issue which is prevalent State-wide. However, identifying extremely large areas such as the Northern Basin above Menindee and the Lower Darling is overly broad and ambitious, making it difficult to target actions effectively or deliver meaningful improvements.

NSW instead recommends a targeted, risk-based approach to improve high priority areas at a sub-catchment level where complementary initiatives can work together to augment water management outcomes for the environment and all water users, noting that this approach would need to consider downstream impacts and connectivity issues. These must be long-term solutions with the appropriate funding means to ensure the longevity of outcome success.

There are some relatively quick (but costly) actions, such as stock fencing and river-bank stabilisation, that can be completed to improve water quality in the short to medium term. However, long-term water quality reforms, such as integrated catchment management, are complex and require significant lead time to see lasting, real-world differences in achieving outcomes. Stakeholder expectations must be managed to ensure everyone has a common understanding of what needs to happen next, how it needs to happen and when results may actually become apparent.

For example, The Great Barrier Reef integrated catchment management program is now in its 17th year of operation. This program has shown positive outcomes, however, the timeframes and funding for achieving success are long and substantial. The program has needed to be adaptively managed over time with regulatory support to underpin progress.

This demonstrates the level of commitment that is needed from both the Australian and State Governments to make water quality improvements successful in the long run, rather than temporary solutions where progress in achieving outcomes diminishes when short-term grant cycle funding is removed.

Simplify and streamline water quality objectives and make them more appropriate for groundwater

The overarching water quality objective should be updated

The Discussion Paper suggests that the Basin Plan's water quality objectives and targets could be strengthened to:

- ensure that they are applicable Basin-wide, with additional measures for the northern Basin
- enable meaningful performance reporting and monitoring against water quality objectives
- become technically robust and responsive to the needs of communities and the environment

NSW welcomes the opportunity to work with the Authority to improve the existing overarching Basin Plan water quality objective to make them more meaningful.

Water quality sub-objectives can be significantly improved

The objectives and targets specified in the *Basin Plan 2012* are highly repetitive, convoluted and duplicative as demonstrated by the multiple times different objectives and targets are included in

the *Basin Plan 2012* (existing provisions include water quality objectives (Part 3 of Chapter 9), targets at a high level (Part 4 of Chapter 9), targets for environmental water use (s9.14 and Chapter 8) and more specific targets per valleys (in Schedule 11)).

NSW strongly recommends reviewing these provisions with the aim of consolidating them into a single instrument to avoid confusion. NSW is ambivalent on whether the consolidated instrument is contained within the Basin Plan or referencing existing instruments or guidelines, such as the Australian Water Quality Guidelines.

Surface water targets are too broad and require refinement

When it comes to water quality management, a targeted approach is more appropriate and would achieve better overall water quality results. Water quality targets should be reduced to focus on those influenced by flow (dissolved oxygen, algae and salinity levels) which is the current focus of monitoring and reporting in NSW and on ecologically relevant indicators to fish and other biota (turbidity and temperature) that can be linked back to the Basin Plan objectives and outcomes. Where there is investment under the Basin Plan to implement integrated catchment management, NSW recommends that funding also be put toward extending the monitoring of attributes to include pesticides and other key pollutant and nutrient loads that integrated catchment management could directly address to assess the effectiveness of this intervention.

Objectives for raw water must be removed as these are superfluous

The matter of ensuring the quality of raw water for drinking purposes should remain with local water utilities as this water is treated to a certain level to ensure water quality standards are met. Water quality coming out of storage cannot be guaranteed to meet drinking water standards without prior treatment and to indicate otherwise may result in serious issues where people consume water assuming a level of water quality has been achieved. There are existing national guidelines under the Australian Drinking Water Guidelines that provide the targets for drinking water standards which does not need to be replicated in the Basin Plan.

A different approach and targets are needed for groundwater

NSW recommends that surface water quality concepts and targets are not replicated for groundwater due to the ill-fitting nature of these concepts for groundwater. As described above, groundwater quality is naturally variable and ecosystems in these groundwater areas are adapted to the aquifer water quality, which often contains salt and can be highly saline. There is a need to move away from considering more saline water as “waste” when this water can be treated making this water resource valuable for multiple uses.

Support for a new cultural water quality objective to increase involvement in water quality planning and management

NSW has heard from Aboriginal stakeholders that poor water quality has had a significant impact on communities and that the health of the river is intrinsically linked to the health and well-being of Aboriginal communities.

NSW supports inclusion of specific Aboriginal water quality objectives in the Basin Plan. The provision of Australian Government national policy and financial support to progress integrated catchment management in NSW will likely greatly assist in more meaningfully pursuing an Aboriginal water quality objective as these will intrinsically be tied to Country. NSW supports strengthening involvement of Aboriginal peoples in water quality planning and management based on free, prior and informed consent principles. As described in other sections of this submission, there continue to be complexities in forming partnerships that fully support greater Aboriginal involvement. While these challenges will require time and resources to work through, NSW remains committed to progressing these opportunities.

Salinity export objectives and targets should be updated to reflect the latest Basin Salinity Management assessments and information

Resource condition indicators should be used rather than targets for salinity

The current objective has been achieved just twice since the objective was set, this being in 2012-13 and 2022-23, both years when flows were high. In terms of water managers and operators 'having regard' to targets, including the salt export objective, there is some ambiguity as to the expectations of the scale of the risks that are intended to be managed, and whether they can be plausibly achieved at the River Murray system scale.

NSW recommends going back to first principles to examine the option of removing the salt export objective as it is not clear what the benefit of this objective actually is.

If changes are proposed to the Salinity Export Scheme, it is recommended that the Productivity Commission recommendations are addressed and consider:

- The relationship between the salt export objective and site-specific salinity targets that require a higher prioritisation to meet water quality objectives, and
- Whether there are any additional environmental benefits associated with achieving the salt export objective that are not covered by achieving the environmental outcomes of the Basin Plan.

Consideration should also be given to the shift in policy settings to refer to resource condition indicators rather than targets. High climatic variability, the diffuse nature of land management, and

the high cost of operating benchmark-period models have all contributed to the decline in the usefulness of end of valley targets as an accountability measure under the Basin Salinity Management 2030 Strategy. These limitations also diminish their relevance within the Basin Plan, where their application offers limited practical value. It is therefore appropriate to question the validity of comparing year to year monitoring data with these end-of-valley targets, and to recommend that references to these values be removed from Basin Plan-related policy or planning documents.



Investment in strategic targeted monitoring sites like the Lower Wakool/Edwards system may prove beneficial

The potential benefits and costs of establishing a new salinity monitoring site in the lower Wakool/Edwards system should be explored as the salt inflows from this system ‘stand out’ as a significant gap in the agreed potential source of salt to the Murray that is not currently captured by the formally agreed end-of-valley monitoring network.

Any additional reporting proposed by the Authority would require funding and it would have to be considered within the context that it would be taking away opportunities from other measures.

The outstanding Authority review on salinity targets should be completed

The Authority Review of the Water Quality Objectives and Targets in the Basin Plan (2024) initially included the review of the Burtundy salinity target due to its frequent exceedance to assess whether it represented an acceptable level of risk or whether further management action was required. However, the Burtundy target review was put on hold until the outcomes of other relevant projects including the Northern Basin connectivity trials and changes to operations at Menindee became available. NSW supports the completion of this review and the establishment of any new targets in the Darling (and even Barwon) that take into account contemporary risk and management.

Recommendation 4: Improvements are needed to advance First Nations water management objectives and outcomes

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to ‘Chapter 1 Context and approach for the 2026 Basin Plan Review’, ‘Chapter 2 The evidence base for the 2026 Basin Plan Review’, ‘Chapter 4 Maximising environmental water’ (sections 4.4, 4.5 and 4.6), ‘Chapter 5 Improving river connectivity in the northern Basin’ (sections 5.1 and 5.3), ‘Chapter 6 Improving floodplain and wetland health’ (sections 6.1 and 6.3), ‘Chapter 7 Responding to native fish decline’ (section 7.1), ‘Chapter 8 Managing water quality’ (section 8.2), ‘Chapter 10 – Basin Plan regulatory design’ (sections 10.2, 10.3, 10.5, 10.6) and ‘Chapter 11 Improving science and knowledge to inform Basin water management’ (sections 11.1, 11.2 and 11.3) of the Basin Plan Review Discussion Paper.

NSW welcomes increasing First Nations involvement and participation in water management planning provided this respects Aboriginal Peoples knowledge, decisions and self-determination

NSW recognises that water is central to Aboriginal cultural, spiritual, social, and economic wellbeing, and is committed to reforms that enable Aboriginal people to meaningfully participate in, influence, and benefit from water management, as reflected in NSW’s first dedicated Aboriginal Water Strategy released in October 2025.

Accordingly, NSW supports the proposed inclusion of First Nations outcomes and objectives in the Basin Plan to give effect to the 2023 amendments to the *Water Act 2007* (Cth). NSW is encouraged by the Authority’s commitment to be guided by existing agreements such as the Closing the Gap National Agreement and align with state water policies that seek to elevate First Nations voices.

Drawing on many years of engagement to understand Aboriginal aspirations, NSW, in partnership with Aboriginal peak organisations, is working to progress delivery of Closing the Gap priority reforms and advance Aboriginal access to, ownership of, and management of inland waters including developing, implementing and reporting on a state-based target for water under the National Agreement on Closing the Gap.

This work builds on initiatives and arrangements already in place to strengthen the role of Aboriginal peoples in water management and support culturally informed water management in NSW including:

- Environmental Water Advisory Groups (EWAGs) operate at a catchment scale in NSW and include Aboriginal representatives as core members, ensuring Aboriginal cultural knowledge and community views help shape environmental watering decisions and inform annual environmental water planning. Aboriginal participants contribute advice on watering priorities, impacts on culturally significant sites, and local ecosystem needs, and they share information back into their communities. EWAGs meet regularly, providing ongoing opportunities for Aboriginal voices to be heard in planning, monitoring and adaptive management of environmental water. EWAGs are a vital component of NSW's Healing Country Program which partners First Nation's people with the environmental water program.
- Regional Aboriginal Water Committees were established as a culturally safe forum for Aboriginal communities to share knowledge, raise concerns, and shape water management decisions that affect Country and culture, and informed the development of NSW's Aboriginal Water Strategy.
- Partnerships with NSW Aboriginal Land Council and NTSCorp to develop options for the design of NSW's Closing the Gap Inland Waters Target, to support Aboriginal peoples access to and ownership of water and decision making in relation to water management.
- Delivering cultural values monitoring and capacity building activities to support greater participation by Aboriginal communities in environmental water planning, delivery and monitoring as part of the Reconnecting River Country Program's Murrumbidgee Project.

The Discussion Paper outlines a number of the options to strengthen opportunities for Aboriginal Peoples' participation and outcomes including:

- updating the Basin Plan's acknowledgement of Traditional Owners and recognise their connection to the Basin's rivers and groundwater in the Basin Plan
- increasing First Nations peoples' inclusion in water planning and management, including at the state, regional and local scale, through clear processes underpinned by free, prior and informed consent
- expanding First Nations participation in environmental water planning, delivery and monitoring from the local to Basin scale
- enabling opportunities for First Nations peoples to be involved in and contribute their science and knowledges to Basin Plan monitoring, evaluation and reporting.

NSW is supportive of the intent of these options and notes the various scales they can be considered and implemented, which may be influenced based on available funding. Aligning and coordinating approaches and processes at the State and Basin scales will be important to avoid duplication and ensure engagement with Aboriginal peoples remains coherent, consistent and respectful of existing NSW obligations and relationships.

Genuinely addressing Aboriginal interests and strengthening participation in water management must uphold the principle of self-determination, respect cultural Authority and safety, and embed

free, prior and informed consent including ensuring that cultural knowledge is only used with permission and cultural approval. This requires First-Nations-led processes, priorities and governance structures that reflect Aboriginal knowledge systems, lived experience, and community defined aspirations—not retrofitting First Nations perspectives into predetermined policy settings or requirements.

In addition to increasing First Nations involvement and participation in water management planning, NSW is also taking steps to increase Aboriginal access to and ownership of water. This responds to what we have heard from Aboriginal communities over many years about their desired outcomes and objectives for water. It also acknowledges the significance of waterway health and caring for Country to Aboriginal community wellbeing and the key role water plays as an enabler of economic prosperity and self-determination.

Examples include:

- Running a registration of interest process to transfer up to 26,000 ML of government held water shares directly to Aboriginal controlled organisations and entities. These licences will be transferred at no cost and can be taken and used for any purpose (including economic, environmental and cultural) and can be held indefinitely or traded permanently, temporarily or leased.
- Improving information, simplifying processes and introducing fees and charges waivers to improve the accessibility and uptake of Cultural Specific Purpose Access Licences.



