Australian Government

Murray–Darling Basin Authority

2026 Murray–Darling Basin Plan Review

What we heard report

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Cover image: Attendees at the 2026 MDBA Basin Leadership Summit

Acknowledgement of First Nations and their people

We offer respect to the Traditional Custodians of Country in the Murray–Darling Basin and to their Nations. We pay our respects to Elders past and present.

We acknowledge First Nations peoples' enduring deep Cultural, social, environmental, spiritual and economic connection to their lands and waters.

First Nations peoples have been looking after Country in sophisticated ways for more than 65,000 years and continue to do so on behalf of their Nations and people.

We have heard many First Nations people express that when the lands and waters of their Nations are not healthy, the people are unwell, and the ability to practise Culture and look after Country is impacted. This includes being able to swim in the local waterways and harvest traditional foods and resources.

First Nations peoples see waterways as living entities and live by the principle that everything is connected. Since colonisation, land, water and people have been separated. This goes against the way First Nations peoples see Country.

First Nations peoples of the Basin have been excluded from decision-making processes about water. Water management laws have contributed to disparity and dispossession, as they were developed without recognising First Nations' sovereignty. We acknowledge that this causes recurring distress.

A morning at Merbein Common, Vic, listening to the Friends of Merbein Common.

Foreword

I grew up in Armidale, near where the waters of the divide start to flow west into the Murray–Darling Basin, and every time I travel anywhere across this amazing, interconnected river system, I feel like it's my home.

The introduction of the Basin Plan 14 years ago marked a significant acceleration in a water reform journey that was already underway. Triggered by the Millennium drought and broad acceptance that we were taking too much from the Basin's rivers, the Plan represents a political compact between the 6 Basin governments. They agreed to set a water recovery target to rebalance how water was shared. We now have an $11 billion Commonwealth environmental water portfolio.

This first ever review of the Basin Plan is a once-in-a-decade opportunity to make change and maximise real world environmental, social, economic and cultural outcomes. The Basin Plan must be grounded in reality, backed by science and practical to implement. Water management is a shared endeavour. It needs the support of the Basin governments who together represent the more than 2.4-million people who live in this food bowl of ecological importance.

Over the 12 weeks of the consultation period, MDBA staff met with over 2,900 people, connected with more than 500 First Nations peoples and groups on Country, and visited almost 100 towns and regional centres across the Basin. The people we spoke to come from diverse landscapes, with different values and lived experiences. Their perspectives sit at the heart of this Review.

Many of those people made a submission following those conversations, either as an individual or on behalf of their community. In total, during the consultation period, we received nearly 2,500 submissions. Every single one has been read and considered in detail. Others told us what they thought standing by a riverbank or over a meal at the pub, and we've taken that on board as well.

Left: A quick pit stop in St George, Qld, before heading back out on the road for the BPR Discussion Paper consultation.

Right: MDBA Chief Executive Andrew McConville speaking to the attendees of the 2026 Basin Leadership Summit, encouraging them to share their views.

There were some clear areas of common ground: support for healthy rivers, better water quality, stronger links between land and water management, addressing constraints, improving native fish numbers and supporting healthy communities. Almost everyone agrees that water that has been recovered for the environment must be used well and that the value and impact of the Commonwealth's investment must be maximised.

There were also diverging and often passionate views. We heard the grief that First Nations peoples feel in watching the health of Water Country decline. We heard from farmers and small businesses that the Basin Plan has not worked and has destroyed communities and livelihoods. We were criticised for not telling the story of agriculture and we were also criticised for not showing the benefits that water for the environment has brought to the Basin.

Above all, we heard passion. Passion for healthy waterways, thriving communities and the shared endeavour of rivers, for generations. Everyone agrees that we have to keep working to ensure *Rivers, for generations*.

While it does not include each individual comment or recommendation, this report seeks to reflect the breadth of the feedback received and reflect the matters most consistently raised by Basin communities, First Nations peoples, governments, industry and environmental groups, local council and other stakeholders.

Submissions with permission to be shared are published on our website. These submissions have also been shared with the Department of Climate Change, Energy, the Environment and Water to inform the review of the Basin Plan's enabling legislation, the Water Act 2007 which is also currently underway.

Thanks to everyone who took the time to talk with us, write to us or send us a video. Your input is invaluable, and it will shape the work we do from here.

Andrew McConville
Chief Executive

Left: Making connections at the 2026 Basin Leadership Summit.

Above: Andrew McConville, MDBA Chief Executive, at the release of the Discussion Paper, Murray River, Albury, NSW.

Contents

Executive summary

Over the 12-week consultation period, we received around 2,500 submissions from a diverse range of groups and individuals from across the Basin, including community members, First Nations peoples and groups, agricultural and irrigation organisations, environmental groups, scientists, and all levels of government. The feedback provides a comprehensive and valuable evidence base to help inform the Basin Plan Review.

We had many conversations, and received submissions from people, about issues that largely sit outside the Basin Plan, including roles and responsibilities of Commonwealth agencies, concerns with state water management and the role of local councils. For completeness, we have reflected what we have heard in this report irrespective of whether it falls within the scope of the Basin Plan Review.

Following 14 years of implementation, there is broad agreement that it is time to step back and assess the outcomes of the Basin Plan.

Overall, people expressed strong interest in the future of the Basin and reinforced the importance of getting the balance right between environmental sustainability, productive agriculture, and community wellbeing. While views often differed, there was broad recognition of the Basin Plan's importance and a shared commitment to improving the effectiveness of the Plan.

This report reflects the full breadth of submissions received. Inclusion of a submission or quote does not constitute endorsement by the Authority. Submissions have not been fact checked and no guarantee of accuracy is made.

Areas where we saw alignment

There were several areas where we saw alignment of views through the consultation and engagement. These included maximising the benefits of water for the environment; addressing water quality and critical human water needs; responding to native fish decline; governance, transparency and accountability; and bringing land and water management closer together with a particular focus on locally led solutions.

Maximising environmental outcomes

There was strong support for maximising the positive impact and value of the effectiveness of the environmental water portfolio. This included consistent agreement on improving how we use water for the environment, including how it is planned, delivered and coordinated. Visibility of decision making and outcomes was also a common theme, as were coordination, monitoring and adaptive management. Individuals and groups consistently emphasised the need to maximise the benefits from the environmental water portfolio.

Water quality and critical human needs

Water quality and critical human water needs were strong themes across the submissions received. Individuals, groups and councils raised concerns about water quality risks and the urgent need to ensure reliable water for critical human needs and communities. We heard about the impacts of poor water quality on health and wellbeing. Some called for stronger, climate-robust rules in the Basin Plan to protect town water supplies during drought. Issues regarding ageing infrastructure including water treatment facilities and costs of repair and replacement were consistently raised. Water utilities want the Plan's framing to go beyond critical human water needs to include safe, secure and affordable water and wastewater services.

Native fish decline

Native fish were a central focus across submissions with contributors from research organisations, governments, industry, community groups and First Nations groups providing detailed input on the condition of fish populations and the drivers influencing outcomes.

We heard a lot about carp and other introduced species. There was broad agreement that action must be taken, and there is a strong willingness from local communities to get involved, particularly in projects addressing water quality and habitat restoration, or by using infrastructure to create refugia. There were mixed thoughts on the possible release of the carp herpes virus.

Governance, transparency and accountability

Many submissions called for clearer roles, improved coordination between jurisdictions, stronger accountability mechanisms, and greater transparency in decision-making, including by the Commonwealth Environmental Water Holder (the CEWH). Increased involvement of First Nations peoples in decision-making and management was a consistent theme.

Land and water management

There was broad agreement that land and water management needs to be better integrated, particularly in the context of maximising benefits of water for the environment. Land use, pest and weed control, riparian habitat, water quality, river operations and floodplain connectivity are interconnected parts of catchment condition. First Nations people and groups, natural resource management and landcare groups, landholders and industry organisations, all pointed to the opportunities to do things better, many noting that a considerable number of wetlands are on private land and require a partner approach.

ILLUSTRATED by ZAHRA ZAINAL

Areas where we saw divergence

Equally, there were areas of tension and divergence, particularly around future water recovery, addressing climate risks and whether or not options in the Discussion Paper went far enough to tackle climate change and increasing climate variability. We received many submissions from the irrigated agriculture sector and impacted communities that spoke of the painful and costly effects associated with water recovery to date and the lasting toll on their communities.

Recognition of irrigated agriculture and regional communities

Some people and groups said the Discussion Paper did not adequately acknowledge the critical role of irrigated agriculture and regional industries in the Basin, colloquially coined 'the forgotten chapter.' There was support for ensuring that future policy settings, especially in relation to sustainable diversion limits and water recovery, recognise the sector's economic contributions while managing transition impacts. Some submissions called for social, economic and Cultural objectives to be balanced with environmental objectives in the Basin Plan while others argued to maintain an 'environment first' focus.

Sustainable Diversion Limits (SDLs) and water recovery

Feedback identified both support for the intent of SDLs and concerns regarding their implementation, including technical assumptions, modelling transparency, and delivery constraints. Water recovery approaches saw broad agreement in the need for effectiveness and to recover the amounts under the current Basin Plan, with diverging views as to whether more water recovery should be pursued and whether a full assessment of the methods and impacts of water recovery was needed.

Irrigation supply channel, St George, QLD.

Climate change and future resilience

Climate change was highlighted as a critical and escalating risk. Many campaign submissions called for more ambitious action, and called for the stronger integration of climate projections into planning, alongside more adaptive and flexible management frameworks including adjusting SDLs. Others felt that existing management frameworks were sufficient to address climate risk, or urged caution in the face of uncertainty.

River connectivity and ecosystem health

Improving connectivity, particularly in the northern Basin, along with restoration of floodplains and wetlands, were key environmental priorities. Some irrigators and groups expressed concern regarding any potential rule changes in the northern Basin that would impact entitlement reliability, calling it effectively acquiring water 'by stealth.'

Scope of the Review

The Authority has been clear that this is an outcomes-focused review that considers the broader operating environment and how it has changed since 2012.

- We now have a portfolio of Commonwealth environmental water worth $11 billion, and we must do what we can to maximise that investment.
- We know that success depends on water volumes and also on effective river management, complementary land management actions, addressing in-stream barriers to fish movement, and the involvement of local communities.
- We know that governments and communities recognise the importance of actively involving First Nations peoples in decisions that affect them, including water management.

Group tour near Wallabadah Racecourse, NSW, highlighting water-slowing structures, revegetation efforts and recent changes to the watercourse.

The insights and information you have provided on the options in the Discussion Paper will inform our policy development. The Authority will put forward options and recommendations to government in the Review Report by the end of 2026.

Additional insights

We received many submissions which focused on current Basin Plan implementation, including the additional 450 GL in water recovery, and the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) and the anticipated shortfall.

The Department of Climate Change, Energy, the Environment and Water is leading the Restoring our Rivers program to recover water towards the 450 GL water recovery target. This includes water recovered through voluntary purchases and non-purchase options and is supported by funding under the Sustainable Communities Program to reduce social and economic impacts on communities.

As of March 2026, 221.2 GL had been recovered towards the 450 GL target, with the aim of recovering 400 GL by the end of 2026. The Restoring our Rivers Program will conclude at the end of 2027.

SDL Adjustment Mechanism

The Sustainable Diversion Limit Adjustment Mechanism is a program that allows some of the water required to be recovered under the Basin Plan to be offset by a program of works and management changes designed to deliver equivalent environmental outcomes using less water. The proposed package of works was expected to deliver an equivalent of 605 GL of water recovery.

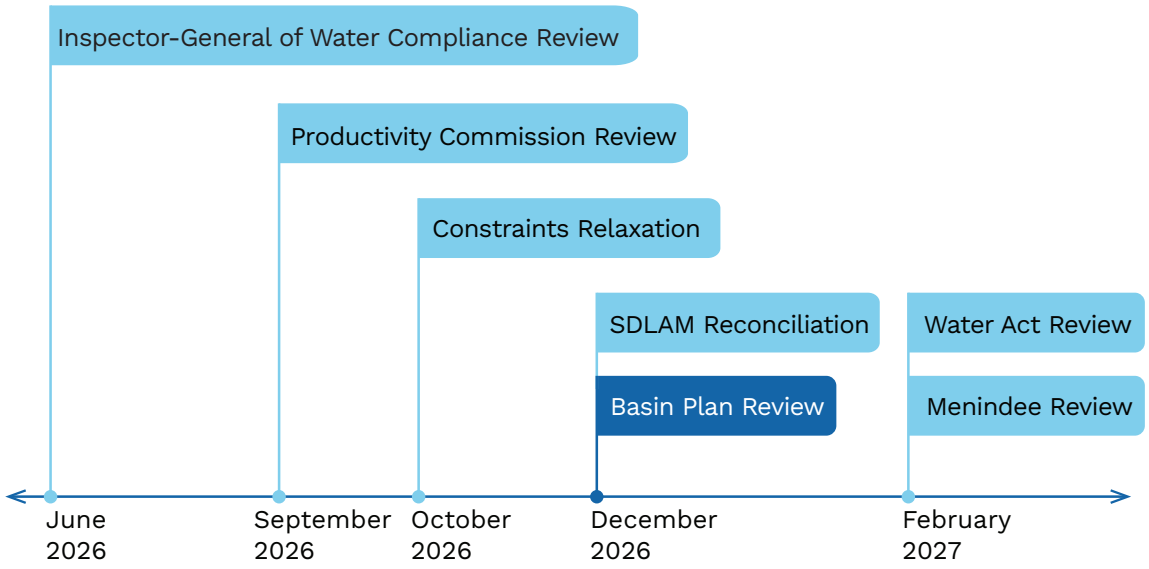
While some of the SDLAM projects have been completed, others have been delayed or cancelled entirely. Later in 2026, the MDBA will reconcile the volume of water to which the completed projects are equivalent and determine the further water recovery required. We will consult on this reconciliation process.

The SDLAM program will end at the end of 2026.

More information about the SDLAM reconciliation process.

Submissions also raised issues beyond the scope of the Basin Plan and Discussion Paper. This included issues relevant for the Water Act Review, including governance frameworks and roles and responsibilities of various agencies, like the Inspector-General of Water Compliance (IGWC) and the CEWH, and addressing historical inequity by increased water ownership by First Nations people. We also received feedback on state water management issues, including water sharing plans, local rules and arrangements, and town water infrastructure, including treatment facilities. While the Basin Plan does not cover these issues specifically, these submissions help to build a rich picture of what is important and how all levels of government need to work together to achieve outcomes. We have reflected these insights in this report.

Australian water management reviews



Looking ahead

The feedback received will directly inform the next stage of the Basin Plan Review, helping to refine policy options, strengthen the evidence base, and support more effective implementation. Insights provided will also inform the review of the *Water Act 2007* (Cth), to be completed in 2027.

We are committed to continuing to engage as the review of the Basin Plan progresses. This *What We Heard* report provides key information for the 2026 Review Report. Thank you to all who took the time to provide submissions and participate in engagement activities. We appreciate your contribution to this once-in-a-decade review that will provide Basin governments with informed ideas for the next 10 years of Basin management.

Group tour near Wallabadah Racecourse, NSW, highlighting water-slowing structures, revegetation efforts and recent changes to the watercourse.

Public consultation during the 2026 Basin Plan Review

About the Review

In 2026 we set out to review the Basin Plan. Under the *Water Act 2007* (Cth), the Basin Plan must be reviewed every 10 years to make sure it remains fit for purpose.

This review is an opportunity to take stock of how the Basin Plan is working in practice, identify what needs to improve, and focus on the priorities for the next decade. It is an opportunity to improve how the Basin is managed and to move forward together.

An important part of this process is hearing directly from the people, communities and organisations affected by Basin water management. Public consultation helps test existing evidence against lived experience, practical knowledge and community priorities from across the Basin.

To support this consultation, we released a Discussion Paper in February 2026. The Discussion Paper brought together existing evidence and identified the key issues and possible options to help focus consultation with communities and stakeholders.

Rather than proposing solutions, the Discussion Paper asked people to tell us what they think, what is working, what is not, and what needs to change.

It asked people to share their views on:

- The issues and options presented
- Other issues and option that should be considered
- What the priorities should be, and why.

These Discussion Paper questions formed the foundation of public consultation for the Review. Public consultation centred on inviting submissions – formal responses provided by individuals, communities, organisations and other stakeholders during the consultation period, setting out their views, evidence and recommendations in writing.

A brief stop at the Lachlan River, Jemalong Weir camping area, NSW.

Public consultation also included extensive face-to-face engagement activities with groups and communities across the Basin. These local conversations provided an opportunity to hear directly from people about their experiences, perspectives and priorities and to explain and encourage taking part in the formal submission process.

The Review's public consultation period spanned 12 weeks, running from 5 February to 1 May 2026. We were legislatively required to:

- consult with Basin States, the Basin Officials Committee and the Basin Community Committee
- make the Discussion Paper available on our website
- give a copy of the Discussion Paper to relevant state ministers and invite Basin States to make a submission
- publish an invitation to members of the public to make a submission to the Authority on the Review.

However, we did far more than that.

Through both engagement activities and submissions, we heard a wide range of perspectives on how the Basin Plan is working on the ground. These insights will help inform the next stage of the Review.

We heard from people across towns, regions and industries, each bringing their own experience of how the Basin Plan is working on the ground.

Public consultation process

Raising awareness and encouraging participation

Throughout the consultation period, we took active steps to make people aware of the Basin Plan Review and how they could have their say.

We used a variety of ways to reach people across the Basin. This included print and social media advertising, webinars, updates on our website, social media, newsletters, email newsletters and direct outreach to stakeholder groups and communities. We emailed and called First Nations organisations, groups, representatives and community members letting them know that we would be out on Country if people wanted to ask questions or needed help making submissions. An invitation to make a submission to the review was publicly advertised on the Australian Government Gazette, in newspapers in each Basin state and on social media. Alongside this, we developed clear, easy-to-understand materials to explain what the review was about, what the Discussion Paper covered, and how people could make a submission.

We also took a proactive approach to media promotion. This included media releases, placed articles, press and radio interviews and appearances to raise awareness and encourage participation.

Together, these efforts were designed to make it as easy as possible for people to get involved, no matter where they live or how they preferred to engage. We wanted to generate participation across the Basin, and encourage a broad range of submissions to make sure everyone had their say. Our goal was to genuinely engage.

We heard from some communities that they would have liked us to advertise locally about the sessions we were holding. We understand that not everybody felt included, and that we could have done more to make it easy to get involved. In planning future engagement activities we will learn from this feedback.

From online updates to media appearances and local outreach, we aimed to meet people where they were and make it easy to get involved. But we can always do more.

Engagement activities

The engagement approach helped people understand the Discussion Paper, ask questions and take part in the Review by making a submission.

We started our engagement with a series of webinars, before undertaking sectoral roundtables ahead of a Basin Leadership Summit in Brisbane. This then moved progressively into our regional engagement tours and on Country support.

Left: Fact sheets set out for an outdoor conversation with locals at the Blayney Eco Hub, NSW.

Right: Consulting with locals in the Canowindra Café, NSW, on the road for the BPR Discussion Paper consultation.

Left: BPR Discussion Paper consultation combined within agenda of River Lakes Coorong Action Group AGM and Science Forum, Clayton Bay, SA.

Right: Plotting the course for our next stop on the BPR Discussion Paper consultation at Condobolin, NSW.

We spoke with communities; First Nations organisations, groups and people; stakeholders across the Basin including agricultural and industry groups; local government; environmental groups; scientists and water users. We also heard from individuals with a personal interest in the future of Basin water management.

We took a flexible, place-based approach. In some locations, this meant large group discussions. In others, there were smaller, more informal conversations. We aimed to meet people where they were, be flexible and provide different ways to get involved.

These conversations gave people the opportunity to share their lived experiences and views, ask questions, and reflect on how the Basin Plan is working in practice.