Recommendation 5: Improvements are required to river connectivity including through protecting flows at critical times

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to ‘Chapter 5 Improving river connectivity in the northern Basin’ and ‘Chapter 11 Improving science and knowledge to inform Basin water management’ of the Basin Plan Review Discussion Paper.

Northern Basin flow connectivity issues

The Barwon-Darling River connects the northern and southern Murray-Darling Basin with over 90% of inflows into the Barwon-Darling coming from upstream NSW and Queensland catchments

The volume of water flowing into the Barwon-Darling system is influenced by upstream climate conditions, river infrastructure and extraction in upstream catchments (Border Rivers, Gwydir, Namoi, Wambuul/Macquarie and the Intersecting Streams valleys and Queensland valleys). The Barwon-Darling River naturally goes through wetting and drying cycles and has stopped flowing for prolonged periods.

Extended and frequent dry periods reduce the recovery time in between droughts, affecting critical human needs and environmental health. Extended dry periods also have cultural impacts across the region. Climate change could result in more times when the northern tributary rivers do not connect with the Barwon-Darling River.

Despite water sharing plan rules protecting low flows in the Barwon-Darling, there is less water flowing into this valley from upstream catchments leading to longer periods of cease to flow events and/or periods of extended low flows without freshes or baseflows. Since the low flows are now much smaller and less continuous, the ecological template that has served the river for millennia is disrupted.

The loss of regular pulses and the cessation of flows in rivers can result in the drying of flowing water habitats and refuge pools, increased sedimentation, water quality deterioration (elevated water temperature and low dissolved oxygen levels) and the loss of connectivity through the river system – all of which have damaging effects on aquatic and riparian ecosystems.

Protecting the first flows after extended dry periods is one critical drought recovery lever as it supports important environmental cues and nutrient exchange essential for water quality and ensures water is available for towns and communities.

Building on the Authority's proposed core water resource plan requirement to prioritise connectivity between planning areas, including across borders, at crucial times, NSW recommends a more specific requirement that cross-jurisdictional border flows following periods of drought be protected to meet critical human water needs and support reconnection of aquatic and riparian environments. This would ensure critical human water needs and water for the environment is prioritised above consumptive take and is dependent on critical human water needs being met first in the origin Basin state. This approach would ensure levers to affect this change are within the relevant Basin's states remit and control. NSW has rules in place to improve flows along the Barwon-Darling to assist with maintaining connectivity following periods of low flows and to protect first flows after a dry period and is now considering expanding protection of these first flows to the tributary valleys.

In 2020, NSW made changes to the Barwon-Darling Water Sharing Plan to improve connectivity. These changes included:

- raising the threshold at which A-Class licence holders can access water to help protect low flows.
- implementing individual daily extraction component to manage the amount of water that can be taken during peak irrigation periods.
- protecting licenced environmental water from extraction as it moves through the Barwon-Darling.
- a resumption of flow rule that protects first flows after an extended dry period from irrigation extraction so they remain in the system for social, cultural and environmental outcomes.

The current resumption of flow rule only restricts access in the Barwon-Darling. NSW is currently investigating how this concept could be expanded to also restrict irrigation access to the first flows in the tributary valleys until lifting triggers in the Barwon-Darling have been met. This is to address key recommendations from reviews following the 2017-20 drought, including the Independent Assessment of the 2018-19 fish deaths in the lower Darling (Vertessy review¹) and the Independent Panel Assessment of the Management of the 2020 Northern Basin First Flush Event². The Western Regional Water Strategy did considerable analysis and consultation on options for improving connectivity in dry times.

An independent Connectivity Expert Panel (the Panel) was established by the NSW Government in 2023 to review the work the Department had done and provide independent advice on improving hydrological connectivity into and along the Barwon-Darling/Baaka. The Panel's 2024 Interim and Final Reports highlighted that the river system is being run too dry, too often, due to altered flow regimes, extraction pressures, and upstream regulation. These conditions reduce small and medium

¹ [final-report-independent-panel-fish-deaths-lower-darling.pdf](#)

² [Northern Basin First Flush Assessment | NSW Government Water](#)

flow events, weaken ecosystem resilience, and impact Aboriginal cultural values tied to flowing waterways.

The Panel's report included recommendations to improve connectivity in non-dry and dry times. The focus of non-dry rules is to improve achievement of base-flows in the Barwon-Darling by setting an end of system minimum flow rule in the regulated tributary valleys. The Panel's recommendations for dry times included extending a resumption of flow rule into the tributary valleys and establishing a connectivity environmental water allowance to provide for critical human and environmental needs in dry times. These recommendations have been made independent of government and are not government policy. They will be one of several factors considered by government when determining potential changes to northern Basin water sharing plans aimed at improving flows into the Barwon-Darling to improve downstream outcomes.

NSW is undertaking further work to understand the environmental benefits and potential impacts on water access and regional communities before any rule changes to improve connectivity are adopted.



Barwon-Darling connectivity objectives and targets should be included in non-statutory plans as a guide to adaptively manage meeting these over time

The Discussion Paper states that the Authority is exploring whether the Basin Plan and/or the Basin-wide environmental watering strategy should include specific flow-based connectivity objectives and outcomes at points along the Barwon–Darling, such as Walgett, Bourke, Brewarrina and Wilcannia.

NSW does not support establishing specific flow-based connectivity targets in the Basin Plan and/or the Basin-wide environmental watering strategy as this fails to recognise the inherent natural

variability of river flows, it creates an expectation that connectivity can be achieved 100% of the time, and pre-empts the outcomes of the extensive work being undertaken under the NSW Connectivity Program.

The Barwon–Darling and Lower Darling naturally go through wetting and drying cycles and it is not unusual for the Barwon–Darling to stop flowing for extended periods. Hard-wiring targets will set NSW up for heavy criticism or failure if these are not achieved due to environmental conditions or water sharing reforms to achieve such targets are not able to be implemented.

Barwon-Darling flow targets are already contained within the NSW Barwon-Darling Long-term water plan. These targets are appropriately positioned in these plans as they guide decisions for environmental water use but are not directly enforceable which means they can be adaptively managed over time as our understanding and experience grows and more knowledge becomes available. While it may be argued that the Barwon–Darling should be treated as a special case, setting specific targets for this system would depart from the way other water sources are managed across the Basin and could diminish overall policy consistency.

More governance and overseeing entities do not equate to better coordination or improved outcomes

The Discussion Paper states that the Authority is exploring ways to bolster the role of the Northern Basin Environmental Watering Group (NBEWG) in supporting outcomes.

The NBEWG is an established functional governance group that coordinates environmental water delivery in the northern basin. NSW supports NBEWG having greater role clarity, accountability, a refresh of standing membership, strategic alignment at the appropriate temporal and spatial scales and a more proactive rather than reactive approach to coordination. Together, these could improve large-scale connectivity outcomes across the Northern Basin and support advancing the recovery of native fish populations and broader ecological functions.

NSW is open to exploring an expansion of NBEWG's remit provided the existing issues relating to improved environmental water management, coordination and planning are better articulated and that the solution posed will directly address this issue. Notwithstanding any changes to better clarify NBEWG's responsibilities and processes, NSW recommends that NBEWG continue to operate under the guidance of the *Water Act 2007* and Basin Plan without being formally recognised in legislation or given statutory functions. This aligns with the Southern Basin equivalent, the Southern Basin Environmental Watering Committee (SCBEC), which is a non-statutory body. Adequate funding to support an increased remit is a critical consideration to ensure that any suggested improvements can be delivered on-ground.

Review of the operating arrangements of Menindee Lakes

A review of the operating arrangements of Menindee Lakes is underway

The Menindee Lakes hold deep cultural and spiritual importance for the Barkandji/Paakantji people, support major ecological functions including habitat for waterbirds, nursery habitats for native fish, and play a key role in the broader Murray–Darling Basin system for flow regulation, drought security, and interstate water sharing, while also contributing to regional tourism, recreation, and local economies.

The review of Menindee Lakes operating arrangements is a collaborative effort by the Authority and River Murray governments to address long-standing operational and water management challenges. The review aims to find a viable way forward that responds to concerns and prepares for the future, focusing on the long-term health and resilience of Basin communities, industries, and the environment. We look forward to hearing from communities on these issues.



ACT/NSW monitoring point for the Upper Murrumbidgee connectivity issues

NSW would welcome a monitoring point between NSW and ACT that includes river gauging data and ideally water quality monitoring data supported by Australian Government funding.

NSW and the ACT are working together to determine appropriate monitoring activities via the “Restoring the upper Murrumbidgee Program”, noting that without funding, WaterNSW is unable to maintain the gauging network and water quality sampling along the Upper Murrumbidgee.

NSW has an existing arrangement under the Snowy Water Licence that environmental water is released from Tantangara Dam by Snowy Hydro Limited who manage and operate the dam as part of the Snowy Mountains Scheme. NSW protects this water through active management (e.g. increased cease to pump threshold). Releases from Tantangara Dam are being considered in the review of the Snowy Water Inquiry Outcomes Implementation Deed that is currently underway. Though NSW input has been sought to inform this review, this matter is outside the control of NSW water agencies.

Recommendation 6: A pathway is urgently needed to ensure constraints projects can be delivered post December 2026

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to ‘Chapter 6 Improving floodplain and wetland health’ of the Basin Plan Review Discussion Paper.

Full relaxation of constraints will help achieve the Basin Plan’s intended outcomes

Relaxing constraints is aimed at increasing the connection between the Basin’s rivers and floodplains through better use of environmental water which will improve river health, fish, waterbird, macroinvertebrates and vegetation outcomes. This connection is essential to support a healthy riparian and riverine environment as well as to deliver social, economic and cultural benefits across the Basin.

Addressing constraints to enable higher environmental flows at a system-scale is critical to achieve Basin Plan outcomes and maximise the utility of water recovered for the environment by the Australian Government to date. Further water recovery or reliance on small scale, site-specific projects will not deliver the benefits that can be achieved by constraints relaxation.

It is important to recognise that there are a range of constraints that need to be addressed beyond physical barriers. This includes operational, planning, policy, regulatory and legislative barriers which require time to resolve. There is no easy fix for delivering constraints relaxation until these larger, more complex barriers are overcome and the scale and complexity of relaxing constraints and establishing a river operator authorising environment for higher environmental flows should not be underestimated.

The Authority has released a Constraints Relaxation Implementation Roadmap

The Constraints Relaxation Implementation Roadmap was published by the Authority in December 2024. It contained 12 findings to assist Basin Governments identify, develop, and implement measures to relax constraints and add value to environmental water. NSW supports the Roadmap findings and draws the following out given their specific relevance to matters being considered as part of the Basin Plan Review:

- successfully relaxing constraints requires a 10-year program (Finding 3)

- it is essential to continue to support the delivery of existing constraints projects (Finding 5)
- the contribution of constraints relaxation to Basin Plan outcomes should be recognised through reduced water recovery (Finding 9).

This suite of findings recognises the inherent complexity of constraints projects and supports the continued recognition of their unique contribution to environmental water management in the Basin.

NSW is in active delivery to reconnect floodplains in the Murrumbidgee and Gwydir

NSW constraints relaxation projects in the Murrumbidgee and Murray (Reconnecting River Country Program) and in the Gwydir (Reconnecting Watercourse Country Program) have been progressed under the Sustainable Diversion Limit Adjustment Mechanism and Northern Basin Toolkit respectively. We acknowledge that there were initial delays in delivering constraints programs; however, NSW has made substantial progress in recent years, significantly accelerating the delivery of these complex initiatives.

Significant progress has been made and valuable work undertaken to enable new environmental flow arrangements, however these projects will not be complete by the conclusion of both SDLAM and the Northern Basin Toolkit on 31 December 2026. A summary of delivery status for these projects is set out in Table 3 below.

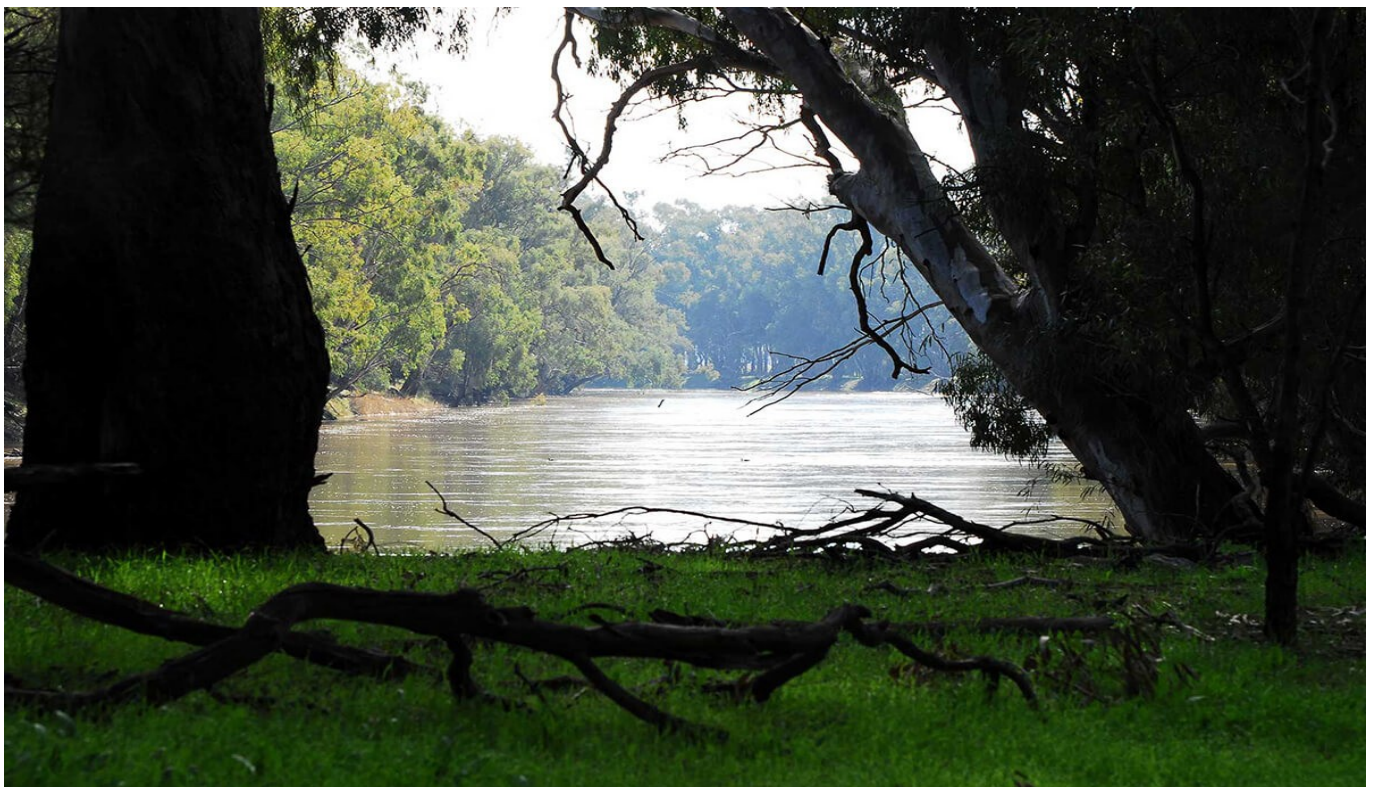


Table 3 Delivery of constraints projects in the Murrumbidgee and Gwydir

Delivery details	Murrumbidgee	Gwydir
Delivered to date	• Strategic Business Case delivered 2022. • Finalised and submitted a Final Business Case in February 2025 with recommended upper environmental flow limit (40,000 ML/day at Wagga Wagga), investment required for full project delivery, program measures, and phased delivery strategy. • NSW Landholder Negotiation Scheme regulation made and statutory Negotiation Guidelines developed which formalised a process to negotiate agreements with landholders affected by the proposed higher environmental flows. • Commenced landholder negotiations in the Phase 1 area following gazettal of the first Declaration Order under the LNS on 29 August 2025.	• Feasibility Proposal delivered 2020. • Business Case delivered 2021. • Commencement of priority physical work activities (Phase 1) including in the Gwydir Wetlands State Conservation Area. • Negotiations commenced with affected landholders in the Gingham and Lower Gwydir watercourses to implement priority physical works that improve on-property access during environmental water flows in accordance with the NSW Landholder Negotiation Scheme. • Design works commenced to reinstate target flows to the Gingham watercourse at the raft. • Foundational activities commenced to support Phase 2 implementation of securing flow corridors.

Delivery details	Murrumbidgee	Gwydir
Proposed to be delivered by the end of 2026	• Development of a River Operator Authorising Framework. • Complete landholder negotiations that secure up to 40% of the inundated area of the Murrumbidgee flow corridor and continued engagement with landholders outside of the Phase 1 negotiation area. • Scoping of public land infrastructure projects (for delivery after December 2026, subject to funding). • Deliver early/priority infrastructure projects removing and replacing critical low-lying public infrastructure, including the construction of the new Mundarlo Bridge near Gundagai and the raising of Mundowry Lane near Collingullie (Murrumbidgee). • Delivery of First Nations enabling measures. • Enhanced flow notification systems.	• Development of a River Operator Authorising Framework. • Completion of priority works, watercourse crossings, where properties are bisected by the watercourse in the Lower Gwydir and Gingham watercourses. • Completion of targeted mechanical removal and local works at the Gingham raft to return flows to the Gingham Watercourse. • Completion of First Nations priority projects. • Completion of infrastructure works in the Gwydir Wetlands State Conservation Area to re-naturalise the wetland area, improve flow connectivity and support fish passage. • Installation of telemetered monitoring devices in strategic locations to provide real-time data related to system flows and environmental water deliveries. • Early works to support flow easement negotiations during Phase 2 (for delivery after December 2026, subject to funding).

NSW has delivered and continues to progress key work to relax constraints in the Murray

NSW has delivered and continues to progress several key elements in the Murray including a Strategic Business Case (2022), landholder consultation and engagement, technical studies (hydraulic modelling, environmental benefits and risk assessment, climate change assessments) and infrastructure upgrades (Mid-Murray Anabranches and Werai Forest regulators early works). This suite of elements will support delivery of higher flows in the Murray over the long term.

The significant investment and lessons learned in progressing the critical enabling elements to support delivery of relaxed constraints in the Murrumbidgee is intended to be applied in the Murray and should reduce overall delivery timing.

There are challenges to progressing co-ordinated constraints relaxation in the Murray

An Independent Advisory Panel for the Murray and Goulburn constraints projects has been convened by the Authority following the Constraints Relaxation Implementation Roadmap. The Panel will provide advice to Basin Ministers in 2026 on a way forward for the Murray where cross-jurisdictional issues have hampered progress to date. This will be an important input to inform the way forward.

The suggestion by the Authority in the Discussion Paper to progress modest increases in flows downstream of Yarrawonga is not supported by NSW if this is a reference to overbank flows. This is not possible in practice noting current operational, policy or physical constraints to higher flows cannot be addressed in an incremental way.

Agreements with impacted NSW landholders would first need to be sought under the NSW Landholder Negotiation Scheme Regulation for the highest intended upper flow limit (confirmed in a final business case) and impacts appropriately mitigated. Trial flows may only be possible once necessary landholder arrangements are in place and the authorising environment for river operators is established. Trying to deliver incremental flows before resolving these longer term, complex matters would be costly, inefficient and would undermine stakeholder confidence in our commitment to long term delivery. Similarly, physical works to accommodate higher flows need to progress through several approval and assessment processes and delivering works to align with one flow rate then augmenting works within a short time frame to support higher flows is inefficient and wastes public investment.

In the Roadmap, NSW did not support the inclusion of specific flow rates in Finding 7. NSW places strong emphasis on the Final Business Case process as the key mechanism for determining the recommended solution. In 2022, the Infrastructure NSW review panel recommended that the shortlisted flow limit options presented in NSW's Strategic Business Case progress to a final business case. As part of our final business case development process, we are required to assess the benefits and risks of a range of flow rates through an options assessment ultimately determining a preferred flow limit informed by environmental utility, cost benefit and delivery timeframe considerations.

However, NSW is actively considering and working with environmental water managers on options for incremental flows that will deliver localised benefits in the Murray within current physical or operational constraints and where these are supported by landholders.

A pathway to confirm delivery of constraints projects post December 2026 is needed now, with continuity of funding

Constraints projects are inherently difficult to deliver due to the combination of landholder impacts, infrastructure requirements, social and cultural considerations, and complex multijurisdictional governance. These factors collectively slow progress, elevate delivery costs, and make it challenging to achieve the outcomes required under the Basin Plan.

NSW supports the Authority's recommendation that projects in delivery in the Murrumbidgee and Gwydir continue to be progressed as a priority. With this essential foundational and enabling work underway, we will continue to build momentum and strongly advocate for an ongoing delivery and funding pathway to finalise these projects and deliver flexibility for environmental water managers in the use of their portfolio to meet the intended outcomes of the Basin Plan.

Funding arrangements for the Reconnecting River Country Program and Reconnecting Watercourse Country Program cease in the 2026-2027 financial year. Given the scale of engagement and investment in these projects to date, there will be significant consequences if a commitment to ongoing delivery and funding is not made by mid-2026. This includes:

- incomplete delivery across the Basin, limiting environmental outcomes achieved and full realisation of the benefit of the programs.
- in the Murrumbidgee, legal instruments being in place over hundreds of landholdings which are not required.
- in the Gwydir, removal of opportunities to expand the program into other watercourses.
- public investment wasted due to incomplete delivery, stranded assets (including easements), legislative and policy reforms that are no longer necessary.
- increased overall delivery costs and extended timeframes due to the need to end contracts of specialist skilled staff, project teams and specialist expertise.
- increased overall delivery costs due to anticipated future increases in material and supplier costs to deliver constraints relaxation infrastructure.
- significant stakeholder risk, undermining confidence in the program and the program's ability to reach agreement with landholders resulting in distrust in Commonwealth and State governments.

Additional funding for constraints relaxation in the Murray is also required and will be informed by the Independent Advisory Panel's advice to Ministers in mid-2026.

Continued delivery of constraints projects needs to be recognised through reduced water recovery

The risk of further water recovery to meet Basin Plan targets will materialise following the SDLAM reconciliation to be completed by the Authority by 31 December 2026. Not all SDLAM projects will

be completed by the December 2026 statutory deadline resulting in potential future water recovery of between 250 to 350 GL. The Australian Government is responsible for addressing this shortfall and may elect to close this gap through further water buybacks or permanently reducing water access by lowering legal limits (SDLs).

NSW is keen to work with the Australian Government and other Basin Governments on a pathway to remove, or at the least reduce, the SDLAM shortfall that does not rely on additional water recovery but instead on delivery of projects and programs that achieves significant and demonstrable environmental benefits. This includes delivering constraints projects beyond 2026. Higher environmental flows and connectivity between rivers and wetlands which can be achieved through constraints relaxation cannot be achieved by further water buybacks.

As part of the 2023 Agreement of Murray-Darling Basin Ministers to deliver the Basin Plan in full, Basin governments *“noted that not all constraints relaxation projects will be complete by 2026, but nevertheless support for those projects should continue. This arrangement will enable constraints projects, and their ability to contribute to water recovery, to be considered in the context of the Basin Plan Review.”*

As a signatory to this Agreement, and in-light of the Roadmap findings, NSW expects the Authority’s recommendations to reflect the significant contribution that relaxing constraints makes toward achieving Basin Plan outcomes in their final SDL assessments and advice.

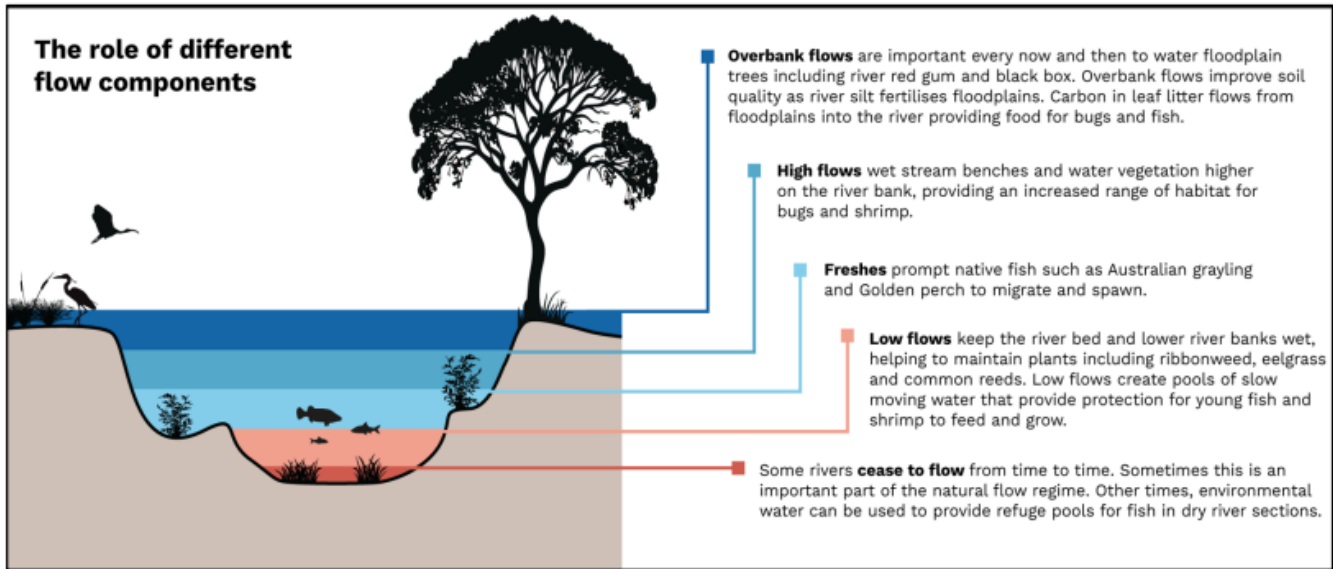
NSW also has a number of other projects that could not progress under the SDLAM program or the Resilient Rivers Water Infrastructure Program (RRWIP) these programs and contribute to water recovery targets due to design, funding or timeframe constraints. Delivery of these projects, a number of which already have community support, coupled with complementary measures such as fish passage, provides a solution to the SDLAM shortfall, that will achieve significant environmental outcomes without additional water recovery. The Australian Government may also wish to consider other programs that have contributed to environmental water outside of the Basin Plan, including those that have reduced diversions across the Basin.