Every comment, concern and idea contributed to our understanding of stakeholder, First Nations and other community perspectives. This information was used to:

- deepen our understanding of how the Basin Plan is experienced on the ground
- provide important context for analysing formal submissions
- identify key themes, insights and areas of difference across the Basin
- support people to make a submission.

Engagement did not replace submissions: it supported them

Submissions were the formal way to have your say. Engagement helped people understand the issues, test ideas and feel confident contributing to the Review.

Submissions

Submissions are a fundamental part of the Review. They were not only required by law, but also provided a way for people to put their views on the record, whether that was detailed technical input, local experience, or personal perspectives on how the Basin Plan is working. Some people provided the MDBA with ideas, options and even technical evidence to consider.

People could make a submission in several ways, including:

- through the online submission portal
- by email
- mail
- by sharing video, audio and other media submissions

Using mobile digital technology we were also able to support people to make their submission on Country or over the phone. The submission process ensured any Indigenous Cultural Intellectual Property shared with the MDBA was done so with care and respect. In line with Free Prior and Informed Consent, information was provided to enable people to make their own decisions regarding privacy and publishing options including anonymity.

We received **2,470** submissions from individuals, communities, organisations and industry groups. Submissions ranged from one or 2 sentences, to 100 or more pages.

To support the processing of this large number of written documents, the MDBA tagged submissions using keywords linked to the Discussion Paper themes, as well as themes identified through the broader engagement program.

This tagging helped direct submissions to the most appropriate subject matter experts for in-depth human review and analysis. Each submission was then considered by MDBA staff members involved in the Review, and by the Authority Board members. Submissions were considered in light of policy options, often across multiple areas, and to enrich and deepen our understanding of the disparate perspectives put forward.

A substantial number of submissions were marked confidential, or did not attach the permissions necessary for us to include them in this publication or publish them on the website. However, every single submission has been considered and your views taken into account.

The section *How the feedback will be used* explains how feedback will be considered after it has been reviewed by subject matter experts, and how it may inform any changes to the Basin Plan following consultation.

We designed the Review as a connected process, starting with the Discussion Paper to set the key questions, followed by public consultation to hear from people through engagement and submissions. All feedback is now being used to inform the next stage of the Review.

Aunty Brenda McBride, Gamileroi and Yuwaalaraay Elder sharing knowledge of native apricot plants with the On Country Support team, near Narran Lakes, NSW.

Engagement overview

How we engaged across the Basin

We used a mix of in-person and online activities to connect with people across the Basin and make it easy to get involved.

Over the consultation period, we visited 99 towns and cities, engaging with communities across Basin states and territories.

In-person engagement brought us directly into communities to have open, genuine and meaningful conversations. We recognised that Basin communities have valuable expertise, knowledge and lived experience that can help shape the future of the Basin Plan. Our approach was to focus on listening more than telling, creating space for people to share their perspectives.

Through Basin Plan Review regional engagement tours, regional meetings and on Country discussions, we travelled thousands of kilometres to towns and cities across the Basin to meet people where they live and work. This included a wide range of formats, from larger public sessions and council-hosted meetings in council chambers, through to smaller group discussions in community venues and informal conversations in parks, shops or by the river.

Online engagement, including webinars and Basin-wide stakeholder roundtables, made it possible for people to join from anywhere. These sessions helped us share consistent information, walk through the Discussion Paper and hear from peak bodies and representative organisations.

Together, these different approaches allowed us to combine scale with depth, reaching many people while also taking the time to listen carefully in local contexts.

Webinars

Our webinars enabled people to participate from anywhere in the Basin or beyond, ensuring we could reach beyond the locations we visited in person. Webinars were open to everyone and these forums were used to explain the Discussion Paper themes and how to make a submission.

On Country Support

On Country Support (OCS) provided a dedicated pathway to have conversations with First Nations people On Country, supporting them to participate in the Basin Plan Review and make submissions. OCS responded to what First Nations people asked the MDBA, providing the opportunity to deepen our relationships with First Nations, and meet with Elders, community members and local organisations. For some it was an opportunity to connect with the MDBA for the first time.

During the 12-week period for OCS, we travelled to 59 towns across the Basin, providing accessible places, often by the river, for people to sit with us, to share their life stories, and to have open and honest conversations about what matters most. We provided information in Culturally appropriate factsheets and through conversations with the MDBA team. With mobile technology we could support people to prepare and lodge their submission, including by video and audio recordings.

We met with over 300 First Nations community members on Country listening to their lived experiences and connected with over 80 local First Nations organisations.

Left: Uncle Hewitt Whyman Yorta Yorta and Barapa Barapa Elder and Uncle Robert Carroll Wiradyuri and Ngunnawal gibirs meeting with the On Country Support team, Murrumbidgee River, Wagga Wagga, NSW.

Below: On Country Support team in community during the BPR Discussion Paper consultation, Dubbo, NSW.

Left: Aunty Brenda McBride, Aunty Rhonda Ashby Gamilaraay and Yuwaalaraay Elders, with the On Country Support team, Narran Lakes, NSW.

Below left: Jamie Newman Wiradjuri Nation, CEO and Managing Director of Orange Aboriginal Medical Service with On Country Support team, Orange, NSW.

Below right: Aunty Rayleen Summers Murrawarri Elder with the On Country Support team, Bourke, NSW.

Regional engagement tours

We travelled across the Basin, from regional centres to smaller communities, to meet people where they live and work.

In some locations, this meant larger organised sessions. In others, it involved smaller meetings and local discussions, often shaped by the needs and availability of the community.

Left: A MDBA team member connecting with an attendee at the 2026 Basin Leadership Summit.

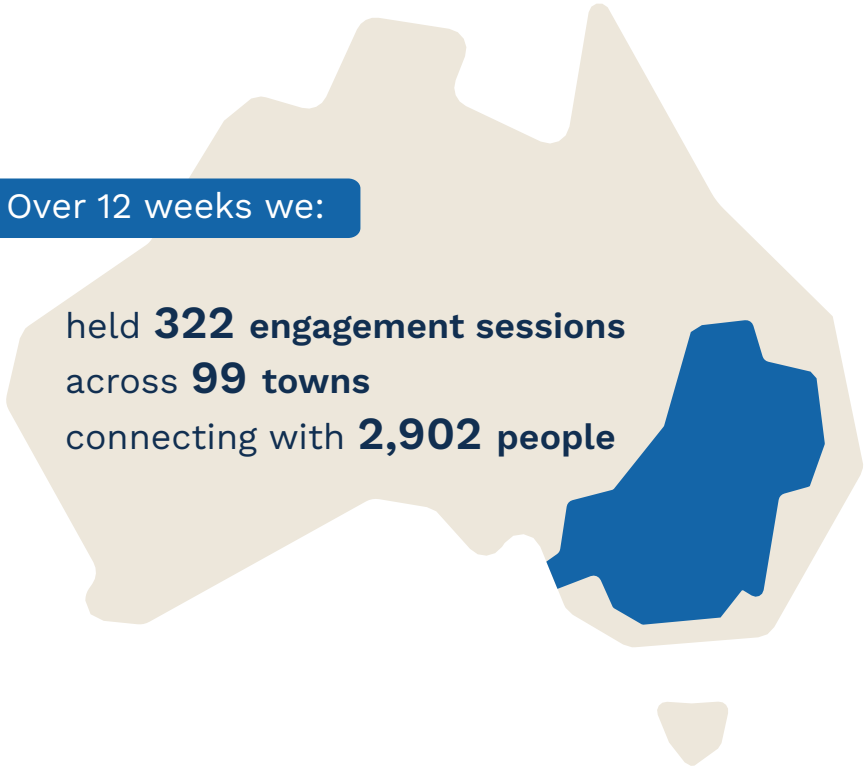
Below: Federal Water Minister Murray Watt meeting stakeholders at the Campaspe Shire Council offices, Vic.

Left: Capturing people and places that we visited across the Lachlan Macquarie and Barwon Darling during the BPR Discussion Paper consultation tour.

Ally Coe Wiradjuri Nation, CEO of Wiradjuri Condobolin Corporation with a MDBA team member, Condobolin, NSW.

In some places, we spoke with dozens of people in structured sessions. In others, we spoke to smaller groups, sometimes just a handful of people, sharing local experience and perspectives in a more informal setting.

These face-to-face conversations gave us a deeper understanding of how Basin Plan settings are experienced on the ground, and allowed for more detailed, relationship-based discussions.



Leadership Summit

We held a Basin Leadership Summit in Brisbane on Turrbal and Yuggera Country in March 2026.

The Summit brought together leaders from across the Basin, including irrigators, environmental organisations, First Nations peoples, local government, state and Commonwealth agencies, and others with a role in Basin water management.

The Summit provided a structured forum for Basin leaders to better understand the Discussion Paper and evidence base, explore issues from different perspectives and consider how they could support informed conversations within their own organisations and communities.

Across the 2 days, participants took part in plenary sessions, small-group discussions and exploration sessions with MDBA staff and invited presenters. These sessions created space for people to ask questions, test ideas, discuss evidence and reflect on the future of Basin management.

We heard that the Summit helped build understanding of the scope and complexity of the Basin Plan Review. Participants told us the leadership-focused activities helped set a constructive tone, supported open and respectful discussion, and strengthened relationships across sectors, jurisdictions and communities.

By the end of the Summit, Basin leaders were better equipped to return to their communities, organisations or even government agencies and develop their submissions.

The summits were all about enabling submissions and allowing people to test ideas and be better prepared to work with their communities on submissions.

Right: Vanessa Cook with participants at the 2026 MDBA Basin Leadership Summit.

Left: MDBA staff and attendees at the 2026 MDBA Basin Leadership Summit had the opportunity to develop connections and share ideas that would help to deliver real outcomes for communities.

Right: Attendees at the 2026 MDBA Basin Leadership Summit.

Sectoral roundtables

We invited stakeholders from across the Basin for a series of sectoral roundtable discussions. These were more structured discussions and the MDBA was led by participants regarding what they wanted to discuss.

These sessions brought together peak bodies, representative organisations and sector leaders including agricultural groups, environmental organisations, scientists, investors and water managers.

Across these sessions, people engaged deeply with the issues. We heard strong support for shifting the focus of the Basin Plan towards measurable outcomes, particularly over the long term.

Young Leaders Roundtable – A vision for the future Basin

We brought together a group of 17 emerging leaders from across the Basin as part of the Young Leaders Roundtable, which was held during the Basin Leadership Summit.

This conversation had a different focus from many others. While many sessions focused on current challenges, this group looked ahead to the kind of Basin they want to see in the future.

There was strong interest in developing a shared submission, with discussion centred on the core principles that underpin a healthy Basin and healthy communities.

The tone was constructive and future focused. We heard participants describe a future Basin with clean, healthy rivers, improved water quality, thriving wetlands and floodplains, and stronger connections between environmental outcomes, community wellbeing and productive industries.

While the group supported continued implementation of the Basin Plan, they also called for clearer priorities, greater collaboration and a stronger focus on long-term environmental outcomes.

‘ Don’t apologise for being passionate – I won’t!’

‘ Healthy Country creates healthy people and healthy communities.’

‘ Let’s not despair about challenges, let’s get into what we want to see [for the Basin in the future].’

Gwydir Wetlands, NSW.

What we heard in submissions

Themes we heard

The Discussion Paper focused on 8 core topics. However, we didn't just ask for feedback on those topics. We also asked you to tell us what we may have missed.

You raised important issues that were important for us to listen to and better understand. These included:

- the lived experience of First Nations peoples in the Basin
- recognition of agriculture and regional communities
- water recovery
- climate change
- governance and accountability
- ecological targets and environmental outcomes

As these issues were raised consistently and strongly, we have reflected them in this report.

Most of the submissions we received covered more than one topic, but a few primary themes stood out:

- Water for the environment
- Climate change
- Initial sustainable diversion limit (SDL) assessments
- Native fish
- Water quality

We have organised this report by the volume and interest of submissions. The order reflects the issues you told us were most important to you.

A key issue we heard from First Nations peoples' is that their perspectives are integral to Basin management as a whole. For this reason, as with the Discussion Paper, we have reflected First Nations peoples' knowledges, interests, concerns and involvement across the report.

Reflections on lived experiences in the Basin

First Nations peoples

We acknowledge being invited and welcomed to walk on Country and read submissions by the Basins First Nations is a privilege that MDBA staff respect and honour. We walk gently in community, respectfully take time to honour the Ancestors, the knowledge holders and the Basin's First Nations peoples.

First Nations peoples generously shared with us their lived experience of Water Country and the impacts of Basin water management systems.

> ' Water is not a resource to First Nations peoples. It is kin, it is law, it is life. Across the Murray–Darling Basin, more than 122,000 First Nations people from over 50 Nations live in direct, generational relationship with these rivers. Their wellbeing is not incidentally connected to river health. It is structurally, spiritually, and physically dependent upon it.'
>
> Butchulla and Woppaburra woman Jade Gould

> ' Water on Gamilaroi Country is a living cultural being. It carries law, identity, kinship, and obligations that have been handed down through our Elders and ancestors.'
>
> Tamworth Gamilaroi Traditional Owner Collective

We heard from many submissions and conversations on Country that since colonisation, and the establishment of Basin water management systems, including the Basin Plan, First Nations peoples' rights to water have not been adequately recognised, and their spiritual, Cultural, economic and environmental interests and aspirations have not been achieved.

> ' We want to hold or control water in our own right, consistent with our Native Title rights and interests. And rather than forcing Aboriginal people to fit into Western systems of thinking, capacity building must be two ways, where our rights, knowledge and lived experience is finally reflected meaningfully in achieving balance.'
>
> Tamworth Gamilaroi Traditional Owner Collective

We heard personal stories from First Nations peoples who were born on the river, grew up on the river, and of their lives and deep connection to Country and community. Whilst the submissions we received gave a powerful insight into First Nations peoples lived experience, being out on Country and in community during the public submissions period also provided an unquantifiable appreciation of the breadth of First Nations communities lived experiences.

Anaiwan Elder Uncle Donny Fermor and Edward Fermor.

> ‘ Not far away from the birthing tree up there … Dad had to turn around and bring the car back towards Tamworth. And we’d get the old car just across the bridge there, that old wooden bridge. And mum said to me, she said, ya head come out there on that river, and Dad tried to get into town, but we got top where the lookout is at the Moonbi Ranges, then that’s where I fully come out. So this is my Birthing place, I was born on Country on that bridge, that wooden bridge. Crossing that river. Yeah. Yeah, that’s where I kind of head come out on this river.’
>
> Anaiwan Elder Uncle Donny Fermor

We heard that First Nations peoples have experienced generations of environmental decline, with major concerns for the health of Water Country. First Nations peoples have witnessed and experienced profound changes to the health and wellbeing of Basin river systems.

> ‘ First Nations People have been the custodians of this Country since before time, we have watched it flourish and now we are forced to watch its decline.’
>
> Uncle Tony Lees

> ‘ With the fish in the river back when I was young were so plentiful. We didn’t need a line. The only good thing about the white men putting weir in downstream of the mission is that we could go down and catch them with your hands. you didn’t need a line … There were so many families on the mission we could feed them all.’
>
> Larry Flick – Gomeroi from Collarenabri

We heard from many First Nations peoples that water health was central to the health and wellbeing of First Nations communities.

> ‘Healthy Rivers Keep Mob Healthy. When we talk about river health, we are also talking about the health of our people. The river systems are like the roots of a tree. Those roots sit deep in Country. The water feeds those roots. The tree grows into branches – that’s Mob, connected all across the Murray–Darling Basin. If the water isn’t healthy, the roots can’t feed the tree. And if the roots are weak, the branches suffer … In our communities, we see the connection every day. Water quality, access to Country, protection of sacred and cultural sites – these directly affect physical health, mental health, cultural strength and identity. River health, access to food, fibre and medicine are part of how we live. River management and community wellbeing are not separate issues for us.’
>
> Rebecca Willis

And that declining health is impacting Cultural practices, Cultural heritage and sacred sites, access to food sources, and the transfer of intergenerational knowledge.

> ‘The ecological consequences are visible and devastating. Rivers are pumped to the point where they no longer connect, disrupting the lifecycles of fish and other species … ’

> ‘For Aboriginal people, this is not only environmental loss – it is cultural loss. Songlines are broken. Sacred sites dry out. Traditional food sources disappear.’
>
> Yuwaalaraay Euahlayi Aboriginal Corporation RNTBC

> ‘Another issue is the loss of cultural knowledge due to environmental decline. When rivers, wetlands, and floodplains are degraded, we lose more than biodiversity – we lose stories, practices, and teaching places. There should be stronger support for on-Country cultural programs, where Elders and rangers can pass knowledge down while actively restoring those areas.’
>
> Malcom Brown

First Nations peoples have not had a consistent and equitable role in Basin water management and decision-making.

> ‘The failure to adequately include First Nations in the original 2012 Plan is one of its most profound flaws. Despite legal frameworks such as the Native Title Act 1993, Traditional Owners were not granted meaningful water rights. Cultural flows – water entitlements that are legally owned and managed by Aboriginal nations – were discussed but never properly implemented. As a result, while billions of dollars have been spent reallocating water for environmental and agricultural use, not a single substantial allocation has been returned to Traditional Owners. This is not just an oversight, it is dispossession.’
>
> Yuwaalaraay Euahlayi Aboriginal Corporation RNTBC

> ‘River health – needs more commonality and cooperation between states … More opportunities for First Nations decision making and influence – because we are Rights Holders!’
>
> Anonymous submission

We heard that water as a commodity does not align with First Nations peoples’ values and uses of water, their connection to and responsibility to care for Country, and a fundamental view of river systems as living and connected. The Basin Plan to date has not fully taken into consideration First Nations peoples’ connection and obligation to Country.

> ‘My understanding of water and Country is not abstract – it is lived, inherited, and held through generations. I carry the teachings of my mother and my grandfather, who passed down knowledge, respect, and obligation to care for Country in the right way. This is not just history – it is a living responsibility … Rivers are living entities. They are not simply systems to be managed, extracted from, or regulated for economic return. When rivers are unhealthy, our people feel that deeply – culturally, spiritually, and physically … Water is not a resource. Water is life. Water is spirit. Water holds memory, story, law, and identity … Embedding Caring for Country principles into all aspects of Basin water management, recognising that cultural, environmental and community wellbeing are inseparable.’
>
> Aunty Dr Caroline Hughes AM Ngunnawal Elder

> ‘Aboriginal people, water is not just a resource. It is life, law, identity, and spirit. Rivers, creeks, billabongs, and groundwater are living cultural systems. They hold our stories, songlines, sacred sites, and burial grounds. When water is reduced, diverted, polluted, or mismanaged, it does not only affect the environment – it harms our culture, our health, and our identity as First Nations people.’
>
> Dudley Shillingsworth

The Basin Plan to date has not fully taken into consideration First Nations peoples’ connection and obligation to Country.

> ‘We have cared for these rivers, wetlands and floodplains through our laws, knowledge systems and responsibilities to kin and Country. Our knowledge is not an addition to water management; our knowledge is central to how these systems function, endure and recover. A plan that aims to restore the health of the Basin that is not formed from the bedrock of First Nations knowledge is fundamentally incomplete.’
>
> Aboriginal Water Entitlements Program (AWEP) Advisory Group

First Nations peoples are asking us to stop listening to reply and start listening to hear.

> ‘ … Equal valuing of First Nations knowledge systems alongside Western science, ensuring intergenerational cultural knowledge is respected as expert knowledge … A Basin Plan that does not centre First Nations knowledge, governance, and authority will always be incomplete.’
>
> Aunty Dr Caroline Hughes AM Ngunnawal Elder

Uncle Owen Whyman Barkindji Baaka River Man, Uncle Eddy Harris Barkindji Elder, and Danny Whyman Barkindji Baaka with the On Country Support team, Wilcannia, NSW.