Delivery of large-scale constraints relaxation projects will involve water user behavioural change which may not be immediately acceptable to stakeholders

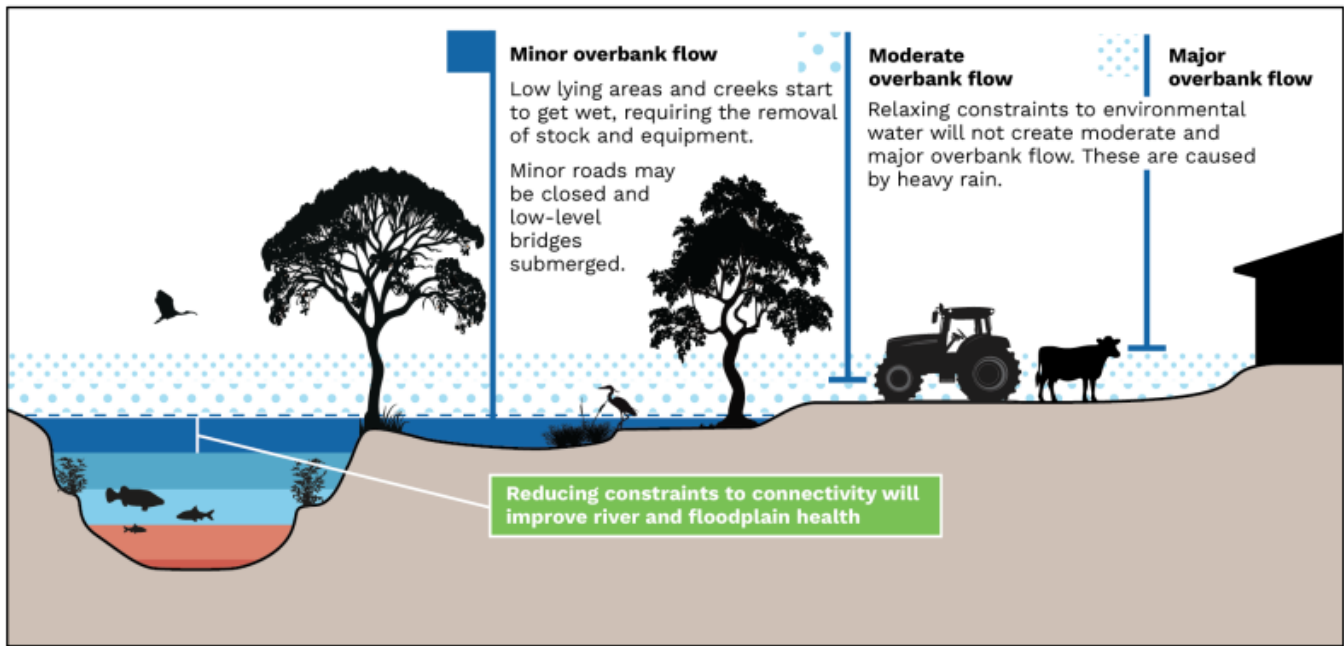
Delivering constraints relaxation projects at the scale of the Murrumbidgee, Murray and Gwydir project areas will require behavioural change to meet environmental needs in a changing climate. It is important to recognise that some stakeholder resistance is inevitable. While sustained and meaningful engagement will be essential to building and maintaining social licence, waiting for projects to be fully accepted by all stakeholders will only lead to further delays and unrealised Basin Plan outcomes. Basin jurisdictions will need to draw on the full range of available tools to

deliver projects of this scale and complexity (for example, considering compulsory acquisition of easements in some cases where necessary and as a last resort).

While the Discussion Paper emphasises that progress in the Murray must be socially acceptable, it is equally important to acknowledge that some reluctance is expected. Achieving meaningful change and meeting the needs of the environment under a changing climate will require bold decisions, trade-offs, and committed, ongoing engagement to bring stakeholders along.



Source: Constraints relaxation implementation roadmap (MDBA 2024) - The role of different flow levels for managed environmental water releases.



Source: Constraints relaxation implementation roadmap (MDBA 2024) – Relaxing constraints will help water reach low-lying floodplains.

Recommendation 7: A works and measures program is needed to improve fish health, habitat and facilitate life cycle processes

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response ‘Chapter 5 Improving river connectivity in the northern Basin’ and ‘Chapter 6 Improving floodplain and wetland health’ and ‘Chapter 7 Responding to native fish decline’ of the Basin Plan Review Discussion Paper.

Native fish are intrinsic to the health of rivers and the people of the Basin. They have sustained and connected communities to culture, health and well-being, and traditions for thousands of generations. The protection and recovery of native fish require coordinated and collaborative management across a whole connected system, building on the gains that have been made through environmental management to date.

NSW welcomes recognition of the need to improve fish passage to support native fish recovery

Physical barriers including weirs inhibit native fish access to essential habitat that is critical for life stage processes. Within the Barwon-Darling Rivers alone, 12 weirs between Wilcannia and Mungindi prevent fish movement outside of barrier down-out flow events.

Physical barriers to connectivity can also exacerbate water quality issues from a concentration of nutrient loads backed up behind barriers which produce ideal conditions for hypoxic and blackwater events and subsequent fish deaths.

A significant amount of work is underway at Menindee to restore fish movement along the Lower Darling–Baaka River and address long-standing connectivity problems. Current investigations include:

- trialling an innovative temporary fish passage system to allow native fish to move past the Menindee Main Weir and Lake Wetherell Regulator — major barriers that contribute to fish kills by trapping fish in the weir pool, and
- developing permanent fish passage business cases for multiple weirs and regulators across the Menindee Lakes and Lower Darling-Baaka.

Investigating fish passage investment options for Menindee is essential to prevent the recurrence of mass fish deaths, restore ecological connectivity, and support the long-term recovery of native species. The system’s weirs and regulators currently block fish movement, creating dangerous biomass build-ups that have contributed to past fish kills, making temporary and permanent passage solutions critical for improving river health and resilience. Ongoing trials — such as the

innovative temporary fishway, which has already recorded thousands of successful fish movements—demonstrate early benefits and inform the design of lasting infrastructure. These investments also support cultural values for Aboriginal communities, address legacy constraints in the Menindee Lakes system, and underpin broader Basin Plan objectives to strengthen climate resilience and reconnect vital river habitat.

Northern Basin Toolkit projects are delivering promising outcomes for fish populations

NSW is receiving up to \$143 million under the Northern Basin Toolkit for a suite of projects including the Reconnecting the Northern Basin Project (fish passage), Reconnecting Watercourse Country (constraints removal), Fish Friendly Water Extraction (screening pumps) and the Pindari Dam Cold Water Pollution project.

Through the Northern Basin Toolkit and Macquarie Fish Screening Programs, over \$40 million has been dedicated to incentivising adoption of screening in the NSW portion of the northern Murray-Darling Basin. There have been 14 large-scale irrigation sites completed in the Macquarie-Wambuul River, Lower Mehi (Gwydir River), Namoi River, and Barwon River catchments, with one remaining site to be completed by mid-2026. Under these programs >4,000ML/day of fish-friendly water is now delivered to water users, protecting 1,400,000 native fish annually from being lost to extractive water use.



Continued financial support from the Australian Government is required to further build momentum and drive uptake of screens at gravity fed diversions and smaller pressurised systems, where there are opportunities to build our understanding of on-farm benefits. Further development of our understanding of these benefits provides a critical enabling mechanism for broader direct uptake of screening by water users. As water users' understanding of improved operational efficiencies are realised, their motivation to invest in modern fish screens will increase.

NSW recently started operation of the \$26 million Australian Government funded Pindari Dam bubble plume system. Initial results support the view that bubble plume destratification is a viable option to address cold water pollution and associated water quality risks (e.g., algae, nutrients, soluble metals) both within and downstream of priority reservoirs. Importantly, bubble plume

technology uses established off-the-shelf technology that is readily applicable to other high priority dams in the Basin. Moreover, mitigating cold water pollution can deliver substantial and enduring benefits including improved water quality, reduced algal blooms, healthier native fish populations, enhanced recreational fishing and amenity values, and cultural outcomes for communities connected to rivers.

The Reconnecting the Northern Basin Project aims to restore river connectivity and improve the health of native fish populations across the Barwon–Darling system. It focuses on removing or modifying barriers that prevent fish from moving freely along the river including at Calmundi, Barnaway, Louth and Tilpa Weirs. All projects are advancing in detailed design, environmental planning approvals and resolving work agreements and licensing – with works to be completed by December 2026.

Limited funding and constrained timeframes for these Northern Basin Toolkit projects has come up against significant cost escalation and delays due to unexpectedly high rainfall, COVID and the rapid increase in construction costs. This means that previously identified opportunities for realising benefits to fish populations which are not included in the current scope, require more time and funding to enable delivery. Any future Northern Basin program should consider a more holistic, system-wide approach to water infrastructure planning and operations, working in tandem with changes in water policy and strategy.

NSW supports investment in improving fish habitats and river health

NSW recommends the Australian Government target investment in an integrated package of works and measures that respond to the range of threats facing native fish and river health – including climate change and extreme events, informed by the best available knowledge from decades of on-ground environmental water management and associated monitoring programs, along with science, economics, culture and community inputs.

The aim of this program would be to physically and hydraulically connect environments, deliver water at an appropriate temperature and quality, and protect the biota within rivers from adverse impacts from extraction of water by industry and communities to ensure that the ecological responses to water delivery are not hampered by infrastructure limitations. The priority activities of the recommended package of works and measures, grouped under themes are:

Culture, fish and flows – healthy flows are fundamental for sustaining native fish populations and supporting cultural values. This theme strengthens world-class planning and management of water for the environment to achieve better outcomes for native fish, connectivity and cultural priorities. Continuous improvement, driven by the best available science, local and Aboriginal knowledge and strong community involvement will ensure water is managed and delivered strategically and effectively to protect and enhance cultural values and native fish assets.

Reconnecting the Basin – improved fish passage at priority structures to reconnect aquatic habitat in priority valleys. This theme enhances outcomes for recovered water by maximising connectivity outcomes at local to landscape scale and builds on the work delivered under the Reconnecting the Northern Basin Toolkit project. NSW has developed a Fish Passage Strategy that could be expanded across the Basin using previous cross-jurisdictional networks and processes to maximise outcomes of Basin significance.

Addressing cold water pollution – guided by proven cold water pollution mitigation technology, this theme results in significant water quality and native fish improvements downstream of high priority dams while enhancing ecological returns from flow delivery that contribute directly to Basin Plan targets. NSW is currently developing an updated Cold Water Pollution Strategy and this theme builds on work being delivered under the Pindari Dam Northern Basin Toolkit project.

Fish-friendly water extraction – implementation of targeted diversion screening at priority sites to protect native fish and farms and maximise benefits of complementary measures under the Basin Plan. NSW has developed a Diversion Screening Strategy that could be expanded across the Basin using existing relationships and outcomes from active projects including under the Northern Basin Toolkit in conjunction with key agencies, industry representatives, and water users. This theme improves native fish populations whilst bolstering farm productivity.

Threatened species recovery – protection, re-establishment and boosting populations of key threatened fish species in the Basin and their habitats. This theme would expand existing cross-jurisdiction recovery actions and work alongside targeted integrated catchment management actions at sites that complement use of water for the environment, tackling integrated pest management to deliver Basin Plan management priorities. A key focus of this theme is protecting and recovering threatened species through habitat rehabilitation in priority reaches involving targeted actions such as reinstating large woody habitat, planting native trees and aquatic vegetation and protecting riverbank and wetland areas.

Monitoring, evaluation and reporting - adaptive implementation of the program of works and measures must be underpinned by robust and transparent monitoring, evaluation and reporting, including systematic benefits realisation, to clearly demonstrate what is working and where adjustments are needed. While a wide range of monitoring, evaluation and reporting programs already operate across the Basin, stronger coordination, integration and data sharing is required to maximise learning, enhance outcomes, and support meaningful engagement with communities and stakeholders. Delivering a truly adaptive, evidence-driven program will also depend on long-term, stable investment by the Australian Government to ensure continuity of monitoring efforts, safeguard institutional knowledge, and provide confidence in long-term environmental performance tracking.