‘ take a little walk on country and I’ll show you … weeds affecting access … disappointing and disgusting … government if you’re listening, help us, we are crying out.’

Owen Whyman, Barkindji Baaka River Man

Basin communities

We heard powerful stories from Basin residents about the respect they held for the Basin, and the ways in which the health of the rivers impacted their wellbeing.

‘ The discussion paper would benefit from being viewed through a One Health lens, recognising that human health is intrinsically linked to that of animals and the environment.’

Doctors for the Environment Australia

‘ I live with my family on Thule Lagoon in Barapa Barapa Country, part of the Murray Inland Delta. The Lagoon is the ancient bed of the Murray River, a place which holds deep stories of time, culture and ecology. Within in a 100 km radius of our farm there are 5 individual Ramsar Wetlands of International Importance and 4 of the 8 Murray Darling Icon Sites. It is special here. This is a place of water, a place of importance & biodiversity – a place which relies on connectivity to function. We tend this significant landscape which has immense remnant redgum forest with trees upwards of 500 years old. We restore remnant wetlands and woodland. We also farm food and fibre. We care.’

Wendy McDonald

‘ I make this submission because the Murray–Darling Basin is not an abstract policy issue to me, it is a living, breathing system and a functioning interrelated ecosystem that I care deeply about. The Basin’s rivers, wetlands, wildlife and communities are part of the fabric of this country. I follow environmental issues closely, I care about native species and river ecosystems, and I believe strongly in justice for nature and First Nations peoples who have cared for these waters for years, and now see Country’s environmental values being eroded away by government decision makers who are making the wrong choices.’

Janice Haviland

Lake Cargelligo, NSW. A beautiful spot the team visited as part of the BPR Discussion Paper consultation.

Many submissions discussed the experience of watching long term ecological decline.

> ‘I am a retired medical practitioner, living on a property on the banks of the Finniss River, upstream of the Murray Channel, Goolwa, the barrages and the Murray Mouth. I welcome the opportunity to comment on the Basin Plan Review discussion paper. My association with this area spans five decades, and I remember clearly the utter devastation caused to this Coorong, Lakes Alexandrina and Albert and Murray Mouth area by over-allocation and the Millenium drought.’
>
> Janette Brooks

People told us about childhood experiences swimming, fishing and canoeing on the water. Many expressed sadness that their children and grandchildren would not be able to share those experiences.

> ‘With a saddened heart I must ask you, to please see the mid Murray wetlands are dying. I have witnessed every day of my 67 years the decline and now faster snowballing decline of the wetlands and lakes. The most visible is the death of thousands of old growth Red Gum trees with hollows around lakes, wetlands previously fed from the Murray River and along the Wakool River and Meran creek. These areas were a showcase of aquatic plants, creatures and cultural places. This has all occurred since around the year 2000, the mismanagement during the Millenium Drought and over extraction due to licence transfers has basically destroyed the ecosystem.’
>
> Greg Ogle, Poon Boon Lakes Koraleigh

Water recovery

Frustration and anger were evident in many submissions, both from people who discussed the impact of buybacks, and from those who were dismayed that full implementation had not yet been achieved.

> ‘I’m a practical rural businessman in a country community that is being devastated by arguably the worst legislation (*Water Act 2007*) and worst plan implementation (Murray–Darling Basin Plan) in our proud nation’s history. But who cares? Certainly, successive governments and politicians who do not adequately understand the complexities of water management and policy don’t care. They have been told over and over again about the unnecessary damage to rural communities, farmers, families and businesses. But they don’t care.’
>
> Garry Baker

> ‘Development of the Basin Plan stands out as a positive outcome over this period. I am dismayed by the white anting and back pedalling on the Basin Plan’s implementation by vested industry interests, captured regulators and spineless politicians all of whom ignore our long-term national interest.’
>
> Sarah Moles

We also heard from many farmers, regional communities and business owners that uncertainty of water availability and changes to water policy have impacted their communities since the inception of the Basin Plan.

> ‘The Basin Plan has had a big impact on my community. Less water means less people in my town which has seen fewer kids in schools and less people participating in my local sporting clubs and our local rural areas like Koyuga where farming families are disappearing into larger farms. Once seen as the answer to viability, larger farms are now also becoming the noose around the farmer’s neck due to lack of affordable and accessible water.’
>
> Amanda Souter

> ‘Although socio-economic impacts are acknowledged, the lived human experience is not given sufficient weight. In regional communities along systems such as the Lachlan River, water policy decisions directly affect not only livelihoods but also wellbeing. The mental health impacts of prolonged dry periods, uncertainty, and perceived lack of control over water outcomes are significant and should be explicitly considered in decision-making frameworks.’
>
> Anonymous submission

> ‘This is not a community with options. There is no mining sector, no large-scale tourism industry, no significant manufacturing base. Agriculture is not one of several industries here. It is the industry. Any policy that restricts water access without a realistic alternative economic pathway places the entire community at risk.’
>
> Goondiwindi Chamber of Commerce

Some spoke of the impacts on their own mental health and wellbeing.

> ‘Come and spend a few days in an irrigation community, and you will leave with a much more realistic view of the injustice perpetrated on these irrigation communities. [signed] John Hand, 76-year-old retired irrigation farmer, retired mainly because of mental health issues, which very many irrigation farmers are suffering from.’
>
> John Hand

> ‘When water is not flowing down the river, largely due to operational systems in place, especially during peak irrigation season, it inhibits our ability to undertake planned work on our farm, requiring changes to plans that we would rather not have to take. This impacts our bottom line, as well as my mental health.’
>
> Greg Lumby

Moving forward together

Across submissions there was a willingness to work together for the future of the Basin.

First Nations peoples are seeking to walk together with government, community and industry through respectful partnerships and shared decision-making.

> ‘ We are not anti-irrigation, anti-farming or anti-consumptive use. We live in the Basin. We work in the Basin. Our families rely on the same towns, industries and services as everyone else. But what we bring is balance because our knowledge systems are built on sustainability, reciprocity and long-term thinking, not short-term extraction.’
>
> Tamworth Gamilaroi Traditional Owner Collective

> ‘ … it is extremely important to be using the correct language when we come together – “Yindyamarra” is a beautiful and powerful Wiradyuri word that means respecting each other and the manner in which we live, the way we not only treat one another, but everything in our environment such as land, water, plants and animals.’
>
> Uncle Hewitt Whyman – Yorta Yorta and Barapa Barapa Elder and Uncle Robert Carroll – Wiradyuri and Ngunnawal gibirs

Uncle Hewitt Whyman Yorta Yorta and Barapa Barapa Elder and Uncle Robert Carroll Wiradyuri and Ngunnawal gibirs meeting with the On Country Support team, Murrumbidgee River, Wagga Wagga, NSW.

Industry, academic, and community groups echoed the desire for respectful and increased understanding.

> ‘ Participants consistently reinforced that technical rigour alone will not resolve entrenched tensions. How decisions are made, and how people experience influence and agency, matters as much as the evidence itself. There is grief over what has been lost. People need space to be heard and seen – even if a decision doesn’t go “their way”. Participants confirmed strong support for moving beyond the binary (e.g. “environment versus agriculture” framing) toward integrated outcomes encompassing land, water, food, culture and community.’
>
> The Peter Cullen Water and Environment Trust

> ‘ The human cultural aspect of the Murray–Darling Basin is vast and diverse. The culture of indigenous peoples, white-man’s colonisation, the soldier settlement schemes, the contribution of immigrants through the 50s 60s 70s and 80s and 90s the modern immigration wave of the 2010s and 20s and the introduction of foreign investment and corporate farming is a direct reflection of modern, multi-cultural Australia.’
>
> South Australian Murray Irrigators

> ‘ The BCC urges governments to work in genuine partnership with each other and with communities and First Nations, recognising that enduring success depends on trust, transparency, and shared responsibility. A Basin Plan that is more codesigned, clearly communicated, and consistently implemented will be better equipped to navigate tradeoffs, respond to emerging risks, and deliver real improvements on the ground.’
>
> Basin Community Committee

Many voiced optimism that working together could achieve better outcomes

> ‘ Now is the chance to put the binary “environment vs industry” debate behind us. We can achieve it all – environmental health, the continued growth of a world-leading irrigation industry, and the long-term prosperity of the regional communities that underpin them. The path forward is not more water, but better management.’
>
> NSW Irrigators Council

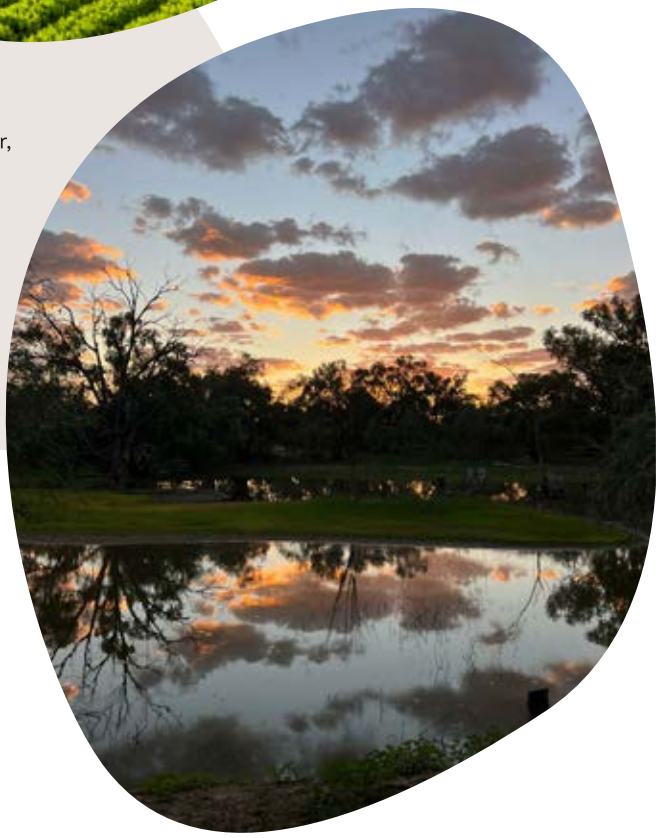
> ‘ Caring for Country includes caring for rivers and wetlands. Protecting and restoring these waters supports culture, wellbeing and the continuation of knowledge, traditions and cultural responsibilities. The broader Australian community has much to gain from better understanding Cultural and land management practices of First Nations in this country.’
>
> Swan Hill Sustainability Group

‘ Australian farmers are not separate from the environment – they are its custodians. That responsibility is taken seriously across the sector. Farmers understand that long-term productivity depends on healthy ecosystems, environmental stewardship is essential to sustainability and responsible land and water management is non-negotiable There is a strong and genuine commitment within agriculture to achieving positive environmental outcomes. However, those outcomes must also support social resilience, economic viability and the long-term strength of regional Australia.’

Gillian Fennell

Above: Citrus farms near Headings Cliffs, Murtho, SA.

Right: Banks of the Darling River, Warrawong Caravan Park, just outside Wilcannia, NSW.



Water for the environment

About this theme

This theme covers what submissions said about water for the environment. It looks at how this water is planned, protected, delivered and monitored. It includes views on environmental watering, coordination, local delivery, constraints, partnerships with First Nations peoples, climate change and the balance between environmental outcomes and regional impacts.

Submissions often focused on the decisions made by environmental water holders, the decisions on prioritisation areas of the Basin, and issues people had observed with delivery of this water in their local region.

Some community groups and individuals also called out when they'd seen this water used well, when they'd been involved in planning and coordination, and on ground monitoring of the results. There were some positive stories shared about environmental water holder partnerships with communities, First Nations peoples and industry.

What we heard

Planning

Planning and prioritisation of environmental water was raised as key to maximising outcomes. This came through particularly in relation to better enabling the Commonwealth Environmental Water Holder and other environmental water holders to use environmental water where it mattered most.

> **'Rather than trying to manage environmental outcomes for hundreds of environmental watering requirements, a better approach would be to identify a smaller subset of water requirements reflecting the essential watering needs of priority wetlands and enforce them as the highest priority in water sharing plans.'**
>
> Wentworth Group of Concerned Scientists

> **'We also need to ensure that there is sufficient clean water for the environment because it is critical for healthy flora and fauna … if we have healthy rivers, wetlands and forests we will have healthy wildlife and people.'**
>
> Uncle Hewitt Whyman – Yorta Yorta and Barapa Barapa Elder and Uncle Robert Carroll – Wiradyuri and Ngunnawal gibirs

> **'Having clear objectives and targets for water-dependent ecosystems, a cooperative approach to Murray–Darling Basin Authority partners and basin stakeholders, a strong evaluation program and good outreach are the key underpinnings to the Commonwealth Environmental Water Holder's success.'**
>
> National Parks Association of NSW

Peel River in Tamworth, downstream of Bicentennial Park in Tamworth, NSW.

Delivery and coordination

Many submissions supported improving how environmental water is delivered and coordinated. We heard demands for stronger coordination between agencies, river operators, environmental water holders and local communities.

> ‘ The opportunity for Basin governments for the next decade of the Basin Plan, is to leverage the maximum benefit from the environmental water that has been recovered by the commonwealth and other basin governments. The most cost-effective approaches will be through optimising water delivery operations for multiple benefits and targeted complementary river, riparian and catchment management actions.’
>
> One Basin CRC

> ‘ Complementary works must now be the priority: water alone is insufficient to achieve Basin Plan outcomes. Complementary land, water and environmental works that improve environmental water outcomes in an integrated catchment manner are critical to the health of the whole system.’
>
> Dianne Bowles

Some irrigation operators encouraged environmental water holders to consider using more irrigation infrastructure networks, and a partnership model for delivery.

> ‘ **JIL considers that future environmental water management must place greater emphasis on developing workable delivery solutions, including the use of existing irrigation infrastructure and operational systems where appropriate. Commercial and operational arrangements with entities such as JIL can play an important role in enabling environmental water to be delivered efficiently, safely and at scale, while maintaining system reliability for all users.’**
>
> Jemalong Irrigation Ltd

> ‘ **Key to success for the next steps of Basin water management will necessarily be working together collaboratively with private landholders, communities, industries, and IIOs. In the Murrumbidgee, about 85% of the valley is private land. Managing environmental outcomes across the full landscape requires collaboration and partnerships.’**
>
> Murrumbidgee Irrigation

They also wanted environmental water decisions to better account for local river conditions, climate change, water quality, connectivity and native fish outcomes.

> ‘ **We would however like to have more transparency on the intentions and the outcomes these flows are intended to or have achieved. This we acknowledge will have a time lag given the complexity of responses for the various environmental outcomes being targeted. This is an important process to avoid the misinformation too frequently appearing on social media on environmental water use and or outcomes. As such we support the proposals to invest in coordinated and transparent environmental water delivery and outcomes reporting.’**
>
> Gwydir Valley Irrigators Association Inc

Watertrust Australia’s Lower Balonne Initiative proposed temporary purchase, store-and-release options and pilot programs. This reflected a broader preference for adaptive, event-based and locally practical approaches.

> ‘ **Experience in the Lower Balonne has shown that combining local knowledge with robust science and genuine engagement can deliver outcomes that are environmentally effective and socially legitimate.’**
>
> Lower Balonne Working Group

In South Australia, regional tour event participants repeatedly linked local environmental outcomes to upstream decisions, environmental water delivery, constraints, river operations and state-based water management.

Environmental watering partnerships

Many submissions shared stories of partnership with environmental water holders, including local catchment projects, site-specific planning and monitoring.

> ‘Since 2012 Ricegrowers’ Association has been working with Birdlife Australia on the Bitterns in Rice Program. We now know that the rice fields of the New South Wales Riverina support the largest known breeding population of the species, with 500-1000 mature individuals in most years. Remarkably, this represents about 60% of the national population and 40% of the global total … This work has now been recognised by the Commonwealth Environmental Water Holder who, working with Murray Wildlife will work to develop rice adjacent wetlands to complement the work of the Bittern’s in Rice Project.’
>
> Ricegrowers’ Association of Australia

A strong theme was that environmental water planning needs to reflect the physical and ecological reality of each river system. Many submissions said environmental water will work better if planning is local, practical and based on the way each river, wetland or floodplain functions.

In Orange, regional tour participants wanted more attention to the pattern of releases. They said environmental watering should better reflect seasonal variability, inundation and natural drying in the Macquarie Marshes.

Many submissions also said environmental outcomes depend on flow patterns, not just total volumes. They said environmental water needs to arrive at the right time, stay long enough, support fish movement, connect wetlands and floodplains, and reflect natural seasonal patterns where possible. This was especially important in the Barwon–Darling system and right across the northern Basin.

The benefits of partnerships with First Nations peoples were also highlighted in submissions, and we heard calls for strong partnerships, and joint decision-making.

> ‘We know we add value to environmental water deliveries in the Murrumbidgee, and we will in the Lachlan too. We can all learn by watching the system response to Aboriginal ways of managing, use science to compare outcomes, evidence-based decision making through Strategic Adaptive Management, truly Aboriginal led science.’
>
> Nari Nari Tribal Council

Transparency and accountability

Many submissions said future environmental water decisions should be supported by clear evidence, practical implementation pathways, community engagement and transparent assessment of benefits, risks and trade-offs.

They wanted clearer evidence of what environmental water is achieving. They asked for better reporting on watering decisions, delivery losses, monitoring results, ecological outcomes and who is responsible for implementation.

Several submissions said confidence depends not only on reporting what actions were taken, but also on trusted science, independent evaluation and clearer public explanation of environmental outcomes.

‘ The Basin Plan has strengthened governance and oversight, yet public confidence has not kept pace. Many communities remain uncertain how decisions are made and how trade-offs are considered. This gap reflects not only communication challenges but also the complexity of shared responsibility across jurisdictions.’

Australian River Restoration Centre

‘ Greater transparency, consistency, and accountability are required to ensure that any changes to water management arrangements do not result in unintended or inequitable outcomes.’

NSW Farmers Association

‘ Transparency is critical to ensuring accountability and building public confidence in Basin water management. Current reporting arrangements are complex and do not provide a clear or complete picture of environmental outcomes.’

Conservation Council of the ACT Region

‘ PPSA supports the need for robust and transparent water allocation frameworks, underpinned by strong scientific evidence, rigorous monitoring, and accurate accounting of all water use. Environmental water must be managed with a high degree of transparency and accountability, with clear demonstration that its use delivers measurable and effective outcomes. Applying the same level of scrutiny to environmental water as is applied to consumptive use is essential to maintaining producer confidence and broader community trust in the Basin Plan.’

Primary Producers SA

Site visit with Friends of Merbein Common, Cabarita Community Inc, Yelta Landcare, Mildura Birdlife, and Victorian Department of Energy, Environment and Climate Action, Merebein Common, Vic.

Environmental water settings

Some submissions supported more ambitious environmental water settings, including stronger protection as it moves through the system.

> ‘When the rivers are struggling, our people feel that too. That’s why environmental flows must be protected and actually reach the places they’re intended to, especially culturally significant sites.’
>
> Malcom Brown

> ‘Restore longitudinal connectivity of rivers (continuity of flow along a river’s length, providing adequate flow to the next river downstream all the way to the sea) by protecting first flush flows, protecting environmental flows and legislating limits to pumping based on thresholds that ensure protection of critical base flows.’
>
> Conservation Council of South Australia and associated campaign submissions

> ‘There remain gaps in providing enduring arrangements to protect environmental water from extraction as it flows within and between catchments. Gaps include between the northern and southern Basin (where a 3-year trial has recently been established) and in some unregulated systems. Recent experiences have also shown that established protections can be switched off by the suspension or expiry of state water sharing/management plans.’
>
> Commonwealth Environmental Water Holder

Protecting planned environmental water (PEW) was also flagged as important.

> ‘In comparison to licensed water, planned environmental water (PEW) will be disproportionately impacted by climate change. The Authority must identify and recommend amendments to the Basin Plan to protect Planned Environmental Water volumes from being eroded due to the impacts of climate change.’
>
> Environmental Defenders Office

> ‘In the Basin, all water not attached to extractive or environmental entitlements is (somewhat ironically) defined as Planned Environmental Water (PEW), even when some of this is unplanned floodwater. Without further reforms to allocation frameworks, PEW is being eroded by reduced inflows. Furthermore, current methods for defining and evaluating PEW are complicated, unclear and confusing. The legal definitions and protections of PEW are imprecise and uncertain, such that the volume of PEW protected is impossible to define or enforce.’
>
> ANU Institute for Water Futures

Cultural water as distinct from environmental water

Some submissions raised the issue that cultural water must be legally recognised, but separate to environmental water.

> ‘ For us, cultural water is not the same as environmental water. Cultural water is water that allows us to live our culture and uphold our responsibilities.’
>
> Dianne Connolly and anonymous

> ‘ Cultural flows are water entitlements legally owned and managed by First Nations people for cultural, spiritual, environmental, and social purposes. These must be embedded into the Basin Plan as a guaranteed right, not a future possibility.’
>
> Dudley Shillingsworth

Social, economic and physical impacts

Some submissions raised concerns about the social and economic impacts of water recovery on regional communities, farms and private landholders.

> ‘ The Review should prioritise measures that make better use of existing water – such as infrastructure upgrades, environmental works and modernised environmental watering strategies – before considering any further reduction in consumptive use.’
>
> Anonymous submission

> ‘ There needs to be clear evidence on how environmental water is being used, what outcomes it is delivering, and whether those outcomes justify the environmental, social and economic costs. Greater transparency and accountability in environmental water governance, decision-making and investment is fundamental to building trust in the system.’
>
> Australian Dairy Products Federation

> ‘ Further water recovery should only occur where there is clear evidence of net environmental benefit and no negative socio-economic impact. Non-water measures must be prioritised.’
>
> Winegrape Council of SA

> ‘ From my perspective as a young farmer with a young family relying on this system for our future, the Plan risks doing more harm than good by undervaluing how productive irrigation already supports environmental functions, straining delivery systems, damaging key ecosystems like the Barmah Forest, and hollowing out rural communities.’
>
> Ben, Koyuga

Irrigation channel, St George, Qld.

Others expressed concern about the physical impacts, especially where environmental watering may involve overbank flows, impacts on private land and flooding risks.

> ‘ **Over recent years, many properties have been repeatedly inundated as a result of environmental water delivery. These are not just natural flood events. They are managed flows that are coming through without the infrastructure, controls, or agreements needed to manage where that water goes. Once it leaves the system, it spreads across productive land where it sits for extended periods of time. We are continually seeing paddocks go under water multiple times without any chance to recover in between. Water sits for weeks and often months, killing crops, damaging soil structure, and reducing landowners the opportunity to make a financial income in the best seasons.’**
>
> Gingham Lower Gwydir Landholders Association

Others considered that governments should protect private land from the possible impacts.

> ‘ **We strongly support the reinstatement of such flows by relaxing operational rules imposed on environmental water, better utilizing and co-ordinating environmental water with consumptive water and providing government support to protect private land with appropriate infrastructure where necessary.’**
>
> Swan Hill Sustainability Group

Climate change

About this theme

This theme covers what we heard about climate change and how it should shape the future Basin Plan. It includes views on what hotter, drier and more variable conditions mean for the Basin in the future, how climate risks should be shared, what outcomes remain achievable, and how Basin planning and regional communities should adapt.

What we heard

Climate change across the Basin Plan

We heard that climate change should not be treated as a separate issue or a late add-on, and should instead be built into the core of Basin planning.

> **'Climate change is accelerating every existing pressure across the system.'**
>
> Hon. Karlene Maywald, former South Australia Minister for the River Murray

> **'Climate change must be treated as a defining condition … requiring improved adaptive capacity in planning and water management.'**
>
> Tanya Kirkegaard

Over a thousand campaign submissions led by Environment Victoria, Conservation Council of South Australia and the Murray Darling Conservation Alliance argued that climate change must be a focus area for now and that the MDBA should not wait for response.

> **'The 2012 Basin Plan failed to consider climate change projections. Given the latest modelling again indicates that the Basin will be hotter and drier on average and that there will be less water flowing into rivers, it would be highly irresponsible to delay consideration of climate change for another 10 years. Doing so would only be delaying the inevitable changes that are needed and would further expose species, ecosystems and Basin communities to unacceptable levels of climate risk.'**
>
> Campaign submissions

We heard views that climate impacts are already affecting water availability, river health, water quality, town water security, farming decisions and environmental outcomes.

> **'I have personally seen extreme weather events in the last 10 years that I have never witnessed before in my life.'**
>
> Uncle Hewitt Whyman – Yorta Yorta and Barapa Barapa Elder and Uncle Robert Carroll – Wiradyuri and Ngunnawal gibirs

‘ Climate change is already affecting the water resources in the Basin. If inflows decline but SDLs stay fixed, then the real environmental share of water shrinks over time. The consequence of not adjusting the SDLs is the inevitable decline of the ecological condition that the plan is designed to restore. Deferring SDL adjustments to a future review cycle risks compounding ecological degradation that may be irreversible within meaningful management timeframes.’

Australian Academy of Science

Many submissions, as well as the Science Roundtable, described climate change as the new operating context for Basin management and said it should be embedded across SDL assessments, environmental watering, infrastructure, water quality and community outcomes.

‘ Climate change and uncertainty should be embedded as core assumptions … Historical water records are no longer sufficient for planning or evaluation.’

Bureau of Meteorology

‘ The impacts of Climate change should be clearly articulated and included in the 2026 Basin Plan.’

Dianne Connolly and anonymous

‘ The revised Basin Plan must treat deep uncertainty as a permanent condition of governance, not a temporary data gap. The Discussion Paper’s implicit assumption that better modelling will resolve the adaptation deficit is not supported by two decades of Basin governance evidence, is inconsistent with best available science, and fails to meet the Water Act’s requirements for climate risk management.’

ANU Institute for Water Futures

‘ [Climate change is] the dominant system-scale challenge facing the Murray–Darling Basin.’

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

‘ Without embedding robust climate science and ecological evidence into its foundations, the Murray–Darling Basin Plan risks systematically underestimating both future water scarcity and ongoing environmental degradation, leaving communities, ecosystems, and industries exposed to escalating and compounding climate risks.’

Inland Rivers Network

Climate adaptation

We heard significant feedback telling us that future Basin management needs to deal more clearly with hotter, drier and more variable conditions.

‘ The Basin will move through “a very complex series of typical conditions and extreme drought and extreme flood” … ’

Science Roundtable participant

This included calls for more future-ready modelling, regular updates to climate science and clearer testing of what environmental, social and economic outcomes are realistic under different climate futures.

> ‘ **[Future governance should be] explicitly designed for uncertainty rather than assumptions of historical stationarity.’**
>
> CSIRO

> ‘ **[This is an opportunity to use] the latest science, monitoring, climate evidence, cultural knowledge and community experience.’**
>
> NSW Department of Climate Change, Energy, the Environment and Water

Many submissions, including from several peak bodies, supported adaptive management, scenario planning and better use of science. Many submissions supported improved climate science and better scenario testing, but differed on how that evidence should influence SDLs, water recovery, thresholds and future Basin objectives.

> ‘ **Planning needs to avoid over-reacting to the “noise” of variability while still responding early to emerging risk.’**
>
> Science Roundtable participant

> ‘ **This requires moving from reliance on historical hydrology to forward-looking climate scenarios, enabling dynamic adjustment of ecological targets and clearer articulation of risk tolerance and trade-offs. Transparent frameworks and decision principles are needed to guide these choices and maintain trust.’**
>
> Murray Darling Association

Driving the Lachlan Valley Way between Hillston and Hay, NSW.

Many submissions recommended an approach that took uncertainty into account, suggesting clearer risk appetites, risk tolerances, monitoring signals and triggers in the Basin Plan.

> ‘ **Currently, Basin Plan objectives are framed in largely deterministic terms […] with limited guidance on how decisions should be made under uncertainty.’**
>
> Independent Hydroclimate Scientific Expert Panel

> ‘ **We believe the paper is lacking proactive approaches such as forecasting, “no-regrets” actions, and integration of climate scenarios (beyond direct stressors) into modelling e.g. future impacts under various drought, flood, intense storm scenarios.’**
>
> NRM Regions Australia

> ‘ **A critical gap in the current framework is the lack of proactive planning for drought and low allocation scenarios. While current conditions may be favourable, history demonstrates that water availability can change rapidly. Growers require certainty and forward visibility to make informed decisions about planting, investment and risk management. The Basin Plan should include clear trigger points and response strategies for different water availability scenarios. Without such mechanisms, growers are forced to respond reactively to changing conditions, increasing financial risk and reducing confidence in the system.’**
>
> Fruit Growers Victoria Ltd

Sharing of climate risks

Several people raised concerns that climate risk is not being shared evenly, saying that environmental water and planned environmental water are carrying a disproportionate share of the impact as water availability declines.

> ‘ **Do we want to see equal sharing of impacts of climate change across different parts of the system? What is an appropriate share?’**
>
> Environment, Tourism, Fishing and Recreation Roundtable participants

> ‘ **Individual states or irrigation operators acting alone cannot achieve system-wide outcomes. Achieving Basin-scale and system-wide benefits requires coordination, shared modelling platforms, shared data systems, and governance arrangements that allow for joint decision-making and risk sharing.’**
>
> One Basin CRC

Many irrigation, agricultural and regional submissions were concerned that climate change would be used to justify additional water recovery or more restrictive rules without enough evidence, consultation or assessment of social and economic impacts. They called for stronger evidence, multi-scenario modelling, socio-economic assessment, compensation where reliability is reduced, and clearer principles for sharing climate risks across users.

‘ For this reason, a precautionary approach to further changing SDLs is required, being cautious of potentially unnecessary expenditure or socio-economic impacts … ’

National Irrigators’ Council

Environmental objectives under climate change

Some submissions raised whether some Basin Plan objectives remain achievable under future climate conditions, regardless of how much water is recovered. They said the Review should be prepared to revisit assumptions from 2012 where climate realities mean objectives may no longer be realistic. This included calls to consider whether key environmental assets can be saved or should instead be transitioned, especially at the end of the system.

‘ It wouldn’t matter whether you’ve got 100 gigalitres or 1000 gigalitres, you’re never going to achieve it.’

Agriculture Roundtable participant

‘ Environmental objectives must be evidence-based, achievable, and adapted to the climate conditions the Basin now faces, rather than based on assumptions that may no longer be realistic.’

Steph Cooke MP, NSW Shadow Minister for Water

‘ Basin Plan 2.0 needs to prioritise the identified wetland areas because not all of them will be able to be saved in another millennium drought.’

Sally Dye

Town water security and drought preparedness

Many submissions said climate change increases the need for stronger town water security planning and better drought preparedness. They raised concerns about towns, small communities and regional industries facing longer dry periods and more pressure on water supplies. Submissions from local governments consistently raised this issue across the Basin.

Submissions called for more resilient infrastructure, better planning for extreme events, alternative water sources and clearer roles for governments. Many said climate adaptation should include practical support for communities, not just changes to water rules.

‘ Climate change is happening and we have to act fast … we need solutions now to protect our future.’

Baaka Mob

Initial Sustainable Diversion Limit (SDL) Assessments

About this theme

As part of the Basin Plan Review, the MDBA completed initial assessments of whether current sustainable diversion limits (SDLs) reflect an environmentally sustainable level of take (ESLT). SDLs are the limits on how much water can be taken from Basin rivers and groundwater systems for consumptive use, while still leaving enough water for the environment.

This theme covers what we heard on these initial assessments, particularly the 11 at-risk units. As part of the Discussion Paper, the MDBA encouraged submissions with additional lines of evidence to come forward.

What we heard

Perspectives on initial assessments

Across organisations and individuals, there were diverging views about whether SDLs were meeting an ESLT.

Many submissions expressed the view that existing settings are stable and appropriate.

> ‘ **... after more than three decades of reform, the Basin has reached a point where policy stability is essential, further water recovery from agriculture is not justified by the available evidence, and future effort must shift fom water recovery to outcomes-focused water and land management.’**
>
> Jemalong Irrigation Ltd

> ‘ **No further changes to SDLs (including SDLAM-adjusted SDLs) are needed. This means no more water recovery, via any means.’**
>
> National Irrigators’ Council

Others said SDLs should be reassessed, arguing that they do not support environmental outcomes under current conditions or even under historical climate conditions.

> ‘ **Under the Water Act, SDLs must reflect an ESLT – defined as the level of take that does not compromise key environmental assets, ecosystem functions, or the productive base of the resource. Current extraction levels exceed this threshold. Ecological decline across the Basin is direct evidence of this failure.’**
>
> Australian Conservation Foundation, Humane World for Animals, the Wilderness Society and WWF Australia

‘ The Murray–Darling Basin Authority’s assessment of whether the Sustainable Diversion Limits represent an Environmentally Sustainable Level of Take is thoroughly deficient. We object in the strongest terms to a circumstance in which First Nations groups have to expend limited resources to respond to the unscientific process on offer in the Basin Plan review. The assessment of Sustainable Diversion Limits is completely flawed.’

Murray Lower Darling Rivers Indigenous Nations

Some submissions conducted their own analysis of the SDL assessments, notably National Irrigators Council and the NSW Irrigators Council. Other submissions provided links to and copies of their own technical evidence and information to inform the final assessments.

‘ The Academy offers to convene scientific expertise to provide science advice to the MDBA to support the Review process.’

Australian Academy of Science

‘ Our recommendations are offered in the spirit of genuine collaboration toward a revised Plan that can meet the scale of the challenge Australia faces in the Murray–Darling Basin. We would be delighted to follow up this written submission with a presentation or seminar at the MDBA office.’

ANU Institute for Water Futures

These included Basin government submissions, which presented diverging views on the initial SDL assessments and sought to engage further on the MDBA’s findings.

‘ Queensland does not agree with the Authority’s assessments that there are local risks in the Queensland Border Rivers Alluvium, Upper Condamine Alluvium Tributaries or Upper Condamine Basalts. All three SDL units have management rules under accredited WRPs and Queensland has not identified any risks since the rules were introduced.’

Queensland Government

Groups working together at the 2026 Basin Leadership Summit.

A few submissions challenged the SDL assessment methodology.

> ‘As outlined in this submission, it is recommended that further hydrological modelling and climate analysis be undertaken by the Authority to assess whether increased water recovery and/or improvements in environmental water delivery could reduce risks for the CLLMM (Coorong, Lower Lakes and Murray mouth), as well as for other key sites across the Basin.’
>
> Government of South Australia

> ‘Data and methods used in the initial SDL condition assessment have relied on coarse, infrequently collected indicators that do not capture key local observations, such as native fish movement and recruitment in Victorian tributaries.’
>
> Department of Energy, Environment, and Climate Action, Victoria

Perspectives on initial groundwater SDL assessments

Some submissions supported keeping groundwater SDLs unchanged.

> ‘Three groundwater SDL units have been flagged as needing more work to meet an ESLT, namely the Lower Namoi Alluvium, Upper Namoi Alluvium, and Lower Gwydir Alluvium. NSWIC understands that across most of these units, drawdown is not a widespread issue, with only small hot spots causing some concern. Despite this, both valleys remained under the SDL for take between 2012-2023.’
>
> NSW Irrigators’ Council

Others raised concerns about falling groundwater levels, climate change and risks in particular aquifers.

> ‘We cannot continue with the same Plan which is clearly not working. Climate change has exacerbated the drying of the landscape, the loss of groundwater and reduction of flows in the river system, but it has not been factored into the Plan. This needs to change.’
>
> Sydney Knitting Nannas and Friends

The NSW Government argued that a pathway to review and potentially increase SDLs is required in some low-risk groundwater sources.

> ‘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.’
>
> NSW Department of Climate Change, Energy, the Environment and Water

Issues were raised in areas including the Mid-Murrumbidgee Alluvium, Wagga Wagga, Moree, the Lower Gwydir, Namoi, the Border Rivers and Queensland Basin communities. Several submissions called for more investigation, stronger evidence, peer review and better engagement before any groundwater SDL changes are made.

> **'GWCC has increasing concern regarding groundwater availability and longterm sustainability within the Murrumbidgee catchment, particularly in the Wagga Wagga region. Recent groundwater modelling undertaken by GWCC indicates continued decline in aquifer levels, a trend likely to be exacerbated by climate change, increased demand and reduced recharge.'**
>
> Goldenfields Water County Council

Climate change and future SDL settings

Many submissions shared concerns that SDLs and Basin Plan settings need to better account for hotter conditions, lower inflows and more variable weather and change now. Some called for SDLs to be recalculated or made more flexible so they can respond to future conditions.

> **'The Review acknowledges that the Basin is becoming hotter and drier, with declining runoff and increased variability. However, the decision not to propose changes to SDLs in response to climate change is difficult to justify.'**
>
> Professor Barry T Hart

> **'A system that marginalises First Nations, prioritises extraction over sustainability, and ignores climate realities is not world-leading – it is failing.'**
>
> Yuwaalaraay Euahlayi Aboriginal Corporation RNTBC

Central to the multiple submissions affiliated with the Conservation Council of South Australia and the Murray–Darling Conservation Alliance was that water recovery targets should take climate change into account.

> **'We need to reduce how much water we are taking from the river, taking into account the escalating impacts of climate change, and we need to accurately measure progress. Water recovery should deliver water through transparent, reliable methods rather than through offsets from water infrastructure or efficiency projects.'**
>
> Murray Darling Conservation Alliance

Other submissions said climate change should be considered through regular reviews, clear triggers and better modelling.

> **'[T]he MDBA needs to produce updated climate modelling for ESLT assessment which captures sub-catchment variability and extreme event sequencing, and which applies hydroclimate projections directly rather than through coarse scaling.'**
>
> Dr Emma Carmody, Commissioner for the River Murray – South Australia

The MDBA collaborated with Country Women's Association to host meetings across the Barwon-Darling.

Several submissions warned against relying too heavily on uncertain long-term climate projections. They said these projections should not be used alone to support major short-term policy changes.

> **'NSWIC prefers the next ten-year period to be one of stability in water availability, and do not see imminent risks from climate change impacts (noting that projecting year-on-year variations in climatic conditions ten years forward is a practically impossible task.'**
>
> NSW Irrigators' Council

> **'The Peel Valley Water Users think that the long term predictions of impacts of climate change need to be treated with some caution. Trying to base our current policy on some view of what might happen in the future can be very problematic.'**
>
> Peel Valley Water Users Association

Methods, evidence and science

Many submissions wanted the initial SDL assessment process to be easier to understand and involve communities more. Suggestions included short issue papers, local consultation and social and economic assessment before major SDL or rule changes.

They asked for clearer information about the models, data, assumptions and methods used in the assessments. They also wanted the evidence to be shared in a way that communities can follow.

Many submissions said SDL assessments should include First Nations knowledges and that Cultural indicators should be part of how sustainability is understood.

Several submissions recommended independent oversight of the evidence base.

> ‘ **The 2036 review should include a formally constituted independent expert panel with a mandate to assess the MDBA’s SDL methodology, review the quality of its evidence base, and provide a published assessment of whether the MDBA’s recommendations are supported by the evidence.’**
>
> Border Rivers Food and Fibre

Others provided views about the comprehensiveness of the evidence base or whether ‘best available science’ was used.