It is important that Basin scale strategies for native fish recovery explicitly recognise the role of regional delivery organisations and avoid overly centralised or prescriptive approaches. Flexibility to

tailor actions to local ecological conditions and community priorities will improve outcomes and investment efficiency.

NSW supports expediting research, planning and decisions around release of the carp virus

Carp are a serious pest in freshwater systems, modifying environments and causing significant declines in water quality and habitat availability for native fish. The Australian Government is assessing whether to release the carp virus and NSW encourages the Australian Government to expedite both current research and a final decision on the use of the virus within a suitable risk management framework.

The final decision regarding the use of the virus needs to be based on current and emerging research. However, to avoid further delays in implementation, it is essential that work is undertaken now to address the logistical, regulatory and technical challenges associated with a successful release of the virus. NSW requests that investment in planning and operational issues associated with any future release of the virus start as soon as practicable under a ‘no-regrets’ basis.

NSW is of the view that carp control measures will be most effective when undertaken using an integrated pest management approach and that investment in complementary activities to take advantage of future reductions in carp numbers will be a critical part of long-term carp management. These actions are aligned with other drivers within the Basin Plan Review around maximizing the outcomes of water that has been recovered and addressing the ongoing declines in native fish populations.



Recommendation 8: States must retain control of critical human water needs decisions within a changing climate context

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response 'Chapter 9 Water infrastructure and critical human water needs' of the Basin Plan Review Discussion Paper.

NSW recommends retaining the existing critical human water needs and extreme events measures rules (s10.51 of the Basin Plan) with improvements

NSW supports the existing extreme events and critical human water needs provisions in the Basin Plan (s10.51). These provide sufficient structure and prescription to direct how Basin states should manage these events and NSW undertook significant work to uplift standards to meet these requirements.

Despite the existing benefits of these extreme events rules, there are existing implementation issues that could be improved, including:

- difficulty in applying the 'critical human water needs' definition: The definition does not prioritise human consumption requirements over non-human consumption requirements and it is difficult to define what would constitute 'high social, economic or national security costs' and
- insufficient flexibility to adapt protocols to manage extreme events: Incident Response Guides, a NSW framework for managing water during extreme events, do not have sufficient flexibility to be amended and adapted as they are a requirement of water resource plans that need to be accredited. This significantly hampers NSW's ability to adaptively manage water in critical times.

The issue of insufficient flexibility to adapt NSW Incident Response Guides would be largely resolved if NSW was able to demonstrate compliance with the water resource plans requirements through state-based instruments and policy documents (as described under recommendation 1 above).

It is noted that NSW needs to manage water for critical human needs for both coastal and inland NSW and care must be taken to ensure that any changes to the Basin Plan do not create inequity or disparity in how this issue is dealt with in NSW.

NSW perspectives on critical human water needs planning in the River Murray system

Increased investment is needed to address ageing infrastructure, especially in the River Murray

The Discussion Paper touches on the issue of ageing infrastructure and the need for assets to remain fit for purpose and be in operable condition. NSW acknowledges that ageing Murray–Darling Basin infrastructure requires significant, sustained investment.

Existing structures such as dams, weirs, regulators and levees were built decades ago and now require substantial upgrades to ensure reliable water delivery, environmental flow management, and system resilience. The addition of climate pressures and operational demands reinforces the need for ongoing, large-scale, long-term investment to not only reduce the risk of asset failure and safety risks, but to keep the Basin’s systems functioning effectively. Pricing determinations of the Independent Pricing and Regulatory Tribunal (IPART) directly influence whether NSW can meet the rising cost pressures associated with maintaining and upgrading the Basin’s critical shared infrastructure.

Any additional climate change scenario analysis must be completed with the best available information and decisions made with concurrence from affected states

NSW understands that the Authority’s modelling analysis (section 9.3, page 71) about climate change impacts in meeting current critical human water needs for the Murray River were based on preliminary analysis only. NSW agrees with these preliminary findings.

However, if the Authority undertakes additional and more comprehensive analysis, we strongly recommend applying a risk-based process consistent with the NSW Minimum Inflows Project (refer below), supported by the paleoclimate datasets that NSW has developed. These datasets capture long-term climate variability and would strengthen the assessment. Adopting these datasets and methods would deliver on one of the recommendations of the Independent Hydroclimate Science Advisory Panel that modelling should “*transition to river system modelling that embeds the use of stochastic methods*”.

Any future changes to critical human water needs for the Murray River to address climate change, needs to be underpinned by a decision-making framework that is developed and agreed by NSW, Victoria, South Australia and the Australian Government and informed by robust analysis and the best available science.

More clarity is needed about the proposal to introduce minimum standards for state based critical human water needs planning outside the Murray system

The Discussion Paper contemplates the value of introducing minimum standards for state-based critical human water planning via improved water resource plan requirements and suggests that this could improve consultation with local communities, increase transparency and ensure robust assumptions underpin planning for critical human water needs in extreme events. It also highlights that this could increase regulatory complexity for potentially limited gain.

The information provided in the Discussion Paper is unclear in terms of what is actually being asked of Basin states and what additional resources would be required to meet these new minimum standards.

As a general principle, NSW strongly recommends that any new requirements be added with Basin state consensus and that any agreed requirements provide sufficient flexibility to allow Basin states to meet these in the most efficient, streamlined way to suit the Basin states existing frameworks and initiatives without increasing administrative burden.

NSW already undertakes extensive community consultation on Incident Response Guides, the NSW Extreme Events Policy and any amendments to the *Water Management (General) Regulation 2025* or the *Water Management Act 2000* that set out how water will be managed in extreme events. In addition, during an extreme event, two-way communication between the NSW Government and communities is substantially increased to support communities during these crises to manage these events. NSW has established robust planning and protocols, based on the best available data including assessing potential climate change impacts, to provide clarity about how water will be managed during extreme events.

NSW acknowledges that climate change will likely have widespread impacts for both the environment and water users and future decision making needs to be cognisant of these risks.

The Authority notes it is aware there is a risk of increasing regulatory complexity for potentially limited on-ground benefit. NSW strongly agrees that there is the risk of increasing regulatory complexity for potentially limited on-ground benefit. An example of this risk would come in the form of mandated reporting of how minimum standards were being met that went beyond demonstrating compliance with core water resource plan requirements through reference to existing state material (e.g., website pages, communiques, webinars). Requiring Basin states to report in this manner as well as implementing the actual work would add unnecessary administrative burden and divert limited resources away from on-ground delivery.

The proposed requirement for states to “*identify when critical human water needs can and cannot reasonably be supplied from regulated surface water resources*” is too simplistic and not cognisant of the full planning framework underpinning critical human water needs

NSW is in active, live discussions with towns vulnerable to town water supply and town water quality issues. Funding is available to regional towns under the Safe and Secure Water Program and the National Water Grid Fund to upgrade and install critical infrastructure required to improve town resilience to water security risks.

Given the active work underway between NSW and town water suppliers to seek solutions to these complex town water issues, documenting the state of play at a single point in time may not provide an accurate or helpful picture for future decision-making and may end up being fundamentally wrong or flawed as information and solutions come to light and progress. In addition, accessing water from a water source may only present part of the solution. For some towns, reconfiguring or installing new water supply infrastructure is the more appropriate solution than gaining access to more water.

NSW is already ensuring robust assumptions are made in planning for critical human water needs in extreme events

NSW is working on defining and setting minimum regulatory standards on water supply security for town water supply customers in regional NSW. These standards would expect service providers to complete effective strategic planning on options to deliver water services (including access to water). This includes negotiation between service providers and water resource managers on what access to existing and/or potential water sources might be required and available for the service provider to be able to deliver such service standards.

NSW recommends that any standard on critical human needs set out in the Basin Plan, or a broader national instrument, needs to be cognisant of, and support, the NSW approach to setting minimum regulatory standards on water supply security for town water customers.

Any new requirements need to provide sufficient flexibility to allow Basin states to meet these in the most efficient, streamlined way to suit the Basin states existing frameworks and initiatives without increasing administrative burden.

Existing NSW work on assessing climate change impacts on meeting critical human water needs – Minimum Inflows Project

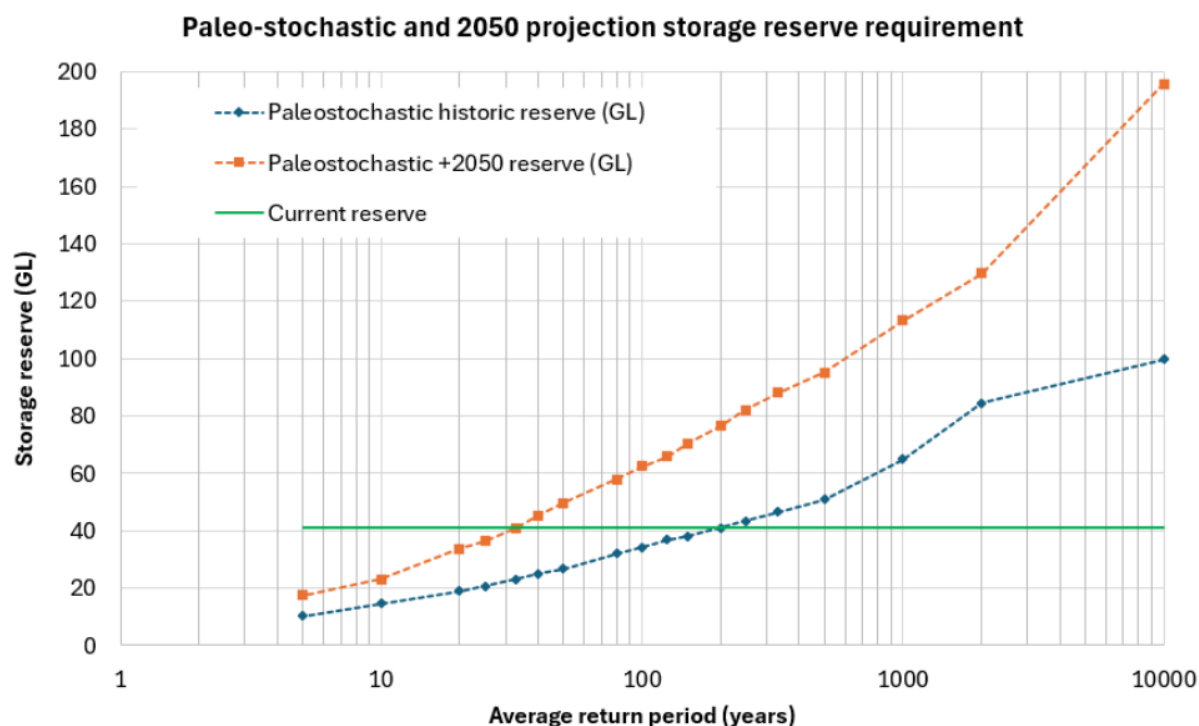
NSW is already assessing future risks for delivery of critical human water needs under a changing climate as part of our Minimum Inflows Project. The project will inform the minimum amount of water required to be set aside in storages to meet high priority needs under different climate

scenarios. It is based on the latest scientific methods and data such as NARClIM 2.0 modelling and paleoclimate data.

This work represents a significant investment from NSW to provide:

- more certainty to water users by improving the capacity of water sharing plans to manage water availability under a more variable and changing climate, and
- an improved understanding of the level of security for high priority users and the likelihood of the Extreme Events Policy being triggered.

This project does however highlight the challenges of meeting critical human water needs obligations as well as other existing Basin Plan obligations that require Basin states to secure or protect water for other non-critical human water needs in a changing climate where the overall water balance may be changed. The Authority may wish to consider how flexibility could be accommodated in the Basin Plan to enable Basin Government's to implement priority programs in their State in the future such as the Minimum Inflows Project whilst meeting all other Basin Plan requirements.



Source: Technical Review Method – Minimum Inflows (NSW DCCEEW, 2026) - Paleo-stochastic and 2050 trajectory paleo-stochastic reserve requirements for a range of event frequencies

Basin states must retain control of decisions made to state reserve policies

Decisions that directly affect a Basin state's dam storages must be maintained within the control of the Basin state. Assessing and managing impacts of future water security risks and weighing up the need to secure future water needs with those water needs of the present is their responsibility.

Basin state managers should have the utmost autonomy to appropriately advise the optimal course of action for Ministerial and Cabinet consideration.

Recommendation 9: Environmental water delivery should be maximised and appropriate and proportionate protections for planned environmental water are required

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to 'Chapter 4 Maximising the benefits of water for the environment' of the Basin Plan Review Discussion Paper.

Water for the environment is an essential investment in the long-term health of rivers, landscapes and communities. It ensures ecosystems stay resilient, supports cultural values, and underpins the environmental services that human communities depend on. The NSW environmental water manager plays a central role in safeguarding river and wetland health by managing the state's environmental water portfolio, ensuring legal compliance, maintaining transparent accounting, coordinating with operational partners, and supporting evidence-based ecological outcomes. Environmental watering activities have also contributed to economic, cultural and social benefits.