> ‘ **The science and analysis informing the Basin Plan Review is dominated by hydroclimatic modelling (with known weaknesses), environmental assessments (based on very limited data), and some economic assessments. Social assessments and integration of First National science and knowledge to-date are inadequate. For these reasons, we do not consider the assembled body of information is fully fit for the purpose of informing Basin Plan Review decisions.’**
>
> William Young, Samantha Capon, Sue Jackson, Troy Meston, Rebecca Nelson, Avril Horne, Nick Bond

> ‘ **The expert elicitation process uses a qualitative method to address what is fundamentally a quantitative question: whether SDLs do or do not reflect an ESLT. The method is therefore scientifically inappropriate to address the question.’**
>
> Matthew Colloff and Jamie Pittock

2026 MDBA Basin Leadership Summit participants working together.

SDLAM, Basin Plan delivery and sequencing

Some submissions linked SDL assessment to the delivery of existing Basin Plan commitments.

They said Sustainable Diversion Limit Adjustment Mechanism (SDLAM) projects, constraints measures and other commitments should be completed before any further changes to SDLs are contemplated and more water recovery considered.

> ‘ The Discussion Paper and associated SDL Assessments clearly show that water recovery alone is realising diminishing returns. It is therefore time to prioritise other legislated outcomes over recovery. Remaining funds must be focused on community supported constraints measures, including infrastructure maintenance, environmental works and complementary measures such as fish passage, rather than chasing further water recovery for marginal gains.’
>
> SunRice Group

> ‘ The Basin Plan Review should therefore rule out any downward adjustment to SDLs and instead prioritise investment in community supported constraints management, complementary measures and operational reforms that address the actual drivers of remaining ecological shortfalls.’
>
> Ricegrowers’ Association of Australia

Other submissions asked for a halt to current implementation while the review was underway.

> ‘ Before any further recovery is pursued, there must be a clear, independently verified accounting of total water recovered to date. This should include all direct and indirect measures that impact water availability, not just those traditionally classified under headline recovery targets.’
>
> Helen Dalton MP, Member for Murray

> ‘ Continuing to buy water during the review tells our communities that the outcome is already decided. It makes people question why they should spend time preparing submissions at all.’
>
> Anonymous submission

Native fish, native animals and carp control

About this theme

This theme covers what people said about the decline of native fish and other aquatic animals across the Basin, and what should be done to support recovery.

We received a high volume of submissions on carp and carp control, many of them highly emotional. They described their experiences with carp and the destruction they had seen, expressing overwhelming support for action to be taken to address the problem.

What we heard

Native fish decline and river health

Some people described fish deaths as one of the clearest and most distressing symptoms of poor river health.

> **'Constraints relaxation has stalled, and barriers to the natural flooding that is necessary for getting water to wetlands and floodplains remain in place. Toxic algal blooms, mass fish kills, declining waterbird and fish populations, and reduced water quality all point to a river system under severe stress. Climate change is adding further pressure, bringing hotter temperatures and less water flowing into rivers.'**
>
> Murray–Darling Conservation Alliance

> **'Mass fish deaths are deeply distressing to Traditional Owners.'**
>
> Ngemba, Ngiyampaa, Wangaaypuwan, Wayilwan Aboriginal Corporation RNTBC

A Basin-wide approach

Many people recognised that local fish recovery actions have been effective, but Basin-wide recovery remains uneven. They pointed to continuing pressure in the Barwon-Darling, Lower Darling-Baaka, Murrumbidgee, Coorong and other systems.

> **'We've seen that even though we've recovered a lot of water … We're not seeing a Basin-wide improvement in native fish populations. There are some sites where we are seeing improvements, but … that's probably not what we would have expected if we'd recovered this amount of water.'**
>
> Science Roundtable participant

Murray, a giant cod sculpture, created in 2019 by artist Dion Cross. The sculpture sits along the Balonne River, St George, Qld.

Submissions wanted clearer priorities, implementation pathways, funding, accountability and reporting.

> ‘ **Across multiple chapters, the Review identifies appropriate directions but provides limited detail on how these will be implemented, e.g. Native fish recovery.’**
>
> Professor Barry T Hart

Some submissions supported a Basin-scale native fish recovery framework that combines flow management, habitat restoration, fish passage, carp control, stocking, monitoring and infrastructure management.

> ‘ **Coordinated action across flows, habitat and infrastructure requires stable investment and long-term planning comparable to the commitment applied to water recovery itself. The next phase of the Basin Plan should therefore treat native fish recovery as a core Basin outcome, supported by sustained funding and a coordinated Basin scale framework rather than periodic initiatives.’**
>
> Australian River Restoration Centre

> ‘ **Many native fish species migrate long distances across multiple catchments during spawning events. However, the Basin contains an estimated 10,000 barriers to fish movement, including dams, weirs and regulators. Restoring connectivity through fish ladders, fishways and removal of redundant barriers will significantly improve migration success and recruitment of native fish populations. Fish and other aquatic biota are extremely important to YEAC and all Aboriginal First Nation Peoples!’**
>
> Yuwaalaraay Euahlayi Aboriginal Corporation RNTBC

Water quality

We heard that poor water quality can overwhelm the benefits of well-timed flows, and recovered water, and that achieving Basin-scale ecological improvements for native fish requires a water quality strategy.

> ‘Greater emphasis on the condition of the river itself, including water quality, river bank condition, in-stream beaches, sedimentation and carp which affect local fish species and river health.’
>
> Warren Shire Council

Submissions raised concerns about low dissolved oxygen, blue-green algae, blackwater events, salinity, chemical residues, forever chemicals, sedimentation, acidification and poor visibility in rivers.

> ‘Between December 2018 and January 2019, three huge and catastrophic deaths of fish occurred in the Lower Darling ostensibly by the drought, low oxygen levels in the water and algal blooms. What was not included in the possible causes is the heavy and constant use of synthetic fertilisers in the growing of cotton. These “nutrients” are the key driver for cyanobacterial (blue-green algae) to flourish, in hundreds of locations including creeks, lakes – and dams.’
>
> Pennie Scott

Carp control

A high volume of submissions described carp as a major pressure on native fish, aquatic plants, water quality and river health. First Nations peoples also shared the Cultural impacts of carp.

> ‘Carp control/suppression/reduction is a major issue, particularly for riverine communities (ie: as opposed to policy-making communities). Though very difficult, this must be tackled at some stage, because otherwise landowners and river people will remain disengaged and discouraged.’
>
> Dr Adam Kereszy

> ‘Effective carp management is essential for native fish recovery, anecdotal evidence says “that only catching carp now is creating a new form of genocide, so Indigenous people are not passing down stories of fish and not going to the river as they have done for thousands of years, forced to change their diet and an overwhelming feeling of loss, despair and dispossession of the power to do anything”.’
>
> Cultural Advisory Group – Native Fish Recovery

> ‘There is potential to explore practical solutions … mechanical systems for fish traps to manage carp populations … more controlled and sustainable.’
>
> Brenton Rigney (River Murray & Mallee Aboriginal Corporation)

On Country Support team during the Basin Plan Review Discussion Paper consultation period, Narran Lakes, NSW.

> ‘ Invasive carp remain a major, unresolved constraint on native fish recovery without a coordinated basin-scale program to reduce carp populations. As native fish recovery is a key objective of the basin plan and, carp are a major impediment to meeting this objective, future investment in the Basin Plan must include a clear and measurable commitment to implement an integrated carp management plan.’
>
> VRFish

However, submissions differed on the best response.

There were a variety of views on the carp herpes virus. Some people and organisations called for its immediate use, with the Victorian Fisheries Authority seeking a commitment to release the carp herpes virus by 2028.

> ‘ The foremost concern of Victorian recreational fishers is the lack of resources allocated towards the management of invasive European Carp and we join a chorus of state and federal agencies seeking to undertake measures to control carp numbers across the basin, through a funded National Threat Abatement Plan.’
>
> Victorian Recreation Fishing

Others warned that the success of the virus was uncertain, and that a broader toolkit was required.

> ‘ Carp are best understood as a “last fish standing” – occupying ecological space left by more sensitive native species. This has major policy implications. Policies focused primarily on Carp removal, without addressing water quality and system drivers, are unlikely to achieve ecological recovery. Even complete removal of Carp would not restore ecosystems without improvements in: Water quality, Habitat condition, Flow regimes.’
>
> Seafood Consumers Association Limited

Fish passage and cold-water pollution

Submissions raised barriers to fish passage such as dams, weirs, regulators, pumps and diversion points. They said these can block movement, interrupt breeding cues, fragment populations or draw fish and larvae into irrigation infrastructure.

> ‘ **Let them move up stream, that’s their nature.’**
>
> Wilcannia Tourism Association

> ‘ **Cold water pollution … must be addressed to minimise further threats to native fish populations … including species like yellow belly and mussels.’**
>
> Gomeroi Applicant

Roundtable participants said infrastructure should be designed and operated to support ecological outcomes.

> ‘ **Make the infrastructure more environmentally friendly with fluctuation and fish habitat.’**
>
> Environment, Tourism, Fishing and Recreation Sectors roundtable participant

Irrigator submissions pointed to infrastructure that helped, not hindered, native fish survival.

> ‘ **In high-flow years, Murray Irrigation’s infrastructure has been used to create oxygenated refuges for native fish, as the large floods moving through our footprint were causing poor water quality.’**
>
> Murray Irrigation

Others cautioned that infrastructure cannot substitute for environmental water.

> ‘ **Fishways are useless when there is no water.’**
>
> CWA Ladies and Husbands from Goodooga Barwon-Darling regional tour

We also heard about the harm caused to fish, particularly eggs and juveniles by cold water pollution, which occurs when water storages release water from deep within the dam that is much colder than river water.

> ‘ **Support and prioritise native fish breeding cycles, and decreasing the prevalence of carp breeding aggregations. This also includes investigating the long-term impacts of cold-water pollution caused by of water releases from lower outlets of storage reservoirs during native fish recruitment periods.’**
>
> VRFish

Breeding, restocking and threatened species recovery

Several submissions supported breeding, restocking and species reintroduction programs, particularly for rare and threatened native fish.

> ‘ **Get the native fish and breed them. Get rid of the carp. Build up the Cod and Yellow-belly nations. Get them in a place where they can breed. Initiatives such as filters over pumps can save fish. We can then save them and put them in the right place.’**
>
> Ngemba/Murrawarri Elder Uncle Phil Sullivan

> ‘ **One thing that we can introduce back in there is our catfish. Catfish that’s gone because of the carp. We don’t no longer get catfish anymore in the Baaka system.’**
>
> Baaka Mob

The Victorian Fisheries Authority said Victoria’s stocking efforts have helped restore some self-sustaining species and called for threatened native fish breeding and responsible stocking to be recognised as an important recovery intervention.

However, others were cautious about relying too heavily on stocking.

> ‘ **The stocking of native fish is not a solution to bringing back native fish populations in the MD Basin. You can stock as much as you like but such practice is highly unlikely to be successful until the fish habitats you are stocking are returned to good health and maintained that way and protected in perpetuity.’**
>
> Graham Pike

Arnold is o-fish-ially the largest Murray Cod around, located on Curlewis Street, outside the railway station in Swan Hill, Vic.

Habitat

Many submissions called for habitat restoration to be placed at the centre of native fish recovery. This included restoring riparian vegetation, reinstating snags, creating deep pools, protecting refuge pools, stabilising riverbanks, reconnecting wetlands and floodplains, improving water quality and managing stock access to waterways.

> **‘ Breeding and re-stocking of native fish species … along with habitat restoration and fish passage infrastructure.’**
>
> Ngemba, Ngiyampaa, Wangaaypuwan, Wayilwan Aborginal Corporation RNTBC

> **‘ Generally, the main cause of the severe decline and loss of native fish populations in the Basin is the destruction or degradation of their natural habitats, including those habitats needed for successful spawning/ breeding. Consequently, the main aim in restoring native fish populations should be to rehabilitate, maintain and then protect Basin native fish habitats on the basis of the proven axiom that if we look after their natural habitats, the fish will look after themselves.’**
>
> Graham Pike

Roles, responsibilities and local partnerships

Several submissions said native fish recovery depends on collaboration between governments, and on farmers, landholders and local communities being treated as partners.

> **‘ Governments across the Basin need to work more collaboratively to reduce carp populations and improve native fish habitat.’**
>
> Walgett Shire Council

Submissions told us that local delivery, knowledge and landholder partnerships are essential to practical native fish recovery. Fish and river restoration outcomes depend on private land, riparian zones, wetlands, floodplains and irrigation infrastructure.

> **‘ Ecological restoration on that land cannot happen without the active partnership of the farmers who own and manage it. This requires a fundamental shift in how we think about farmers’ relationship to environmental outcomes.’**
>
> Mark Spain

Pelicans gathering at the Lake Menindee inlet regulator, NSW.

Environmental flows

We heard about the observed benefits of environmental water to fish.

> ‘ Prior to being granted the replenishment flow, the previous termination to the flow of the creek caused unmistakeable destruction to the creek and its surrounding ecosystem. The dead fish killed by the drying up of the creek also appeared to have attracted feral species including wild pigs, cats, and foxes that came in to eat what was left of the aquatic life that had perished. Without flow, the Marra Creek became a putrid wasteland of rotting fish.’
>
> Marra Creek Association

However, we also heard that high volume flows can have unintended impacts on native fish.

> ‘ The Victorian Fisheries Authority supports the need for water for the environment and irrigation for all of the multiple benefits that it provides for regional economies and floodplain ecological communities and appreciates that there are limited means by which this water can be delivered. However, the continued escalation of flows in the Goulburn system to meet these requirements is having a significant impact on the both the ecology and geomorphology, of the Goulburn River, with knock-on effects to local fish and the significant recreational fishing industry that it supports.’
>
> Victorian Fisheries Authority

Reconnecting floodplains and wetlands

Many submissions told us that native fish recovery depends on reconnecting rivers, wetlands and floodplains, not just delivering water down river channels. In the Environment, Tourism, Fishing and Recreation Roundtable, participants said many native animals, including fish, live in wetlands rather than river channels. They also said floodplain inundation is central to breeding, recruitment and food web productivity.

> ‘We need to also connect the off-river water ways at specific times to ensure real protection of our native species not just fish. Species such as the Tipinjiri (Darling River Snail) and all endangered or threatened species, both plants and animals, which relied on these systems for nourishment and health of the river system.’
>
> Murrawarri Provisional Council of State on behalf of the Murrawarri Nation

> ‘I think that connectivity from rivers to wetlands has been disrupted by reduced flows and the necessary inflow of nutrients from rivers to the land or wetlands is not occurring.’
>
> Murrumbidgee Field Naturalists

Monitoring and reporting

Many submissions said native fish recovery should be supported by better monitoring, clearer targets and stronger reporting.

> ‘Although one of the core environmental outcomes in the current MDB plan is to ensure that waterdependent ecosystems are resilient to climate change and other risks and threats including the impact of alien species, the MDB plan contains no specific targets for mitigating invasive species or other non-flow threats.’
>
> Invasive Species Council

Outdoor meeting between the MDBA, Moira Shire Council and Murray River Group of Councils’ Chief Executive, Vic.

They wanted monitoring that shows whether fish populations are recovering, whether flows are supporting breeding and movement, whether water quality incidents are being addressed and whether carp control is making a difference.

Waterbirds, mussels and other animals

Although native fish and carp were the strongest focus of submissions, some submissions and engagement participants also raised the importance of waterbirds, mussels, turtles, frogs, platypus and other aquatic species.

> **'Native fish rehabilitation and restoration is not just about building fish passageways, protecting the Murray Cod and other selected fish by Government Authorities. It should be about all the Aquatic animals of the Murray Darling Basin that rely on the river system, especially our Critically endangered and threatened species. It should be about bringing back our native totemic fish species and other aquatic plants and animals which has been devastated by the introduction of European carp into the Murray Darling Basin.'**
>
> Murrawarri Provisional Council of State on behalf of the Murrawarri Nation

Roundtable participants said waterbirds are important ecological indicators because breeding events provide visible signs of system health, and the Discussion Paper risked underplaying waterbirds by not treating them as a stand-alone theme.

Concern was also raised about the condition of the Basin's many wetlands, important breeding and feeding grounds for Australia's native birds and migratory birds.

> **'The Basin remains one of Australia's most important natural systems, but many wetlands, forests and bird populations continue to show signs of increasing stress. Incremental change will not be enough.'**
>
> BirdLife Southern NSW

We also heard calls for the platypus to be included as a Basin-scale indicator species in the Basin-wide environmental watering strategy.

> **'The drivers of platypus decline in the Basin are the same drivers the Review has correctly identified for other aquatic fauna: river regulation and flow alteration, loss of river connectivity, cease-to-flow events, cold-water pollution, habitat degradation, barriers to dispersal and climate-driven extremes. A platypus-sensitive Basin Plan is therefore not a separate agenda – it is a direct test of whether the Plan's existing environmental objectives are being operationalised well enough to deliver meaningful outcomes for the Basin's freshwater biodiversity. At present, they are not.'**
>
> Platypus Conservation Initiative

Water quality

Water quality is a complex issue with many contributing factors and a complex web of roles and responsibilities at a Commonwealth and state level. Across the Basin states, there are 18 different agencies involved in managing water quality and its differing aspects, with the Environmental Protection Agency (or equivalent) in each state also holding an important role.

About this theme

Water quality refers to the condition of water in rivers, lakes, wetlands and groundwater systems, as well as the water in people's homes and businesses. It also includes issues such as salinity, turbidity, nutrients, pollutants, algal blooms, low oxygen events, temperature, sediment, chemicals and contaminants.

This theme covers what submitters said about protecting and improving water quality across the Basin. It includes views on water quality targets, First Nations cultural values, tourism, agriculture, river operations, monitoring and the need for stronger catchment-scale action.

All submissions on this topic are summarised, noting that the Basin Plan's existing water quality focus is built around the historical program of salinity management.

What we heard

Water quality is a health and safety issue

We heard some powerful examples in our engagement and submissions of how poor water quality affects daily life, particularly along the Darling River.

> **'A young mother [name redacted] gave birth to her third child by way of caesarean at Mildura Hospital however was advised not to return home for at least 6 weeks as she was not to use the Pooncarie water as she would more than likely end up with severe infections if her wound was not fully healed. She also could not bath her baby in the water for 12 months as the baby would immediately break out in rashes. This was also confirmed by many mothers living along the Darling River from Menindee to Wentworth. [She] ended up getting a Motor home for the six weeks so she could shower in healthy water as she could not stay in Mildura for that time period.'**
>
> Murray Darling Association Region 4

‘ I spent a fortune on filtration systems, and they can’t even help with the issues, so I can’t imagine what would happen to those who don’t have that access.’

Event participants across the Lower Darling – Menindee Lakes Regional Tour

Cultural impacts of poor water quality

Many submissions from First Nations people and groups emphasised the link from water quality to health, culture, Country and community wellbeing. We heard poor water quality affects cultural practices, fishing, teaching, access to bush foods, protection of cultural sites and the ability to care for Country.

‘ Poor water quality continues to impact the health and wellbeing of communities … requiring a more holistic approach including cultural health.’

Gomeroi Applicant

‘ Protecting and improving water quality is essential for maintaining the Barwon River as a vital resource for traditional practices, community well-being, and environmental sustainability.’

Mungindi Local Aboriginal Land Council

‘ In my lifetime from the 1950s to the 1990s the quality of the water was good clean water. And the fish in the river, everything in the river was healthy. Like today if you catch a yellow belly, if I go home today to Collarenebri and catch and yellow belly and bring him on to Mudgee and put him in the freezer. When you squeeze the flesh on him the flesh is squishy, because of the chemicals from the cotton put into the river system and the destruction of the native water lilies from the carp that used to purify the water.’

Larry Flick – Gomeroi from Collarenabri

Backwater along the Bokhara River, Goodooga, NSW.

Water quality is central

Many submissions said water quality should be treated as a central part of Basin Plan delivery, not a secondary issue.