NSW welcomes the streamlined reform for environmental water planning and policy requirements.

NSW perspectives on proposed improved system-scale planning and prioritisation to support adaptive decision making

Requiring system scale coordination

NSW recognises that achieving ecological outcomes - particularly native fish outcomes that depend on system-scale connectivity and life-history timing - requires strong coordination across valleys and jurisdictions. Improved coordination for the northern and southern Basin is supported. However, NSW does not support adding new system-scale delivery plans as this creates a risk of complexity, inflexibility and increasing regulatory burden. If this was to progress, system scale plans need to replace, rather than add to existing planning instruments, and should not introduce new statutory obligations or reporting requirements.

System-scale coordination already exists under the NBEWG and the SCBEWC, and it is unclear what additional roles and procedures would need to be taken by these Committees to improve coordination and effectively deliver the change that the Authority is trying to affect.

NSW emphasises that while multi-year and cross-catchment planning is important and something we expect to continue developing, it may not always be appropriate to do this specifically at the

northern and southern-Basin scales. For example, scenario-based delivery plans for the northern Basin are likely unachievable due to the variables involved. NSW requires the flexibility to undertake multi-year planning at ecologically meaningful spatial and temporal scales that are operationally achievable for different systems.

NSW recommends that sub-Basin objectives (set over multi-years/longer timeframes) for states and the Commonwealth Environmental Water Holder (CEWH) to meet may be a more pragmatic solution. This could be complemented by ongoing investment in practical planning and operational tools such as river system modelling, scenario testing tools and flow forecasting capabilities.

Strengthening prioritisation and making climate adaptation explicit

The Discussion Paper outlines several proposed changes to the Basin-wide environmental watering strategy and long-term watering plans. NSW is generally supportive of the changes proposed, however suggests some improvements to ensure it is practical.

NSW recommends the Basin-Wide Environmental Strategy should remain high level, not prescriptive. Further prescription and/or details should be included in Long-term watering plans prepared by Basin states. Note these are published as ‘Long-term water plans’ in NSW.

NSW recommends that understanding vulnerability of different environmental assets and ecosystem functions under different climate futures is a key first step to climate adaptation.

NSW is making progress in this area but more work is required. While the prioritisation of environmental watering activities remains clear, there is less clarity about the vulnerability of each system to climate change, the likely future site conditions, and the potential management responses required. The 2026 update of NSW Long-term water plans will include an assessment of the vulnerability of environmental water requirements under a range of climate futures, together with an initial identification of potential mitigation measures.

Making climate adaptation explicit in the Basin-wide environmental watering strategy is appropriate, however, we recommend focusing on understanding vulnerabilities and investigating both mitigation and adaptation options.

NSW recommends climate-ready objectives should remain dynamic and responsive across a range of conditions (wet, dry, average) and climate futures and should include pragmatic guardrails to safeguard against normalising of lowered expected outcomes.

NSW supports an approach that balances realism with ambition. Climate-ready objectives should reflect an understanding of system vulnerability and ecological limits, while retaining the ability to shift with opportunities that arise during wetter or more favourable periods. The aim is not to recalibrate expectations downward, but to establish objectives that remain ecologically relevant,

adaptive across a range of climate futures, and clear about the circumstances under which they can be met.



In developing climate-ready objectives in the Basin-wide environmental watering strategy, NSW cautions against an over-emphasis on revising objectives without clear guardrails, as this risks progressively weakening environmental goals and reducing accountability over time. While ecological outcomes will fluctuate due to natural variability and climate change, objectives should not embed a permanently reduced level of ambition. Even in a drier future climate, objectives should remain dynamic across wet, dry and average years, while being transparent about real constraints—such as temperature increases or prolonged drought—that may limit the achievement of some outcomes in certain periods.

NSW supports prioritisation of environmental assets and ecosystem function under different climate and inflow scenarios in the Basin-wide environmental watering strategy and note that prioritisation by water availability is already captured in NSW Long-term water plans and annual watering planning.

NSW recommends no major changes to environmental watering requirements in Long-term water plans to accommodate drier climates.

NSW notes that the watering requirements of water-dependent species and ecosystems do not fundamentally change under a drier climate. Species do not need less water simply because conditions become drier; rather, if their needs cannot be met, they become increasingly at risk. For this reason, while NSW supports developing climate-ready objectives, we do not support major changes to environmental watering requirements in Long-term water plans.

NSW recommends additional Basin-state research and monitoring to refine environmental watering requirements for species-specific requirements under wet and dry years.

NSW environmental watering requirements already incorporate variation in watering requirements' natural wet-dry cycles, and these guide management under different water availability conditions. However, knowledge of the precise watering needs of species under wet vs dry sequences of years is still limited. NSW supports further Basin-state led work to refine environmental watering requirements across a range of water-availability conditions, but this will need to be developed progressively through research, monitoring and adaptive management.

NSW recommends that obligations to identify priority environmental assets and ecosystem functions and associated objectives and targets be retained in Long-term watering plans, not in the Basin-Wide Environmental Strategy.

NSW wishes to clarify in the initial description of Long-term watering plans in the discussion paper (that is, what they are), that Long-term watering plans also identify priority environmental assets and ecosystem functions in catchments; and define objectives and targets for those assets and functions (as per existing requirements under s8.19 of the *Basin Plan 2012*). The current description of Long-term watering plans in the Discussion paper only refers to obligations for environmental watering requirements, and by omission, suggests that only the Basin-Wide Environmental Strategy sets objectives and targets.

Reducing duplication and regulatory burden of planning instruments

NSW supports removing requirements for the Authority to prepare annual environmental water priorities as annual planning functions are effectively and efficiently met by Basin states and the CEWH.

NSW supports the retention of fixed five-year timeframes for updating Long-term watering plans, as regular review cycles provide certainty, enable effective resourcing, and support deliverability given the scale and complexity of updates. Fixed intervals also ensure plans can systematically incorporate improved knowledge, including climate change adaptation, to remain robust and fit for purpose.

NSW also supports the inclusion of limited flexibility within this framework, including the ability to extend review timeframes or agree to adjusted review periods where this is mutually agreed. This approach maintains the benefits of fixed review cycles while allowing pragmatic responses to complexity, emerging science, or other unforeseen circumstances.

NSW perspectives on proposed improved coordination of environmental water delivery

Continued efforts to identify and overcome constraints to delivering environmental water

NSW Long-term watering plans already identify the operational constraints that limit environmental water delivery and the achievement of ecological objectives, targets, and environmental watering requirements. The key challenge is securing the investment, policy reform, and inter-jurisdictional commitment needed to address and remove these constraints. Lessons learnt from the existing SDLAM programs should be integrated into the next planning phase of the Basin Plan.

Strengthening protections of held environmental water as it moves through the system

NSW currently protects held environmental water as it moves through different systems including:

- North/South Connectivity Trial
- Pre-requisite policy measures in the Murray and Murrumbidgee
- Active management in northern unregulated systems.

Active management and protection of held environmental water as it moves through the system is highly resource intensive and, in some cases, requires further regulation amendments to implement.

NSW supports increasing the level of protection of held environmental water as it moves through the system provided any additional activities beyond the existing scope of what NSW has committed to, is fully funded, both development and ongoing operation costs, by the Australian Government.

NSW recommends that prioritisation to increase protections is completed in collaboration between the Authority and NSW to ensure the most effective use of funding. In NSW, some areas have already been assessed as low risk and not needing protection of held environmental water as it moves through the system. For example, active management does not occur in the Intersecting Streams because risk of extraction is considered low due to the very few licence holders in the water source.

For clarity, NSW does not support changing the licence characteristics of licensed (held) environmental water comparative to other licence holders of the same licence category or extending protections under the existing rules for 'no net reduction of planned environmental water' to include held (licensed) environmental water. Any changes to this effect would go against the fundamental premise of NSW's licensing framework and would likely have unintended consequences for water trading markets and allocations.

Improved forecasting, scenario testing and other management tools for river operators and environmental water holders

This is a major gap and area of underinvestment which limits our ability to maximise the effectiveness of environmental water delivery (and other water delivery to contribute to environmental outcomes). These tools are critical to coordinating environmental water delivery across valleys and the northern/southern basis, to deliver flows under relaxed constraints in the future, and being able to test delivery scenarios to support adaptation to climate change etc. Any tools or projects should be co-designed, developed and socialised with end-users, including environmental water managers, holders and river operators, to maximise utility and increase the likelihood of practical adoption.

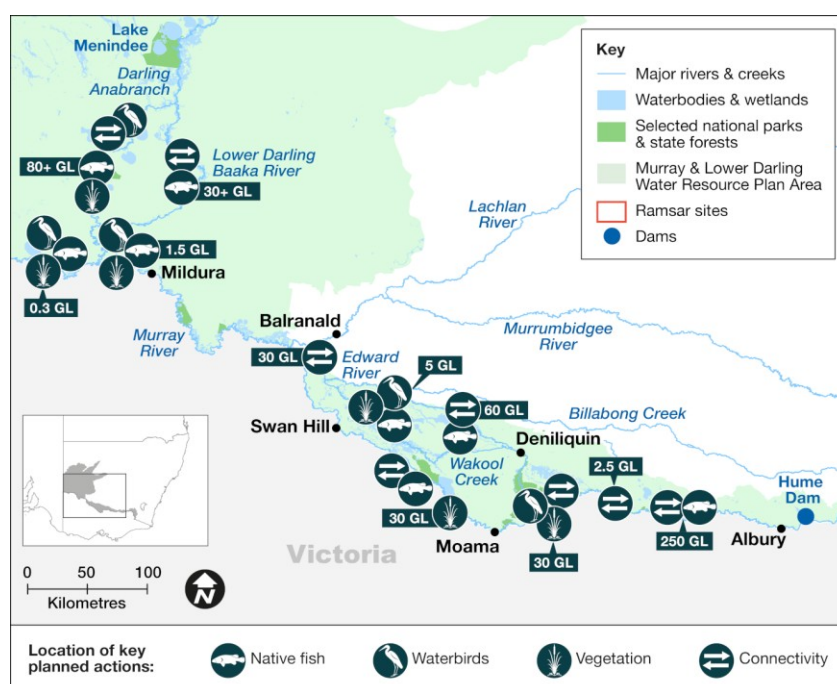
For tools or projects that involve modelling, we recommend a thorough assessment of the adequacy of underpinning primary datasets. This may lead to a program of strategic monitoring and research to fill key information gaps prior to model creation. Clear and recurrently funded stewardship arrangements are also essential to ensure tools remain fit-for-purpose over time.

While flow forecasting and decision-support tools are important, ongoing investment in monitoring and evaluation of on-ground environmental outcomes is critical to adaptive management and achieving the full environmental potential of recovered environmental water. Priorities should include additions to the gauge network; improved accuracy of river flow monitoring at key locations; expanded spatial and temporal resolution of monitoring in critical and currently under-resourced areas; and timely sharing of monitoring information to better inform environmental water planning and delivery decision-making.

Publicly sharing information on environmental flows, where environmental water is delivered and what it achieves

NSW is committed to publicly sharing information on environmental flows, where it is delivered and the outcomes it has achieved through reporting on the NSW Government website, and through Basin Plan Schedule 12 reporting to the Authority.

For each catchment, environmental water use for the



year to date can be accessed via NSW water for the [environment website](#). Environmental water use is regularly updated as the year progresses.

Environmental outcomes achieved from environmental use are publicly reported every year on the [NSW water for the environment website](#). These reports showcase the ecological outcomes achieved under the water availability and landscape conditions of the year.

[NSW report annually](#) to the Authority on environmental water use under the Basin Plan Schedule 12 Matter 9.3.

Every 5 years NSW report on the achievement of environmental outcomes at the asset scale through [Basin Plan Schedule 12 Matter 8 reporting](#). Supporting technical reports are available on the water for the [environment website](#).

Enhancement of First Nations partnerships in environmental water management

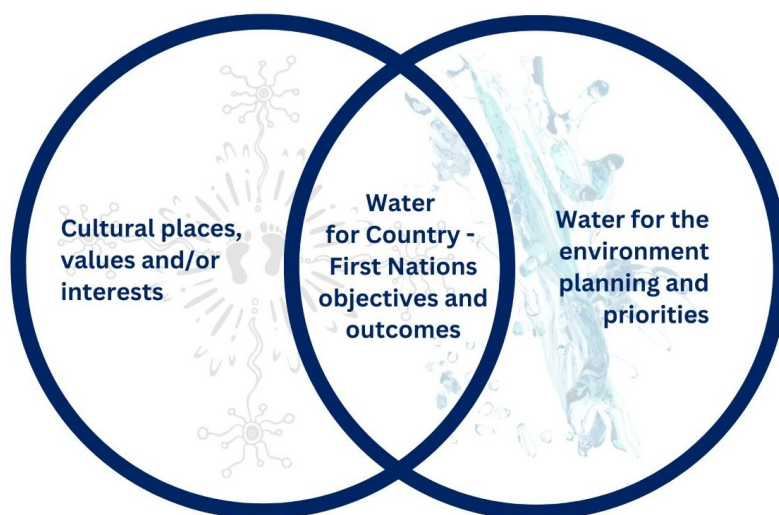
NSW works with Aboriginal people across the Murray–Darling Basin to support participation in environmental water management, including annual environmental water planning and the implementation, review and update of Long-term watering plans.