> ‘More water means nothing if that water is polluted, saline, and overrun with carp. The Basin Plan’s focus on water volume has come at the expense of addressing critical water quality issues that affect farmers, communities, and the environment alike. A shift toward quality-focused outcomes is long overdue.’
>
> Save Our Surroundings Riverina

> ‘Water quality should be treated as a first-order constraint on Basin outcomes.’
>
> Turlough Guerin

> ‘Water quality issues need to be addressed as a matter of urgency across the entire basin. There is evidence everywhere throughout the entire system which have cascading effects such as fish kills caused by low oxygen events. These in turn are caused by algal blooms that are using up the nutrient releases from agriculture before using up oxygen when they die … Without a good environment, we cannot have a healthy system that can support the objectives of the Plan and in my opinion, this is the number one biggest failure of the plan and will continue to worsen unless addressed as being the foundation to the entire plan.’
>
> Glen Hill Coorong Wild Seafood

Impacts on towns, agriculture and tourism

Many submissions said poor water quality has direct social and economic impacts.

> ‘Council also submits that there should be greater consideration of minimum raw water quality standards relevant to communities reliant on conventional surface water treatment. It is not enough to say that water is technically present in the system if that water is of such poor quality that treatment becomes extremely difficult, prohibitively costly, or potentially unsafe. This is a practical issue for Brewarrina, not a theoretical one.’
>
> Brewarrina Shire Council

Some submissions and consultation participants raised concerns about salinity and poor water quality as a risk to agriculture and regional communities.

> ‘This isn’t just about towns running out of water, it’s also about not having a boundary, biosecurity issues with different breeds of sheep, disease can be transferred across [properties], the Lower Darling [River] always used to run.’
>
> Event participant, Lower Darling – Menindee Lakes Regional Tour

Checking samples at the Local Land Services native fish workshop in Lake Cargelligo, NSW.

Tourism submissions said poor water quality affects visitor experience, river access, recreation, fishing, houseboats, kayaking, birdwatching and nature-based tourism.

> ‘ **Tourism responds directly to environmental conditions and river usability. When water quality deteriorates, when fish populations decline, when the Murray Mouth closes or when algae blooms force closures, tourism operators and visitors experience these outcomes immediately and tangibly.’**
>
> Murray River, Lakes and Coorong Tourism Alliance

Regional Tour participants also linked poor water quality and reduced flows to increasing farm management and biosecurity risks.

Water quality targets

Many submissions called for clearer water quality targets and stronger reporting against those targets. Some wanted measurable reductions in salinity, pollution and carp-related impacts. Others wanted better reporting on dissolved oxygen, turbidity, nutrients, algal blooms, pH, salinity and contaminants.

Submitters raised concerns about inconsistent monitoring, different reporting approaches across jurisdictions and unclear links between water quality data and Basin Plan decisions.

> ‘ **Poor water quality governance across government agencies creates duplication, inefficiency and unclear accountability. A clear publicfacing map of water regulation responsibilities across Commonwealth, state and local levels is urgently needed.’**
>
> Walgett Shire Council

‘ There is no acknowledgement or action in the water quality section about integrated management of water quality data. The Cth Water Act gave the Cth per BOM a statutory remit to manage water data (including water quality). States and some other agencies have been reporting water quality to BOM for over 10 years but there is no sign of a coordinated storage and reporting mechanism for public access to the data.’

Paul Webb

Several submissions also called for more accessible reporting so communities can understand what is being measured, what is changing and what action follows.

First Nations peoples’ submissions also supported improved and localised water quality targets, monitoring and reporting. Concerns about the lack of accountability for water quality were also raised.

‘ The Basin Plan is vital because protecting and improving water quality must remain a priority. In the past, my mother recalls a time when the River Murray was so clear you could see your feet even when standing knee-deep in the water. This highlights how much conditions have changed and why action is needed … Aboriginal Waterways Assessments are also essential, as they allow First Nations people to evaluate the health of rivers and floodplains, Burials Cultural significate sites while working alongside departments such as DEW, Aboriginal Waterways Assessments are also essential, as they allow First Nations people to evaluate the health of rivers and floodplains … ’

Brenton Rigney (River Murray & Mallee Aboriginal Corporation)

Pollution, nutrients and sediments

Many submissions raised concerns about pollution entering Basin water systems. The issue of pesticides entering river systems was raised repeatedly.

‘ Immediate and long-lasting effects of persistent inorganic compounds cannot be solved by increased water volumes in the system. The often repeated saying of “the solution to pollution is dilution” does not apply when so many of the compounds are bioaccumulative and non-degrading.’

Community Overspray Group

‘ … it is a must to have more, but serious discussions about the chemicals that is being used in the water systems, ground and surface. as you know that contaminated water is unhealthy not only for humans but for wildlife, pets and environment in general.’

Uncle Arnold James Boney

We heard that water quality pressures include nutrient loads, algal blooms, hypoxic events, sediment, turbidity, microplastics, PFAS (per- and polyfluroalkyl substances) and cumulative urban, industrial and agricultural runoff.

> ‘ Water quality issues throughout the entire Basin need to be addressed, particularly the nutrient load, agricultural pollutants including fertilisers, pesticides and herbicides and forever chemicals e.g. PFAS.’
>
> River, Lakes and Coorong Action Group

> ‘ [D]uring the peak of the 2019 Tinderbox drought, insufficient held environmental water deliveries along the Barwon–Darling mobilised sediments, nutrients and salinity from the largely dry riverbed into the Brewarrina weir pool. The outcome was stagnant water, algal blooms and high salinity in the weir pool, making the raw water difficult to treat effectively and worsening local supply conditions.’
>
> Brewarrina Shire Council, NSW Alliance of Western Councils

> ‘ Improving baseline water quality increases the ecological effectiveness of environmental water and reduces long-term system risk.’
>
> SA Water Innovation Pty Ltd

Some submissions said pollution should be addressed at its source. Others suggested treatment solutions, natural filtration, better wastewater management, environmentally friendly toilets at high-use recreation sites, and stronger regulation of activities that affect water quality.

Salinity and salt management

We heard concerns about salinity in almost every region we visited. Some people recognised salinity management as an important achievement under Basin reforms.

> ‘ Salinity itself, salinity management, has been one of the one of the great achievements across the basin. But there is still more work to do – don’t take the foot off the accelerator. But it’s improved vastly, but broader water quality issues still play the Basin and we see that play out.’
>
> Science Roundtable participant

Others said salinity remains a risk for rivers, wetlands, irrigators, stock and domestic water users, and end-of-system outcomes.

Some submissions supported continued investment in salt interception schemes and salinity monitoring. Others asked for clearer salinity targets that were more directly linked to flow management, river operations and end-of-system outcomes.

> ‘ The Basin Plan Review should establish clear water quality targets including measurable reductions in salinity, pollution, and carp populations. Without addressing quality, increasing quantity alone will not deliver the environmental outcomes the plan promises.’
>
> Matt Barker

Algal blooms and low oxygen events

Many submissions raised concerns about algal blooms, low oxygen events, fish deaths and public health, linking these events to stagnant water, reduced flows, hotter conditions, nutrient loads, floodplain processes, degraded catchments and river operations.

> ‘ **It is clear that poor water health, mass fish deaths, and drought have devastating impacts on communities and their way of life.’**
>
> Alfred Priestley

Several raised recent or local examples, including Lake Wyangan, the Darling–Baaka, the Coorong, Lower Lakes and Murray Mouth, and the Lower Darling. The submission from Young Voices for the Basin included accounts of degraded river conditions and concerns about blue-green algae alerts in the Darling–Baaka.

> ‘ **I live on the river but I haven’t been able to swim in it for months due to the poor water quality. My little brother Michael came up for Easter and I had to explain to him that not even the dogs can go near the water because the Darling Baaka is sick here. Last week we were put on red alert for blue green algae and a hazard sign was put on our driveway. I’m lucky enough to live alongside the river, but everyday I walk outside and am faced with a sickly sight, a river that needs help.’**
>
> Kate McBride, Young Voices for the Basin

Walking along Penelco Channel towards the offtake at Redbank Creek, Menindee, NSW.

Sunset on the Mildura foreshore, Vic.

River operations and infrastructure

Several submissions linked water quality to how rivers, lakes, barrages, weirs and environmental water deliveries are operated. Some submissions said environmental water can improve water quality, support salinity management and create refuge areas for native fish.

> ‘Increased freshwater flows through the barrages have maintained and improved the extent of optimal salinity conditions, provided critical pathways for the movement and recruitment of key diadromous fish species and improved black bream and greenback flounder populations in the Murray Estuary and Coorong, as well as small-mouthed hardyhead in the Coorong.’
>
> Government of South Australia

> ‘A part of our life has been disrupted due to the weirs and locks being installed into a system that was never designed to be put into compartments and fought over.’
>
> Cultural Advisory Group – Native Fish Recovery

Others were concerned that some flow events, overbank watering or storage operations can worsen water quality if not carefully managed. Submissions raised issues including turbidity, deoxygenated water, salinity, nutrient loads, poor-quality return flows, cold water pollution and the effect of river regulation on natural processes.

> ‘Environmental water delivery should prioritise restoring seasonal flow variability by increasing the frequency (towards 1–2-year return intervals) and duration of high and overbank flows, as these are essential for improving river connectivity, enabling floodplain inundation, and supporting ecological processes across the Basin. At the same time, persistent increases in low and medium flows should be moderated, as they contribute to poor water quality.’
>
> Anonymous submission

Integrated catchment management

Many submissions said water quality needs stronger catchment-scale action. Integrated catchment management means managing rivers, wetlands, floodplains, land use, vegetation, erosion, runoff and local infrastructure together, rather than treating water quality as only a river flow issue.

Submissions called for stronger action on riparian vegetation, stock exclusion from riverbanks, erosion control, wetland and floodplain reconnection, nutrient management, habitat restoration, stormwater management and local council infrastructure.

> ‘ **The GBCMA’s [Goulburn Broken Catchment Management Authority’s] decades of integrated catchment management show that investing in complementary actions, alongside delivering environmental water, is also critical in achieving lasting environmental outcomes. A focus on salinity, nutrient management, habitat restoration and biodiversity in connected systems, directly shapes water quality and ecological health.’**
>
> Jeff Odgers

Some submissions said local governments, landholders, regional groups and First Nations peoples need funding and support to deliver water quality improvements on the ground.

> ‘ **Commonwealth investment builds on this existing regional capability and investment, it can create a genuine multiplier effect; enabling rapid delivery of Basinpriority projects and expansion or acceleration of work already underway.’**
>
> NRM Regions Australia

> ‘ **Another important issue is economic opportunities for Aboriginal communities. Too often, we are involved in consultation but miss out on long-term benefits. Expanding Indigenous employment, training, and business opportunities in water management, land care, and restoration work should be a priority.’**
>
> Malcom Brown

The NSW Government said it is developing governance options to improve the integration of land and water management to improve water quality and waterway health.

> ‘ **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.’**
>
> NSW Department of Climate Change, Energy, the Environment and Water

Coorong, Lower Lakes and Murray Mouth

Many submissions said water quality in the Coorong, Lower Lakes and Murray Mouth is a major concern, but submissions differed on the causes and preferred solutions.

Some submissions took the view that stronger freshwater flows, improved barrage management and end-of-system outcomes are needed to support water quality, ecological health and Ramsar-listed wetlands.

> ‘ We operate a commercial fishing and tourism business in the Coorong and Lower Lakes Region and endured a long history of water management challenges including the Millennium Drought. This has challenged us both personally and professionally ... ’
>
> Glen Hill, Coorong Wild Seafood

Other submissions questioned the current management of the Lower Lakes as freshwater systems and suggested alternative approaches, including more desalination plants, or changes to barrage management.

> ‘ Recognise the Basin Plan preferred focus to rely on additional Murray River flows ignores the need to invest in localised infrastructure and other regionally based solutions to address environmental issues in the Coorong, Lower Lakes and Murray Mouth (CLLMM), a position inconsistent with Ramsar Agreements that promote conservation and “wise use of resources”.’
>
> Murray Valley Private Diverters

> ‘ A more integrated, system-wide approach to environmental water management is required, rather than focusing on individual elements such as water levels or salinity in isolation. This may involve adapting the use of existing management levers, including River Murray environmental flows, barrage operations, Murray Mouth dredging practices, and contributions from Southeast flows.’
>
> Coorong District Council

Climate change and water quality

Many submissions said climate change is increasing water quality risks. Submitters linked hotter temperatures, lower flows, longer dry periods, floods, bushfire impacts, salinity, algal blooms and low oxygen events to future water quality challenges.

> ‘ Basin-wide water quality and ecological tipping points require greater prominence: While water quality is discussed, emerging evidence suggests that salinity, nutrient enrichment, hypoxia and harmful algal blooms are increasingly interacting with reduced flows and warming temperatures. It is important to consider explicit options for Basin scale water quality thresholds, early warning systems and preventative management, not just remediation.’
>
> La Trobe University

Agriculture, communities and tourism

About this theme

This theme covers what we heard during consultation from the agriculture sector, irrigation-dependent communities and the tourism sector. It looks at how the Basin Plan, and particularly water recovery, affects farms, irrigation industries, local businesses, regional services, water markets, food security and community confidence.

It also explores the tourism industry's perspective on Basin water management.

We heard strong community voices calling for more action to address water quality concerns and town water supply issues. This feedback is captured in the *Water quality* and *Town water security* sections respectively.

What we heard

Recognition of 'the missing chapter'

We heard anger and disbelief that the Discussion Paper did not include a chapter on agriculture and the sector's contribution to improving water management in the Basin. This was one of the strongest pieces of feedback we received.

> **'The review material gives insufficient attention to agriculture and the people and businesses that underpin Basin communities. This is disheartening for rural communities that have carried the practical and financial burden of past reforms, while also continuing to produce food and fibre for Australia and export markets … It reinforces a long-standing feeling in Basin communities that we are not wanted, or heard, and that participation is unlikely to change outcomes.'**
>
> Goulburn Murray Irrigation District Water Leadership Forum

Some said the Discussion Paper focused heavily on environmental outcomes and river health, but gave less attention to the people, industries and towns that depend on reliable access to water.

> **'Our small and remote shire is almost completely reliant on agriculture as our dominant industry and primary economic driver. Beyond our shire, the Basin contributes approximately $25B annually to Australia's food and fibre production. By extension, water policy, availability, cost and security directly impact our economy, employment, investor confidence, and the long-term viability of all our towns and communities.'**
>
> Balonne Shire Council

Food security

In several regional meetings and across submissions, food production was discussed not only as an industry issue but also as a national interest. People linked water policy and additional water recovery to the Basin's role in producing food and fibre, including horticulture, rice, dairy and fodder

> ‘ **Food security must be a central consideration in the Basin Plan Review … The ability to produce food domestically in a reliable and sustainable manner is a strategic national priority, and water policy decisions must reflect this broader importance.’**
>
> Fruit Growers Victoria

> ‘ **The government seems to have very little regard for and understanding of regional Australia and our nation's food availability and security. They don't seem to understand the importance of water to our communities. When Australian-grown, fresh produce is no longer available and farmers have left the land due to the unavailability and cost of water it will be too late.’**
>
> Anonymous submission

We heard that these industries are not only water users, but also employers, investors and anchors for regional communities.

> ‘ **We've got production GDP, and service GDP; Australia can't survive on a coffee shop.’**
>
> Warren Shire Council and Community Event, Macquarie–Castlereagh–Lachlan Regional Tour

Importance of productive communities

Some submissions from agricultural and regional areas said they supported the broad goal of healthy rivers, wetlands and sustainable water management. This support was often conditional on the Basin Plan also recognising the importance of irrigated agriculture, food and fibre production, regional businesses and local communities.

> ‘ **The Basin Plan was never intended to deliver environmental outcomes at the expense of communities and industries. It was intended to deliver a healthy working Basin. That means healthy rivers, resilient ecosystems, viable communities and productive agriculture. These are not competing goals.’**
>
> Gillian Fennell, South Australian beef cattle producer

> ‘ **For systems like ours, timing is everything … If access to water is restricted during a flow event, you don't get that opportunity back … It's important that any changes don't end up hitting small, family-run operations the hardest. We're often the most affected by small changes in access and flexibility.’**
>
> Anonymous submission

Wrapping up a day of Mildura meetings in front of the Mildura City Heart Mural Trail, NSW.

Several submissions said agriculture had already adapted significantly since the Basin Plan began. This included changes to irrigation practices, crop choices, water use efficiency, business planning and investment decisions.

> ‘ **The dairy industry has already made substantial adaptation and investment over the past decade, including major improvements in irrigation efficiency and water productivity. Much of the readily achievable adjustment has already been realised, meaning further reductions in water availability are likely to accelerate production losses and have direct impacts on regional economies.’**
>
> Australian Dairy Industry Council Inc

More transparency and balance

Submissions called for the Review to better explain how environmental outcomes, food production and community wellbeing can be balanced. Many wanted agriculture and regional communities treated as part of the solution, not as a competitor for water across the Basin states.

We heard water policy decisions have consequences beyond individual farms, because they can affect the availability, diversity and affordability of Australian-grown produce.

> ‘ **We’ve gotta be able to feed ourselves.’**
>
> Euston Cooperative Rural Society, Sunraysia & Wimmera Regional Tour

Permanent horticulture

Water for permanent horticulture was a recurring issue. Fruit growers and industry groups said permanent plantings are different from annual crops because they require reliable water every year. We heard that trees and vines cannot simply be turned off in dry years without long-term damage to productive capacity and capital investment.

We also heard that structural change in water ownership means irrigators rely heavily on the temporary water market for permanent plantings.

> ‘ … high-reliability water entitlements linked to land have declined by around 45 per cent between 2000–01 and 2023–24 (DEECA, 2025). As a result, many irrigators now hold only 40 to 50 per cent of the water required to sustain production in an average year, relying heavily on the temporary water market and carryover. This increasing dependence exposes growers to significant price volatility and risk, particularly during periods of low allocation.’
>
> Fruit Growers Victoria

Social and economic impacts

Many submissions said social and economic impacts of water reform should be assessed beyond the farm gate including at the local and regional scale.

Regional councils and industry groups said water recovery can remove economic capacity from communities faster than replacement strategies are delivered. They wanted stronger localised assessment of impacts on employment, council revenue, business confidence and long-term community resilience.

> ‘ Current policy settings have removed economic capacity from Basin communities faster than replacement strategies have been delivered. This structural imbalance is now materially impacting community viability, local government financial sustainability [and] long-term regional resilience.’
>
> Balranald Shire Council

> ‘ Primary Producers SA emphasises that future Basin Plan actions must not impose additional negative socio-economic impacts on communities. Where this is unavoidable, adequate compensation, transition support or other measures to assist industry and community adjustment need to be provided.’
>
> Primary Producers SA

Submissions also raised concerns about local identity, intergenerational farming, succession and community confidence. Some said uncertainty about future water availability makes it harder for families and businesses to reinvest, expand, employ staff or plan for the next generation.

‘We would also like to name something that rarely appears in policy documents. We want these farms to remain family farms. Sustained economic pressure, including water policy uncertainty, risks forcing families off properties they have worked for generations, with corporate buyers the likely beneficiaries. Family farmers contribute to their communities in ways that are hard to quantify: they sit on school committees, coach junior sport, volunteer in emergencies, and anchor the social fabric of small towns. When a family farm becomes a corporate holding, that contribution does not transfer. The community loses something it cannot easily replace.’

Goondiwindi Chamber of Commerce

This was also a strong theme in regional tours. We heard that water availability is closely linked to town confidence, schools, services, retail, hospitality, manufacturing, processing, local government viability and community identity.

‘Without water security, there’s no towns, no growth, no nothing.’

Participant in Community Chat Session in Narromine, Macquarie–Lachlan–Castlereagh Regional Tour

Some submissions called for stronger socio-economic tests before further water recovery or policy change. They wanted these tests to be transparent, locally specific and capable of identifying cumulative impacts on communities, not just direct impacts on individual entitlement holders.

Water recovery and buybacks

Water recovery, particularly buybacks, was one of the most frequent issues raised by those from irrigation dependent communities. Many submissions said past buybacks had affected irrigation districts, farm businesses and regional towns. They were concerned that further recovery would add to these impacts.

‘I am the 3rd generation of a family who has dedicated generations to growing food and fibre for our country. Government buyback devastated our community 20 years ago and the situation has only gotten worse.’

Daisy Armstrong

‘Buybacks have had their day and the balance has been struck.’

Central Downs Irrigators Limited

Several submissions preferred infrastructure, efficiency measures, environmental works and operational changes over further buybacks.

‘No more buybacks, smart infrastructure!’

Agri Business Industry Representatives, Sunraysia & Wimmera Regional Tour

Some said that any future water recovery should be contingent on demonstrated environmental benefit and should avoid disproportionate harm to irrigation-dependent communities.

Melbourne artist Heesco Khosnaran painted the Weethalle grain silos, NSW (build 1930) as a tribute to the rich agricultural heritage of Weethalle and the surrounding region.

> **'Ensure that any future water recovery or policy change is contingent on demonstrated benefit and does not impose further disproportionate harm on irrigation dependent communities.'**
>
> Riverina Winegrape Growers

We also heard some support for water recovery to continue, and for original Basin Plan targets to be met.

> **'We urge the Minister to make every possible effort to encourage greater cooperation by state governments to deliver the intent of the Basin Plan, to reverse the over-allocation of water resources and to halt the decline of Basin ecosystems. The viability of Basin communities depends on completing implementation of the Basin Plan as intended, in full if not on time, but as expeditiously as possible.'**
>
> Lifeblood Alliance

See Water recovery section for more.

Water pricing

Many submissions raised concerns about water prices and affordability. Some submissions said high temporary water prices in dry years can make it difficult for farmers to keep crops alive, particularly permanent plantings.

We heard that many farmers with permanent plantings like citrus and grapes, do not own water entitlements, and rely on the temporary market.

> **'This means water price volatility translates directly and immediately into the viability of every harvest. When temporary water trades at $20 per megalitre, our members can plan and farm. When it trades at $400, $600, or higher – as it has in recent dry years – the cost of keeping trees alive can exceed the gross value of the fruit they produce.'**
>
> Griffith and District Citrus Growers Association

We also heard that less water in the consumptive pool has significant impacts on communities, irrigation infrastructure operators and irrigators and there are fears of greater price impacts if more water is recovered.

> ‘ The Australian Bureau of Agricultural and Resource Economics and Science (ABARES) report on “The impacts of further water recovery in the southern Murray–Darling Basin” illustrates that under a 225GL buyback scenario in the southern Basin, water allocation prices will increase by an estimated 10%.’
>
> Southern NSW Irrigation infrastructure operators

Tourism sector

We had several submissions from the tourism sector in the Basin. We heard that the Basin Plan doesn’t adequately recognise tourism as a waterdependent industry or its contribution to regional economic resilience.

> ‘ The Murray River is the economic engine of our region’s visitor economy. Every paddle steamer, every houseboat, every fishing trip, every kayak adventure, every stand-up paddleboard session, every riverside camping holiday, every regional festival – all depend on a healthy, functioning river system with adequate water levels.’
>
> Murray Regional Tourism

> ‘ Tourism should be recognised as a water-dependent industry, measured as part of the economic case for Basin water management, and included in planning and policy frameworks alongside other water-dependent sectors. Getting this right will give Basin communities a more complete and accurate picture of what good water management is worth.’
>
> Murray River, Lakes and Coorong Tourism Alliance

Boating at Goolwa, SA.

Community wellbeing

Some submissions drew a link between water security and the liveability and wellbeing of regional communities.

> ‘While communities share common challenges, each local government area also faces unique and sometimes competing issues. What unites them is a deep reliance on water as the most critical resource for sustaining social, economic, cultural and environmental wellbeing.’
>
> Western Division Councils of NSW

> ‘We believe much more needs to be done by all governments to ensure the Plan structurally prescribes all water use to an ecologically sustainable level and to demand all users do their bit to support more reliable flows, better drought resilience, and more stable long-term water security.’
>
> Tamworth Gamilaroi Traditional Owner Collective

> ‘Beyond agriculture, water security plays an essential role in supporting regional liveability, tourism and community wellbeing. Water assets such as the Goulburn River, Seven Creeks, Hughes Creek and Lake Nagambie are significant regional tourism and recreation assets, attracting visitors year-round for boating, fishing, rowing, canoeing and other water-based activities.’
>
> Strathbogie Shire Council

Critical human water needs and town water security

We heard consistently across submissions that critical human water needs are the highest priority use of water and need better definition.

> ‘When basic needs go unmet, communities are forced into impossible competition with one another over what little remains, neighbour against neighbour, town against town, cannibalising themselves over access to a resource that should be a guaranteed foundation, not a prize to be fought over.’
>
> NSW Alliance of Western Councils

In Queensland, councils raised concerns about groundwater certainty for towns.

> ‘While there are mechanisms in place to provide certainty to councils for surface water security through high priority water allocations, many of our Basin councils in Queensland rely on groundwater as a primary source of drinking water supply. There is less certainty on water supply in times of scarcity when the draw on artesian water becomes constrained.’
>
> Local Government Association of Queensland

See Town water security section for more analysis on this topic.

Many submissions linked agricultural and community concerns to broader issues of trust. They said communities need clearer evidence about how Basin Plan decisions are made, how environmental outcomes are measured and whether the benefits of water recovery are matching the costs.

People asked for better local engagement, more transparent modelling, clearer reporting of environmental outcomes and stronger use of local knowledge. Some submissions said decisions should not be made through a siloed approach, and that regional communities should have a more meaningful role in assessing impacts and designing solutions.

A repeated concern was that policy uncertainty itself has an impact. Submissions said uncertainty affects investment, succession planning, business confidence and the willingness of farmers to remain in irrigation industries.

‘ Water buybacks (‘the big hammer’) has smashed everyone’s confidence.’

GMID Water Leadership Forum group, Murrumbidgee Regional Tour

Attendees participating in the Youth Leaders Roundtable, 2026 MDBA Basin Leadership Summit.

Water recovery

About this theme

This theme covers what submitters said about water recovery under the Basin Plan, including the environmental water that has already been recovered, whether more recovery is needed, the role of buybacks, and the social, economic and market impacts of future recovery decisions.

Current recovery occurring under the 450GL program is not within the scope of this review. Submissions on this topic have been provided to the Department of Climate Change, Energy, the Environment and Water where submission permission allows.

What we heard

Further water recovery is contested

Water recovery was one of the most contested themes. Submissions showed strongly diverging views about future water recovery.

> **'Frustrating for the lack of serious assessment of socioeconomic impact of water recovery on the communities with a high dependence on irrigated agriculture, and frustrating for the focus on water recovery as the primary, almost exclusive means of improving the health of rivers, wetlands and floodplains.'**
>
> Claire Miller

> **'The Queensland Government does not support water recovery for the 450 GL additional environmental water target from the Queensland Murray-Darling Basin.'**
>
> Queensland Government

> **'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.'**
>
> NSW Department of Climate Change, Energy, the Environment and Water

Most submissions recognised that water recovery has changed how the Basin is managed since 2012. They acknowledged that because of the Basin Plan, substantial volumes of water for the environment have been recovered. This has created a large environmental water portfolio that can now be used to support river health, wetlands, native fish, waterbirds and other environmental outcomes.

Many said the next phase should focus less on recovering more water and more on getting better outcomes from the water already recovered through infrastructure investment, constraints relaxation, complementary measures and better use of the existing environmental water portfolio.

View near the water monitoring station on the Bokhara River, Hebel, Qld.

Several peak irrigation submissions took the position that the Basin Plan is entering a new phase, and the focus should shift from recovering additional water toward improving how water is managed, delivered and coordinated. These submissions frequently described the next stage of reform as one focused on better water delivery and management, infrastructure and complementary measures rather than on further water recovery.

> ‘ In our view, that contemporary problem-definition is on shifting from a deep focus on water-sharing and water-quantities alone – to Integrated Catchment Management – focused on working together with communities to better integrate land and water management initiatives to optimise outcomes from the now-established water-sharing framework.’
>
> National Irrigators Council

> ‘ At this stage of implementation, the central issue for the Review is no longer whether additional volumes of water can be recovered through voluntary water purchase, but whether further recovery is justified given the disproportionate and cumulative socio-economic costs already incurred, and the uncertain environmental benefits of additional water recovery in a constrained and highly regulated system.’
>
> National Farmers’ Federation

Other individuals, First Nations peoples, environmental groups and governments argued for continued water recovery.

> ‘ More water needs to be recovered to sustain a minimum level of Basin health and be managed more efficiently for broader environmental, social, cultural and economic outcomes. Buy-backs from willing sellers have been demonstrated to be the most effective and efficient method, in value for money and volume of water recovered.’
>
> Lifeblood Alliance

‘ We ask that the Basin Plan be implemented in full as agreed, with 3,200 GL of water returned to the system, and that this figure be revised in accordance with climate science. This will best ensure that wetlands on our country receive the water flowing from our country required to sustain their values and that they are not sacrificed to compensate for the incomplete implementation of the Basin Plan.’

Burrandies Aboriginal Corporation

‘ Despite tangible evidence of environmental improvement as a result of Basin Plan water recovery, it is also clear that significant environmental challenges remain. For example, the Coorong South Lagoon remains in a degraded condition due to prolonged hypersaline and hyper-eutrophic conditions, putting waterbirds, fish, plants and invertebrates at risk if additional action is not taken.’

Government of South Australia

‘ Recover the remaining water for the environment through water buy-backs or efficiency schemes … the rivers need the water back to help it recover from the bad decisions of the past.’

Uncle Tony Lees

Many submissions supported complementary measures that help environmental water work better. These included fishways, carp control, wetland infrastructure, floodplain reconnection, water quality improvements, catchment management and better river operations.

Driving the backroads near Reids Flat, NSW.

> ‘ We welcome recognition that we need to move beyond the “just add water” approach of open tender buybacks as the primary mechanism of achieving environmental outcomes. This is something Victoria has long advocated for.’
>
> Department of Energy, Environment, and Climate Action, Victoria

Some irrigation and regional submissions said irrigation networks, managed wetlands and operational infrastructure can support environmental outcomes. They pointed to examples such as drought refuges, wetland function, fish survival and more flexible delivery options.

Several submissions supported locally driven approaches that deliver environmental, agricultural and community benefits at the same time.

> ‘ Local landholders understand the intricacies of local geography and may often be able to deliver water to environmental assets with existing pumps and channels. The Murray Darling Wetlands Working Group has been working with landholders to deliver water to private wetlands for decades, showing the success of local collaboration.’
>
> NSW Irrigators Council

Across consultation and other submissions, we heard that further buybacks should not be the default response to unresolved Basin Plan issues.

Social and economic impacts

Many submissions raised strong concerns about the social and economic impacts of water recovery, arguing that additional water recovery would deliver diminishing environmental returns while increasing social and economic costs for Basin communities.

> ‘ Continuing to pursue water recovery in this context risks allocating substantial public resources for limited environmental return. It also increases the socio-economic burden on irrigation communities without addressing the underlying drivers of ecological outcomes.’
>
> Lachlan Valley Water

In contrast some submissions presented strong views on the level of government investment in irrigation sector adjustment.

> ‘ The irrigation industry has been compensated and supported throughout the Basin Plan reform, continuing the above-mentioned structural, economic and political trends that are fundamental to Australia’s colonial history. The Australian Government has paid, or has committed to paying, more than six billion dollars to willing sellers of water since 2004. Another $3.5 billion has been paid to improve irrigator-owned assets, including privately owned irrigation schemes and on-farm irrigation infrastructure.’
>
> Murray Lower Darling Rivers Indigenous Nations

Many submissions said future water recovery decisions need stronger transparency and accountability. They wanted clearer communication about why water recovery is needed, how decisions are made, what trade-offs are being considered and what outcomes recovered water is delivering.

> ‘ **MDBP2 should include a clear community impact test for any proposed reform. That test should require governments to identify, model and publicly disclose the likely social, economic and service-delivery impacts of proposed changes before decisions are made. This should include impacts on local employment and regional businesses, agricultural production, water delivery costs, irrigation infrastructure viability, town water security, local government capacity and community wellbeing.’**
>
> Steph Cooke, State member for Cootamundra and Shadow Minister for Water and Crown Lands

The tourism sector spoke to the economic contribution of water for the environment.

> ‘ **Nature-based and river-dependent tourism provides a diversification pathway that aligns with Basin environmental objectives, strengthens adaptive capacity and delivers socio-economic benefits without increasing consumptive water use.’**
>
> Destination Riverland Incorporated

> ‘ **Tourism does not extract Basin water. It multiplies its economic value – and in the case of eco and sustainable tourism, it does so while actively minimising its impact on the natural environment.’**
>
> Murray Regional Tourism

MDBA meeting with Murray Regional Tourism for the BPR Discussion Paper consultation, Moama, NSW.

Environmental targets and outcomes

About this theme

Environmental targets are the goals or benchmarks used to monitor river, wetland, floodplain, native fish, waterbird, water quality and ecosystem health. Environmental outcomes are the real-world changes the Basin Plan is trying to achieve, such as healthier rivers, stronger native fish populations, better-connected wetlands and floodplains, and improved water quality. Some of the targets and outcomes in the Basin Plan are very detailed, catchment-specific or even species specific, while some targets and outcomes are very broad and at a Basin-scale.

This theme covers what submitters said about how outcomes seen to date, as well as how future environmental success should be defined, measured and reported in the Basin Plan.

What we heard

Differing views on current outcomes

Across engagement activities and throughout submissions, we heard mixed views about whether current Basin Plan settings are delivering environmental outcomes.

Some engagement participants pointed to evidence of outcomes including wetland inundation, waterbird breeding and healthy landscapes as important ecological and economic signals. A number of submissions also pointed to visible improvements at some wetlands, river reaches and icon sites.

2026 MDBA Basin Leadership Summit participants asking questions.

‘ Since 2009, we’ve delivered water to more than 28,500 km of rivers (over 35% of the Basin’s waterways) and 470,000 ha of lakes, wetlands, estuaries, and floodplains. This includes 11 internationally significant Ramsar-listed wetlands.’

Commonwealth Environmental Water Holder

Others said that outcomes remain uneven, unclear or insufficient, particularly for native fish, wetlands, floodplains and water quality.

‘ Environmental water recovery has been a central feature of Basin Plan implementation. While there is evidence of ecological improvement in some locations, outcomes are inconsistent and often difficult to directly attribute to watering actions.’

Darryn Clifton

‘ There is clear evidence that when water is returned to the environment, the river responds. Wetlands revive, species recover, and ecological processes begin to heal. However, these efforts remain insufficient. Only a fraction of wetlands receives the flow they require, and native species such as the Murray Cod and Macquarie Perch continue to decline. Toxic algal blooms, mass fish deaths, and deteriorating water quality indicate a system under ongoing pressure, with key ecological functions increasingly compromised.’

Forest Ecology Alliance

‘ The Authority claims that the majority of Sustainable Diversion Limits are supporting Basin Plan environmental outcomes, despite the science showing that many Basin Plan environmental outcomes are not being met and are predicted to worsen as climate change advances.’

Michael Doyle

Concerns were expressed about the cumulative impacts to the Coorong, Lower Lakes and Murray Mouth.

‘ For South Australia, positioned at the downstream end of the Murray–Darling system, the cumulative impacts of ongoing over-extraction from rivers and aquifers, inadequate environmental flows, and delayed system recovery continue to undermine the river health. Insufficient water is reaching wetlands and floodplains with consequences including toxic algal blooms, fish kills, declining waterbird and native fish populations, and deteriorating water quality.’

Conservation Council of SA

‘ Keeping the [Murray] mouth open is important for the health of the entire system. Two million tonnes of salt from upstream is expelled each year, along with nutrients. If not expelled, the salinity levels would increase all the way back upstream 250km.’

River Lakes and Coorong Action Group Inc

Volumes to outcomes

We heard that the next phase of the Basin Plan should focus more clearly on outcomes, not only water volumes.

> ‘ **The next iteration of the Basin Plan must therefore focus on how environmental water is managed, not how much more can be recovered.’**
>
> Perin Davey

Many submissions said water recovery volumes should not be treated as the main measure of success. They wanted greater focus on how environmental water is used, what outcomes it achieves and whether other tools could deliver better results.

> ‘ **The water wars must end. The Plan must be amended to focus on using current allocations as effectively as possible, rather than zero-sum transfers of water from consumptive use to environmental use. The Plan must also incorporate genuine socio-economic considerations, if it is to remain socially and politically sustainable.’**
>
> Griffith Business Chamber

> ‘ **These indicators require more than “just adding water” to address. The next steps for the Basin Plan must be moving forward to directly target these outcomes, with the right tool for the job.’**
>
> Murrumbidgee Irrigation

Some submissions also supported a stronger outcomes focus, as long as it does not weaken water recovery or reduce environmental ambition.

> ‘ **Restoring and maintaining river health must be the foremost priority, with community outcomes secondary and aligned accordingly. Outcomes must be defined by ecological condition, biodiversity, habitat function, and connectivity, not solely by water recovery volumes.’**
>
> Murray Darling Region 6

Flow timing, patterns and connectivity

Submitters said environmental outcomes depend on the timing, duration, sequencing and pattern of flows. This was particularly important for native fish, wetlands, floodplain inundation, water quality and northern Basin connectivity.

> ‘ **Environmental water is a powerful tool – but it arrives in a degraded catchment and delivers only a fraction of its potential benefit when floodplains are disconnected, riparian zones are bare, soils no longer infiltrate, and sediment loads are high.’**
>
> Southern Queensland Landscapes Board

Some submissions wanted the Basin Plan to better recognise flow pattern integrity as a measurable objective. This means looking at when water arrives, how long it lasts, whether it connects rivers and wetlands, and whether it supports ecological processes at the right time.

Some submissions also said environmental targets should show clearer links between upstream decisions and downstream ecological outcomes, especially where further water recovery or changes to river operations are being considered.

Complementary measures

Many submissions said environmental outcomes depend on more than water alone. Submitters pointed to the role of habitat restoration, fish passage, carp control, riparian repair, wetland infrastructure, floodplain reconnection, water quality improvements and catchment management.

> ‘ **Embedding complementary measures, constraints removal, and targeted infrastructure at the core of the Basin Plan will deliver lasting ecological outcomes while sustaining the communities that depend on a healthy, working river system.’**
>
> Jeremy Morton

Some thought that these measures should sit alongside environmental water as core parts of the Basin Plan, rather than optional add-ons. Others warned that complementary measures should not be used as a substitute for water where more water is still needed.

> ‘ **Non-flow measures to improve biodiversity and river health such as infrastructure works to provide fish passage or mitigate downstream effects of cold water releases from storages, in-stream snagging to provide fish habitat, restoration of riparian vegetation and removing barriers to floodplain connectivity, are important. However, these measures, referred to as “complementary measures”, are not a substitute for water recovery and should not be used to offset the need for additional environmental water. They are useful measures that are necessary for improved river health and they need to be pursued in addition to water recovery.’**
>
> Murray–Darling Conservation Alliance

Achieving balance

Many agricultural, irrigation and regional submissions said environmental outcomes should be considered alongside social and economic outcomes.

> ‘ **A forward-looking Basin Plan must recognise system diversity, explicitly account for over recovery, and align environmental objectives with economic sustainability and national resilience. Only through such an approach can it deliver enduring outcomes for both the environment and the communities that depend on it.’**
>
> Lachlan Valley Water

These submissions often supported healthy rivers, but said environmental targets should be practical, transparent and balanced with food production, regional jobs, irrigation reliability and community wellbeing.