NSW's focus is on establishing culturally appropriate processes and planning pathways that enable Aboriginal communities to express their priorities and have them considered within environmental water planning and decision-making.

Ongoing engagement supports Aboriginal-led input into planning documents and processes that contribute to water being delivered on

Country, where operationally feasible and consistent with broader environmental objectives.

Please also refer to recommendation 4 of this Submission that responds to proposed improvements identified.



NSW perspectives on proposed monitoring of outcomes more effectively to inform adaptive decision-making

The use of Long-term watering plans to identify assets and functions vulnerable to climate change

NSW is making progress in understanding vulnerability of different environmental assets and ecosystem functions under different climate futures. The 2026 update of NSW Long-term water plans will include an assessment of the vulnerability of environmental water requirements under a range of climate futures, together with an initial identification of potential mitigation measures.

Improving risk monitoring and response

NSW supports the Authority improving risk monitoring and response between 10-yearly Basin Plan reviews using the Basin Watering Strategy framework to identify risks and the associated ecological thresholds. However, the Basin Watering Strategy is not the mechanism for reporting. NSW suggests that reporting is better placed in the Schedule 12 of matters, for example, Matter 2 and/or 4.

NSW supports improving clarity to better link monitoring, evaluation and its reporting needs to be undertaken within the conceptual framework of the program logic.

Improve consistency in how environmental water requirement inform 10-yearly SDL assessments and Basin Plan outcomes.

NSW supports exploring approaches to improve the consistency of environmental water requirements and objective indicators across jurisdictions, and methods that standardise environmental water requirements and objective indicator outcomes for consistency in assessing Basin Plan environmental outcomes.

NSW perspectives in proposed alignment of watering activities with land and water management

NSW supports better integration of land and water management to improve environmental outcomes and as described earlier in this Submission, is a priority area for NSW. This integration aligns strongly to what we hear from Aboriginal stakeholders. Coordinated action can also significantly enhance the effectiveness of environmental water.

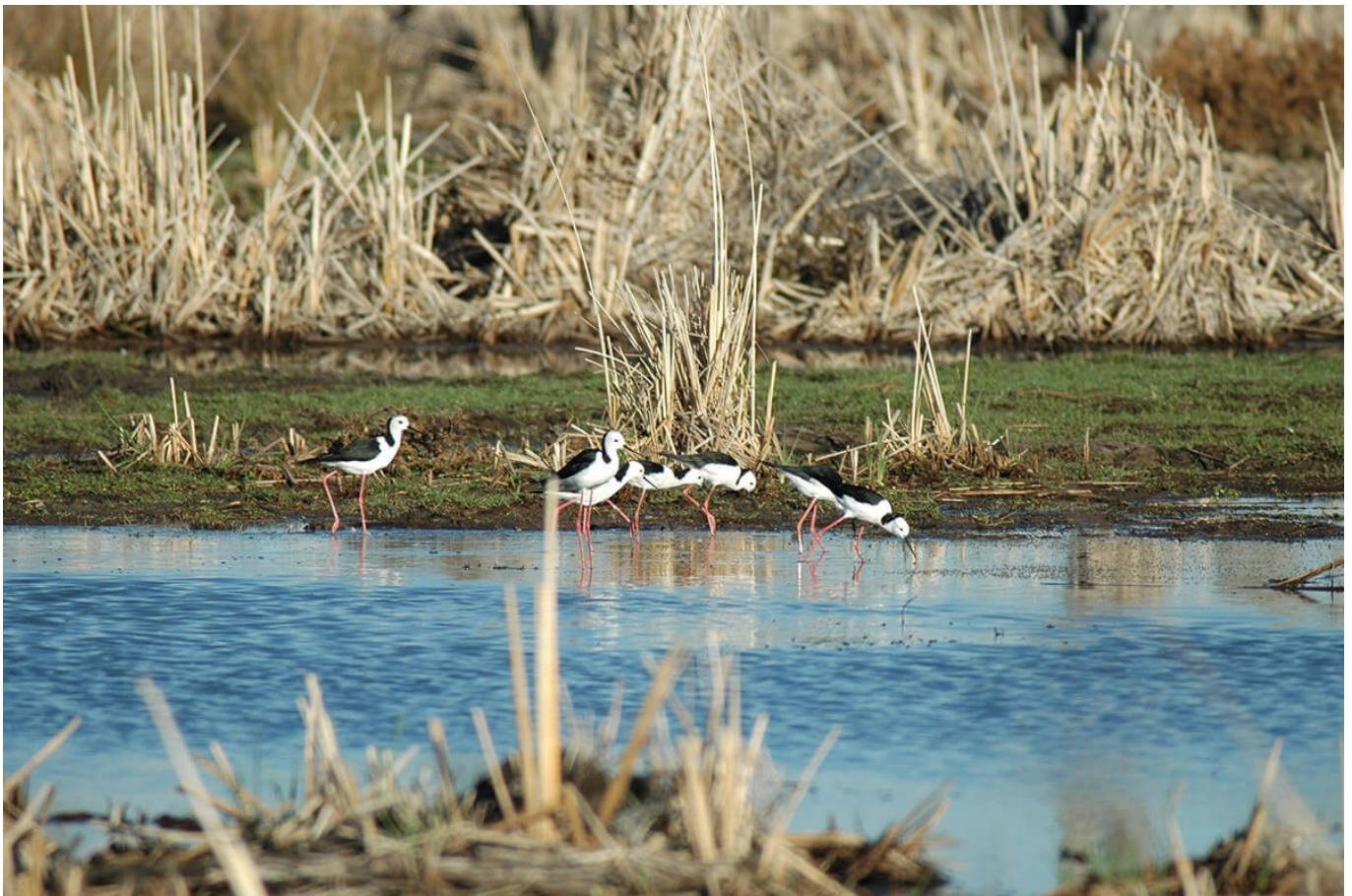
However, prioritising environmental water delivery in areas where complementary land management actions already exist is problematic. This risks making environmental water delivery conditional on land-side investment, potentially disadvantaging degraded or under-resourced catchments and local councils where water may be most needed to support recovery and system-scale ecological

function. Many Basin outcomes depend on connectivity across whole river systems, not just “investment-ready” sites.

While the Authority notes that catchment management is a Basin State responsibility, land management is also a local and regional responsibility, including for Aboriginal organisations, local groups and authorities and communities. Using environmental water delivery to drive land management investment risks inadvertent outcomes and blurring governance roles and accountability.

A more effective approach would be the reverse: retain environmental water prioritisation based on ecological and cultural need, while developing a Basin-wide or jurisdictional land management investment strategy that targets funding to areas where land management is most critical to support environmental water outcomes. This could potentially have less inadvertent outcomes.

There is also a risk that embedding this prioritisation in the Basin-wide Environmental Watering Strategy would constrain the flexibility of Long-term watering plans and state-led annual planning, limiting the ability to respond to local conditions, emerging risks and operational realities.



Recommendation 10: Improvements to regulatory design will enhance efficiency and effectiveness

Relevant sections of the Basin Plan Review Discussion Paper

This section provides a NSW response to ‘Chapter 10 Basin Plan Regulatory Design’ (sections 10.4, 10.5, 10.6 and 10.7) of the Basin Plan Review Discussion Paper which focuses on the issues relating to regulatory improvements.

Effective regulatory design is central to ensuring that water management frameworks remain credible, adaptable, and capable of delivering social, economic, cultural, and environmental outcomes. As a general principle, NSW supports more efficient and streamlined provisions, removing duplication, improving clarity and allowing for adaptation and continuous improvement over time with information and data requests clearly linked to an intended and necessary purpose, and do not go beyond the scope of what is required.

Regulatory burden on implementation agencies and their customers must be considered throughout the Basin Plan Review process given the already complicated multi-layered regulatory framework that guides water planning and management in the Basin.

SDL accounting improvements

NSW is generally supportive of improvements to the SDL accounting and reporting framework. We support clarifications to unclear terms to ensure consistent annual reporting, provided that jurisdictions are consulted on proposed definitions and agreement is reached and we support consistency in what is monitored and reported on across the whole Basin.

As recent examples regarding interpretation of parts of Chapter 10 in the *Basin Plan 2012*, there has been confusion and misinterpretation between rules for water resource plan requirements (under s10.11 of the *Basin Plan 2012*) and those that set out compliance requirements (under s6.12 and s6.12C of the *Basin Plan 2012*). There has also been confusion about the annual permitted take method (under s10.12) and timeframes for ‘make good actions’ to bring SDLs into compliance. NSW would welcome the opportunity to work with the Authority to resolve these problems.

NSW recommends providing greater flexibility to meet SDL reporting timeframes that acknowledges the sequencing and interstate interdependencies for modelling delivery. NSW works hard to meet the required timeframes but has historically experienced delays as we rely on other agencies to finalise and share their modelling results prior to being able to finalise our models.

NSW recommends providing reporting data in a format that most efficiently supports export of data from NSW systems and that supports the multi-use of that data. We do not support the use of

prescriptive templates for providing non-mandatory data or providing data that does not have a clear intended purpose and use given the associated resourcing impost.

Water trading rules

NSW is generally supportive of refinements to the Basin Plan trading rules, noting that significant water market reform activities remain underway. We support proposed refinements to:

1. ensure the Basin Plan water trade rules continue to enable environmental water delivery through exemptions
2. clarify that trade restrictions can be made to protect First Nations Cultural heritage
3. clarify that water deliveries under water entitlement arrangements are water trades.

NSW also recommends additional **optional** trade restrictions be permitted by Basin states if:

- the water user is not compliant with the Basin state's required metering or measurement rules for water trading, or
- the trading market needs to be temporarily closed for a short period for administrative purposes.

The former proposed optional restriction would accommodate existing trade restrictions imposed by NSW on water users that are not compliant with the non-urban metering rules and also future proofs for any trade restrictions linked to the requirement to have measurement devices for floodplain harvesting licence holders.

The latter restriction for the temporary closure of the water trading market ensures that administrative workloads can be smoothed at the end of the water year to ensure a well-functioning water trade market.

Further detail is required on proposed refinements to support compliance by the Inspector-General of Water Compliance, especially notification of trade restrictions and clarification of how water trading rules apply to infrastructure operators and approval authorities before NSW can express a view on whether the change is supported.

NSW recommends that the Authority review the existing reporting requirements and timeframes with the purpose of ensuring they align with what is actually needed. NSW would like to avoid any unnecessary exchange of information from one agency to another within timescales that do not accord with mitigating a particular risk. For example, Basin states must notify the Inspector-General of Water Compliance of trade restrictions upon commencement of the provision or within 30 days of the Basin Plan provision coming into effect, if the restriction already existed. If this information is only assessed and reported on by the Inspector-General of Water Compliance on a yearly basis than it would be logical that Basin states should only be required to report annually.

Select Water Source Type

Regulated Rivers

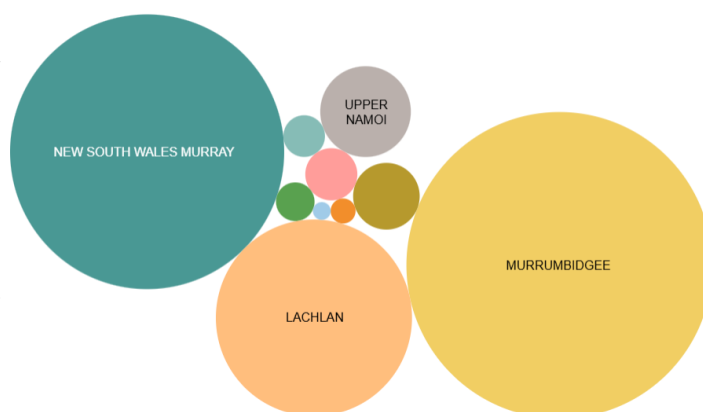
Last N Days

30

Weighted Average Price* in the last 30 Days (exclude Supplementary Water)

Volume activity for Temporary water trades* in the last 30 Days

Seller Water Source (short name)	Weighted Average Price (\$/ML)	Entitlement Trade (\$/Share) for Selected Licences**
GWYDIR	310	8,500
HUNTER	81	
LACHLAN	226	
LOWER DARLING	474	
LOWER NAMOI	222	9,000
MACQUARIE AND CUDGEGONG	282	3,700
MURRUMBIDGEE	463	3,250
NEW SOUTH WALES MURRAY	365	3,376
NSW BORDER RIVERS	328	
UPPER NAMOI	248	10,000



Source: NSW DCCEEW website – [NSW Trade Dashboard](#) – snapshot from 7 April 2026.

Basin Plan reporting

The Discussion Paper outlines a number of options to improve monitoring, evaluation and reporting to support compliance, outcomes assessment, First Nations participation and adaptive management. NSW is supportive of the following:

- consolidating reviews into 5-yearly cycles and ceasing low-value annual reports.
- strengthening linkages among local, regional and Basin-scale reporting underpinned by a theory of change and program logic.
- improving access to information and ensuring that Basin Plan information is clear, useful and supports adaptive decision-making by governments, communities including First Nations peoples and industry.
- the Authority sharing information provided by Basin states to the Inspector-General of Water Compliance to support the Regulator conducting risk-based oversight and compliance.

NSW is supportive in-principle of the 2 options presented to support First Nations objectives and outcomes in the monitoring, evaluation and reporting framework. However, our ability to meaningfully support these activities is currently constrained by the early stage of relationship-building and policy development, compounded by the lack of available funding for monitoring and evaluation activities.

Attachment A – Summary of positions on options presented in the Discussion Paper

Table 4 Issue: An initial assessment of sustainable diversion limits (SDLs) (Chapter 3)

Options	NSW Government position
The initial SDL assessments for surface water have identified 4 priority issues requiring action: river connectivity in the northern Basin, end-of-system outcomes, floodplain and wetland health, and native fish decline.	Support in part. NSW seeks to work with the Authority to sharpen the initial SDL assessments to ensure they are accurate, defensible and can be used as a sufficient basis to make policy and management decisions for these surface water areas. All options for maximising environmental water delivery and all local and regional interventions that could improve ecological outcomes in at-risk SDL units should be exhausted before decreasing SDLs and permanently reducing water access for consumptive and business use, which should only be adopted where there are no viable alternatives. This includes extending timeframes and Australian Government funding for delivering constraints projects. NSW does not support water buybacks.
The initial SDL assessments for groundwater show more work is needed in 3 groundwater SDL units, to determine whether the SDL reflects an environmentally sustainable level of take. These are the Upper Namoi Alluvium, Lower Namoi Alluvium and the Lower Gwydir Alluvium.	Support in part. NSW seeks to work with the Authority to sharpen the initial SDL assessments to ensure they are accurate, defensible and can be used as a sufficient basis to make policy and management decisions for these groundwater sources. Refinement of numerical models and other analytical tools to assess the cause of water declines and identify options to manage risks, consultation with stakeholders on these options and support for development of a State-led protocol for managing groundwater declines are recommended.

Table 5 Issue: Maximising the benefits of water for the environment (Chapter 4)

Options	NSW Government position
Reduce duplication and inefficiency in preparing annual environmental watering priorities and long-term watering plans.	Support. The Australian Government and States will be required to work together to deliver real improvements to the process.
Improve the Basin-wide environmental watering strategy to support strategic planning and transparent prioritisation of the environmental water portfolio.	Support. The Basin-Wide Environmental Strategy should remain high level, not prescriptive.
Make adaptation explicit in environmental water planning. Require long-term watering plans to identify vulnerable environmental outcomes and transitioning ecosystems, and improve knowledge sharing through the environmental watering plans.	Support. Understanding vulnerability of different environmental assets and ecosystem functions under different climate futures is a key first step to climate adaptation.
Ensure environmental water is transparently accounted for and protected as it moves through the system	Support in part. Increasing protections of held environmental water as it moves through the system is supported provided full cost-recovery for both development and ongoing implementation is funded by the Australian Government.
Invest in coordinated and transparent environmental water delivery and outcomes reporting.	Support.
Strengthen First Nations peoples' involvement in planning, delivery and monitoring of water for the environment to deliver improved environment outcomes, and support Cultural, spiritual and community co-benefits.	Support. This is consistent with the sentiment in the NSW Aboriginal Strategy which commits us 'to continuing to work with Aboriginal peoples in decision making about management of environmental water, including through the department's Environmental Water Advisory Groups.'

Options	NSW Government position
Embed First Nations knowledge. Integrate First Nations knowledge into monitoring, evaluation and reporting processes.	Support. The availability of funding will impact the extent to which this can be achieved.
Enable environmental water holders to prioritise environmental watering in areas where land and water management actions are coordinated, where appropriate.	Not supported. Environmental water prioritisation should be based on ecological and cultural need. Making environmental water delivery conditional on land-side investment, potentially disadvantages degraded or under-resourced catchments and local councils where water may be most needed to support recovery and system-scale ecological function. Funding should be targeted to areas where land management is most critical to support environmental water outcomes.

Table 6 Issue: Improving river connectivity in the northern Basin (Chapter 5)

Options	NSW Government position
Include objectives and outcomes in the Basin Plan that specifically support end-of-system connectivity in the northern Basin.	Support in part. NSW supports end-of-system connectivity outcomes, however, does not support establishing flow-based connectivity targets in the Basin Plan as this pre-empts the outcomes of NSW's Connectivity Program and creates an expectation that connectivity can be achieved 100% of the time, which historical records demonstrate does not happen in a natural system.
Improve environmental water management, coordination and planning in the northern Basin.	Support in part. This should not however be achieved through legislating the role of various governance groups in the Basin Plan.

Options	NSW Government position
NSW improves river connectivity across connected catchments of the northern basin.	Support. NSW is already committed to improving connectivity within NSW to protect downstream critical needs and achieve improved environmental outcomes. NSW continues to explore additional actions that can be taken upstream within NSW to improve flows into the Barwon-Darling including delivering water from upstream storages at strategic times to help improve connectivity and ensure water is available for critical human and environmental needs. We also note efforts have been and continue to be made to improve river connectivity through to the Southern Basin. The role of the Basin Plan is to ensure connectivity across state jurisdictions. Prescription of how Basin states manage river connectivity within their borders should be left to Basin states.

Table 7 Issue: Improving floodplain and wetland health (Chapter 6)

Options	NSW Government position
Continue the New South Wales' Murrumbidgee Reconnecting River Country program and extend the Gwydir Reconnecting Watercourse Country program beyond December 2026.	Support. NSW considers the focus on floodplain and wetland reconnection as essential to achieving Basin Plan outcomes. Australian Government funding will be necessary for these projects to continue.

Options	NSW Government position
Take practical and incremental steps to increase environmental flows in priority areas for the Goulburn and Murray, developed in consultation with, and supported by, local communities and landholders.	Support in part. NSW supports delivery of constraints relaxation in the Murray and acknowledges that this needs to be done in consultation with local communities, Aboriginal Peoples, land managers and landholders. However, incremental increases in overbank flows are not possible in practice due to current operational, policy and physical constraints. Future expectations for constraints relaxation needs to be realistic about timeframes, funding and social licence. Strong alignment between Basin scale priorities and regional delivery capability will be critical.

Table 8 Issue: Responding to native fish decline (Chapter 7)

Options	NSW Government position
Consider a targeted package to restore native fish in priority locations in the Basin that may include: • Address barriers to fish passage and other hazards like irrigation diversion pumps. • Ensure ongoing maintenance of existing fishways, particularly on the River Murray. • Ensure there are multi-pronged approaches to manage invasive species such as carp. • Invest in stocking, reintroduction and targeted recovery programs for rare and threatened species. • Identify priority instream and riparian habitat restoration areas to support native fish recovery.	Support. Additional suggestions for inclusion in a targeted package are contained in recommendation 7, noting that flexibility to tailor actions to local ecological conditions and community priorities will improve outcomes and investment efficiency.

Table 9 Issue: Managing water quality (Chapter 8)

Options	NSW Government position
Improve the Basin Plan water quality management plan (Chapter 9 of the Basin Plan) by strengthening water quality objectives and targets.	Support. Existing Basin Plan rules to include measures to meet water quality objectives should be retained, where practical and cost-effective to do so including land management measures. Improving existing water quality objectives and targets by removing duplication, streamlining and consolidating in a single instrument is supported.
Ensure Basin governments work together to manage Basin water quality hotspots by tackling the root causes of poor water quality and strengthen Basin governments' joint capacity for preventative action and early intervention.	Support in part. More proactive, coordinated and preventative approaches to water quality management are required. Land use and management practices has a significant impact on water quality, which can be improved through integrated catchment management. Catchment scale interventions in high priority areas will be more effective than extremely large identified hot spot areas. Such interventions, delivered in partnership with landholders, are essential to addressing underlying causes of water quality decline and building long-term resilience.
Develop opportunities for First Nations peoples to participate and contribute their science and knowledges to understanding water quality, including through monitoring programs.	Support. Creating meaningful opportunities for First Nations people to contribute their knowledge and science will require targeted investment in culturally appropriate engagement, and sustained support to ensure participation is informed, supported and effective.

Table 10 Issue: Water infrastructure and critical human water needs (Chapter 9)

Options	NSW Government position
Modernise water infrastructure across the Basin to reduce the risk of asset failure and safety risks, and to deliver on a broader range of values and interests, including improved Basin Plan outcomes.	Support. NSW is however constrained in its contributions to modernise infrastructure under the Joint Programs, noting that NSW contributions are determined by the IPART.
Consider minimum water resource plan requirements for state-based extreme event water planning to ensure adequate consultation processes and that planning is underpinned by robust climate assumptions.	Unclear what is being proposed. NSW is already undertaking significant work to meet critical human water needs through: • extensive community consultation • assessment of climate change on current dam reserves (Minimum Inflows Project) • working with local water utilities to ensure planning consistency to meet critical human water needs into the future. It is unclear what the Authority is seeking a commitment to. Any new requirements would need sufficient flexibility to allow Basin states to meet these requirements in the most efficient, streamlined way to suit the Basin states existing frameworks and initiatives without increasing administrative burden.

Table 11 Issue: Basin Plan regulatory design (Chapter 10)

Options	NSW Government position
Consider ways to reform WRPs by focusing the requirements on what matters most or shift away from accreditation to oversight of Basin states.	Support. The NSW water management framework satisfies most water resource plan requirements. A more efficient and effective water resource plan framework is required so efforts are not duplicated, and efforts are not compounded by having to audit 2 instruments with the same content.

Options	NSW Government position
Improve SDL accounting and compliance including clarifying definitions and improving consistency and knowledge.	Support. NSW would like to work with the Authority to resolve confusion and misinterpretation of existing Basin Plan rules relating to compliance, timeframes and definitions. Reporting requirements must be efficient for the State and must have a clear intended purpose.
Refine water trading rules to improve how exemptions for environmental water delivery work, support compliance and align with broader water market reforms.	Support. NSW would like additional optional permissible restrictions on water trading to include where metering or measurement is required by the Basin state for trading or the trading market needs to be temporarily closed for a short period for administrative purposes.
Streamline Basin Plan reporting to support compliance, outcomes assessment, First Nations participation and adaptive management.	Support. Funding from the Australian Government is required to support these activities being delivered in a meaningful way.

Table 12 Issue: Improving science and knowledge to inform Basin water management (Chapter 11)

Options	NSW Government position
Build understanding of the complexities and interactions of environmental, economic, social and Cultural outcomes in the Basin through sustained research capacity, community involvement, and a greater focus on science synthesis, collaboration and communication.	Support NSW supports a greater emphasis on appropriate monitoring and evaluation, rather than research, to ensure we are collecting the right information to make informed decisions. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.
Strengthen opportunities for First Nations peoples to contribute their science and knowledges.	Support. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.

Options	NSW Government position
Monitor water flows, availability and river connectivity, and how these interact with ecosystems and climate change, to ensure effective water planning and delivery across the Basin.	Support in part. Monitoring water quality is an important addition. A more consistent and considered approach across the whole basin is also required. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.
Enhance groundwater knowledge across the Basin.	Support. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.
Increase our knowledge on how native fish can be better protected at the Basin scale.	Support in part. Basin jurisdictions already have a reasonable idea of what is required and it is the implementation and monitoring of various identified actions that is lacking primarily due to insufficient budgets. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.
Improve understanding of water quality drivers and impacts to deliver a greater predictive capacity, so water managers can pre-empt events.	Support. Implementation of complementary catchment management activities to address a number of key factors/stressors is equally as important. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.
Address knowledge gaps preventing more targeted action shown by the initial SDL assessments relating to groundwater, environmental condition and non-water drivers.	Support. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.

Options	NSW Government position
Improve methods for SDL accounting to more accurately estimate water take and future water demands.	Support NSW suggests that improvement is needed to better measure take (consistent with the metering requirements) and have less reliance on estimates or modelled estimates. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.
Improve modelling and predictive capacity by continuing collaborative development of models and forward-facing tools with Basin governments.	Support. NSW suggests prioritising next generation modelling as the models currently relied upon have major deficiencies and are fundamentally policy and management tools. Funding will be required from the Authority or the Australian Government to undertake work in addition to existing NSW priorities and efforts.