> ‘ **Current Basin Plan settings are not adequately balancing environmental outcomes with the social and economic realities of agricultural systems.’**
>
> Australian Women in Agriculture

Targets and measurable outcomes

Many people said that, compared with the pre-Basin Plan period, the Basin Plan has improved ecological knowledge, environmental watering coordination and Basin-wide monitoring.

While some submissions said they noted the Basin Plan’s growing emphasis on monitoring, evaluation and adaptive management, many called for clearer environmental targets. Some wanted measurable targets for native fish, wetlands, waterbirds, water quality, connectivity and floodplain health. This included for key Cultural indicator species e.g. mussels, catfish and the water spider.

With sticks in his hand, a water diviner searches for groundwater in this mural, painted by Fintan Magee at Barraba, NSW.

Uncle Phil Sullivan Ngemba and Murrawarri Elder, and Aunty Rayleen Summers Murrawarri Elder with the On Country Support team, Bourke, NSW.

‘ **Establish a basin-wide ecological outcomes framework, supported by a centralised repository of ecological, water quality, social and economic data, with standardised methods to evaluate and predict relationships between flow regimes and ecological responses.’**

Australian Rivers Institute, Griffith University

‘ **Native species have declined such as decline in water spiders. Water spiders indicate the river is healthy, same as mussels. No water spiders means the River isn’t healthy. Decline noticed since the 70’s.’**

Ngemba/Murrawarri Elder Uncle Phil Sullivan

Science Roundtable participants said that plans, strategies and hydrological processes are not, on their own, proof of ecological recovery. They supported focusing less on process compliance and more on measurable ecological outcomes, including biodiversity, native fish, wetlands and floodplain health.

A common message was that the Basin Plan should not only report on actions taken, such as water delivered or projects funded. It should also show whether those actions are improving environmental condition.

‘ **The long-term sustainability of the Basin depends on precautionary, transparent and evidence-based decision-making that explicitly recognises downstream impacts and end-of-system requirements.’**

Goyder Institute for Water Research and the Coorong, Lower Lakes and Murray Mouth Research Centre

Science, monitoring and public reporting

Many submissions called for stronger public reporting.

Submitters wanted clearer information about the data, models, assumptions and indicators used to assess environmental outcomes. Some asked for independent review, peer-reviewed science and better access to the evidence behind Basin Plan decisions.

Several submissions said the public needs clearer reporting on what environmental water is achieving. This included calls for more accessible reporting on watering decisions, delivery losses, ecological responses, native fish outcomes, water quality, floodplain health and whether objectives are being met.

Some submissions also said that stronger monitoring should include community knowledge and local observations, more social science and lived experience, as well as incorporating First Nations peoples knowledge rather than only technical modelling.

First Nations peoples submissions highlighted the importance of cultural knowledge to understanding the health of the Basin.

> **'The Committee emphasises that this involvement must extend beyond planning to include the stages of implementation, monitoring, reporting and evaluation (MER). This requires not only direct participation but also the inclusion of First Nations–led measures, targets and evaluative methodologies within the MER framework for the Basin Plan but also in Water resource plans, ensuring progress and impacts are tracked and tracked through a cultural lens.'**
>
> Committee on Aboriginal and Torres Strait Islander Water Interests

We heard that rivers, wetlands, native species and flows have cultural as well as ecological significance. A common message was that environmental outcomes should not be defined only through technical ecological measures. They should also reflect cultural health, access to Country, protection of culturally significant places and the ability of First Nations communities to care for Country.

> **'Monitoring and protection of environmental flows could and should be done by local Aboriginal people living and working on Country. They should report on cultural and ecological indicators and outcomes.'**
>
> Tamworth Gamilaroi Traditional Owner collective

Several submissions also called for stronger links between monitoring, evaluation, reporting and adaptive management. They said monitoring should more clearly explain what is improving, what is not improving, and what management changes follow from that evidence.

Governance and accountability

Many submissions linked environmental outcomes to trust in Basin governance. Submitters said confidence depends on being able to see how decisions are made, what outcomes are being sought, who is responsible, and whether actions are working.

> **'We should not be debating whether the limits are necessary. We should be focused on ensuring they are delivered properly, transparently, and fairly.'**
>
> Hon Karlene Maywald, former South Australia Minister for the River Murray

Some submissions raised concerns that current reporting does not clearly show whether environmental objectives are being met. Others said there should be stronger accountability for environmental water holders, Basin governments and delivery agencies.

> ‘ **While the MDBA needs state partners to deliver the plan the delivery has lacked accountability and state partners have done a poor job of delivering outcomes. Funding should be more clearly linked to standardized delivery processes and resulting outcomes to simplify the process and reduce time and wasted funding.’**
>
> IAI Australia Pty Ltd

However, some submissions cautioned against an overly prescriptive approach.

> ‘ **Prescribing specific environmental water strategies or flow targets … can restrict the flexibility of environmental water managers to maximise the benefits of environmental water allocations.’**
>
> One Basin CRC

Above: Information Session on Fish Passage Project, Menindee Review and Basin Plan Review.

Right: MDBA team waiting for attendees to arrive at Euston Riverfront, NSW.

River connectivity in the northern Basin

About this theme

River connectivity supports the environment, water quality, town water supplies and Cultural and community wellbeing. In the northern Basin, connectivity flows during dry periods sustain waterholes, replenish weir pools and underpin drought recovery.

The northern Basin is very different from the southern Basin. Many rivers in the northern Basin are ephemeral, reflecting rainfall that is highly variable and where droughts disconnect, and floods reconnect, rivers. This natural variability, along with the lack of large public storages, makes it harder to store and release water in the northern Basin than in the southern Basin.

This theme includes views on how connectivity should be defined, how northern rivers differ from southern regulated systems, the role of planned environmental water and state water sharing rules, First Nations water security, entitlement reliability and the balance between local and downstream outcomes.

What we heard

Connectivity is important

We heard support for river connectivity as an important Basin-scale issue. People said connectivity can support river function, wetlands, native fish, water quality, cultural values and downstream environmental outcomes.

> **‘ Protecting ecological function, not just environmental water volumes: The next phase of the Basin Plan should prioritise ecological function and resilience – including connectivity, biodiversity processes, and recovery capacity – rather than treat environmental water recovery as an end in itself.’**
>
> La Trobe University

Tanya Kirkegaard Bigambul Nation and Fred Hooper Murrawarri Nation at the Northern Basin Roundtable.

‘ I strongly support the review prioritising: Restoring natural flow regimes in northern Basin rivers, including the Castlereagh and Barwon-Darling systems. Improving river connectivity to support fish passage, waterbird breeding and floodplain health.’

Uncle Raymond Thompson

‘ A priority on all river systems is improve their connectivity to wetlands, creeks, lakes, lagoons and forests, not just to the Murrumbidya and Murray but also the Baarka river at Wilcannia and Menindee because if we have healthy rivers, wetlands and forests we will have healthy wildlife and people.’

Uncle Hewitt Whyman – Yorta Yorta and Barapa Barapa Elder and Uncle Robert Carroll – Wiradyuri and Ngunnawal gibirs

Northern Basin rivers are different

Many people wanted a clearer definition of what connectivity means in northern Basin systems.

Many were concerned that connectivity objectives could be interpreted as continuous or near-continuous flow. They said this would not reflect the natural character of northern rivers. Submissions said northern rivers are naturally intermittent and highly variable. They told us that dry periods, low flows and reconnection after rainfall are part of how these systems function.

‘ A central concern of this submission is the lack of clarity regarding the environmental objectives the Basin Plan seeks to achieve in the Northern Basin, a system characterised by highly variable and episodic flows.’

Murray Darling Association Regions 11 and 12 Joint Submission

‘ You can’t manage a northern river the same way you manage the southern connected system.’

Irrigation, Agribusiness and Investor roundtable

‘ Connectivity objectives are not natural or sustainable – the system was never meant to be constantly connected or wet.’

Gwydir irrigators, consultation feedback

Looking at modifications to the water course at the back of Wallabadah Racecourse with MDBA staff and guides.

Protecting first flows and base flows

Some submissions pointed to the need for stronger protections for both planned environmental water and held environmental water in the northern Basin. Submissions talked about the need for rules and arrangements to protect this water within catchments and as it moves between catchment areas.

> **‘ The loss of connectivity, particularly along the Darling/Baaka River, highlights another fundamental issue. A river that does not flow cannot perform its ecological role. Restoring connectivity is therefore essential, through protecting base flows, safeguarding first flows after drought, and ensuring that all forms of extraction, including floodplain harvesting, are effectively regulated.’**
>
> Forest Ecology Alliance

We heard that connectivity should align with protection of base flows (the low, ongoing flows that help keep parts of the river system alive between bigger flow events) and first flows (the first pulse of water that comes down a river after a dry period or drought). These flows are important because they help support waterholes, cultural values, native fish, water quality and drought recovery.

> **‘ Preventing extraction of “First Flush” water will give the system an opportunity to recover quicker than allowing pumping of these important natural events. The First Flush should be allowed to do its job for as far as it can reach before the ban is lifted.’**
>
> Uncle Tony Lees

The NSW Government supported targeted action to protect cross-jurisdictional border first flows where this supports critical human water needs and reconnects aquatic and riparian environments. At the same time, it cautioned against flow-based connectivity targets that assume connectivity can be achieved all the time.

> **‘ 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.’**
>
> NSW Department of Climate Change, Energy, the Environment and Water

Submitters also raised concerns about long travel times and transmission losses in northern Basin systems. Some questioned the effectiveness and efficiency of releasing water to achieve connectivity outcomes where large volumes may be lost before reaching downstream targets, or where local benefits may be limited.

‘ The regional water security report prepared for the Far North West Joint Organisation (FNWJO) reinforces the severity of the challenge. It identifies persistent water security problems across the river LGAs caused by cease-to-flow events, poor source water quality, high transmission losses, ageing infrastructure and drought conditions. It also notes that reduced river flows, prolonged dry periods and declining connectivity are increasing water treatment costs and affecting community wellbeing. Those findings are directly relevant to Brewarrina.’

NSW Alliance of Western Councils

A coordinated approach

People told us that planned environmental water, base flows, state water sharing plans, operating rules and coordinated river operations all shape whether rivers connect at the right times.

Environmental Water Holders and Environmental Roundtable participants said coordinated releases and operating decisions have, in some cases, contributed to better system outcomes. However, they also said connectivity depends on multiple tools working together.

‘ The connectivity requirements in the Northern Basin can’t be met by held environmental water alone.’

Environmental Water Holders Roundtable participant

‘ The RNTBC supports the Authority investigating potential changes in NSW to improve river connectivity across connected catchments in the northern Basin. However, any changes to improve river connectivity must be developed in consultation with Traditional Owners to ensure cultural appropriateness.’

Ngemba, Ngiyampaa, Wangaaypuwan, Wayilwan Aboriginal Corporation RNTBC

Barriers to flow were mentioned in several submissions as impacting connectivity outcomes.

‘ There is no substitute for addressing these barriers to important overbank flows; infrastructure projects or offsets schemes will not shift the reality of the situation, which is that water managers need to be able to deliver overbank flows.’

Philia Trust

We also heard that transparency is important.

‘ The Gomeroi Applicant also considers that any proposed improvement to river connectivity in the northern Basin must: [...] (c) provide transparency for decision-making around water allocation, monitoring and compliance for over-extraction; (d) address monitoring, compliance and enforcement issues with unauthorised activity, including excavation and tributary diversion.’

Gomeroi Applicant

Concerns about rule changes

Many irrigation, industry and regional submissions expressed concern that unclear connectivity objectives could be used as a pathway for reducing access to water and that connectivity must not become a proxy for further water recovery.

Some submissions said that while they opposed both, buybacks were preferable to rule changes, based on the concept that purchase is 'opt-in' while rule changes impact all users. Submitters also reflected on the importance of compensation if rule change occurs.

> **'Cotton Australia does not support rules-based reforms that undermine entitlement characteristics, shift risk to existing holders, or effectively acquire water "by stealth". Any proposals – particularly in the Northern Basin – must be informed by comprehensive Basin-wide hydrological assessment and be subject to scrutiny by affected stakeholders.'**
>
> Cotton Australia Limited

> **'The barrage of water reform through threats of rule changes, Basin plan and Water Sharing Plan reviews, minimum inflow reviews and connectivity aspirations are undermining the confidence of the industry, and continuously eroding access to water entitlements with no clearly articulated objectives or environmental metrics.'**
>
> Gwydir Valley Irrigators Association Inc

Concern was also raised about the work undertaken by the NSW government for the Northern NSW Connectivity Review, which the MDBA referenced in the Discussion Paper.

> **'This modelling has excluded the significant contributions of the Basin Plan that has recovered almost 320GL of water across the Northern Basin. Consequently, the massive improvements in flows through the Barwon–Darling – during both low and medium flows and originating in all northern catchments – have not been considered when expressing these concerns.'**
>
> Barwon Darling Water Inc

MDBA staff looking out over Chaffey Dam on the Peel River near Tamworth, NSW, during the BPR Discussion Paper consultation.

Floodplain health and relaxing constraints

About this theme

This theme covers what we heard about improving the health of floodplains and wetlands across the Basin, including by relaxing constraints. Constraints are the physical, operational or policy limits that affect how much water can be delivered through rivers and onto floodplains.

It includes views on how water for the environment reaches floodplains, why many wetlands and floodplain forests are not getting enough water, the role of constraints relaxation, and concerns about impacts on landholders, communities, infrastructure and river operations. Other related feedback is also covered in the Water for the environment section.

What we heard

Importance of floodplains and wetlands

A large number of submissions said that healthy floodplains and wetlands are essential to the health of the Basin. They support native vegetation, wetlands, waterbirds, native fish, water quality, biodiversity and resilience during dry conditions and under climate change.

> **‘There are 16 wetlands in the Murray Darling Basin that are listed under the Ramsar Convention. Wetlands are listed under the Convention because they are internationally significant in terms of their biodiversity and uniqueness. Not all of these wetlands can actually receive environmental water. That’s because there are barriers to flows, or constraints.’**
>
> Anonymous submission

If rivers cannot connect with their floodplains and wetlands often enough, ecological functions are impacted.

> **‘The ecological consequences are visible and devastating. Rivers are pumped to the point where they no longer connect, disrupting the lifecycles of fish and other species. Floodplains are cut off by levees, preventing water from reaching wetlands that depend on periodic inundation. Iconic sites like Macquarie Marshes, Border River and Intersecting Streams, The Gwydir Wetlands, Namoi River Flows (gone) and Menindee Lakes have suffered catastrophic declines. For Aboriginal people, this is not only environmental loss – it is cultural loss. Songlines are broken. Sacred sites dry out. Traditional food sources disappear. “We eat our Wetlands”.’**
>
> Yuwaalaraay Euahlayi Aboriginal Corporation RNTBC

Gwydir Wetlands, NSW.

Several submissions said floodplain processes underpin many Basin Plan environmental objectives and are especially important where river regulation has reduced the frequency and extent of natural overbank flows.

> ‘ **Some rivers are running dry more often and for longer, and flows across the Basin are insufficient for human and ecosystem needs.’**
>
> Wentworth Group of Concerned Scientists

> ‘ **Restoration efforts in the Darling River often focus on flow targets and water allocation. While these are important, they risk overlooking the system’s intrinsic capacity to maintain its own health. A useful way to understand this is through the role of billabongs … billabong restoration is not simply a technical task, but a process of reactivating the river’s own capacity for repair.’**
>
> Feli McHughes et al.

Many submissions told us that water needs to get out of the channel and onto the floodplain at key sites to deliver outcomes. They said floodplain health depends on water reaching wetlands, floodplain forests, the side-channels of rivers and other off-channel habitats.

> ‘ **Waterways across the basin have become disconnected from their floodplains, reducing their overall function and making them vulnerable to the impacts of climate change. Resilient landscapes are functional landscapes that are able to cycle water, carbon, minerals and nutrients to meet social, cultural and spiritual needs.’**
>
> Nature Restoration Alliance Australia.

Flood marker upstream of Jack Talyor Weir, Qld.

Science Roundtable participants described floodplain and wetland health as an ongoing weak point of the Basin Plan. Participants said it was important to restore floodplain function through improved lateral connectivity and targeted water delivery to higher floodplain ecosystems, not just the "red gums". Additionally, that water needs to arrive at the right time, for long enough and frequently enough to support floodplain ecological outcomes.

Concerns about constraints projects

Submissions were divided on constraints relaxation, and environmental watering on private land.

Many agricultural, landholder and regional submissions were concerned about impacts on private land. They raised concerns about crop damage, loss of productive land, bank erosion, access issues, animal welfare, liability, compensation and consultation.

> ' Locals along the Goulburn River are experiencing the horrific environmental damage that is being caused by constant environment flows. There is extensive bank collapse, increased sediment build up, large mature red gums falling, erosion and loss of top soil, bank vegetation and platypus and kingfisher habitat and increased proliferation of carp across the floodplains into every waterway and lagoon.'
>
> Jan Beer

> ' Why, despite evidence provided, the MDBA continues to aim for higher flow targets for the Murray and in doing so, refuses to acknowledge or implement strategies to avoid known elevated flooding risks that are already evident with the MDBA's prioritisation of flow objectives to the CLLMM [Coorong, Lower Lakes and Murray Mouth] (2000GL).'
>
> Louise Burge

‘ The Reconnecting Watercourse program has made things worse in many cases. Changing connectivity across the system has altered how water moves through the landscape, often increasing the frequency and spread of inundation onto private land. These changes have been made without proper understanding of downstream impacts and without meaningful agreement from affected landholders. What we are seeing is environmental risk being shifted directly onto private properties.’

Gingham Lower Gwydir Landholders Association

‘ Physical constraints such as the Barmah Choke significantly limit the volume of water that can move downstream without flooding surrounding land. Without addressing these constraints, environmental watering risks damaging private property and infrastructure.’

Helen Dalton MP, Member for Murray

Some submissions supported constraints relaxation only where risks to landholders and communities are managed. Others opposed overbank delivery if it reduces productive capacity or expose private land to repeated inundation.

‘ Progressing constraints relaxation in a staged, community-supported and cost effective way, underpinned by robust legal and compensation framework.’

Murray River Group of Councils

Basin government submissions presented diverging views on constraints relaxation.

‘ Victoria’s position on relaxing constraints is that projects should only proceed where the costs and benefits are clearly articulated, there is confidence that risks can be effectively managed, and there is broad community support.’

Department of Energy, Environment, and Climate Action, Victoria

MDBA and DCCEEW staff on the road in Lower Macquarie for the BPR Discussion Paper consultation.

West Central Upper Macquarie BPR Discussion Paper consultation event hosted in conjunction with Local Land Services, at Lake Cargelligo, NSW.

‘ The South Australian Government strongly supports the key actions in the Constraints Relaxation Implementation Roadmap developed by the Authority. However, if the broader constraints reform agenda is not going to be pursued by Basin governments, then there would be merit in exploring increases in environmental outcomes that could be achieved from targeted action to address constraints to lower levels at specific locations.’

Government of South Australia

Constraints as part of the Sustainable Diversion Limit Adjustment Mechanism (SDLAM) program

Submissions shared a range of views regarding constraints projects under the existing SDLAM program, which ends in 2026. Some organisations called for extension to these programs, noting that constraints projects are a major element of SDLAM.

‘ In this context, extending timeframes and expanding the suite of eligible measures to a more realistic timeframe would be both consistent with the evidence base and necessary to achieve Basin Plan outcomes in a cost-effective and socially sustainable manner.’

National Farmers Federation

Constraints relaxation remains important

We received many submissions that said floodplain, riverbank and catchment health cannot be restored through environmental water alone. They supported complementary measures such as more integrated land and water management actions, infrastructure upgrades, fish passage, carp control, water quality actions, riparian restoration and improved land management.

Many submissions identified constraints relaxation as one of the most important ways to improve floodplain health and meet Basin Plan objectives. Submissions told us that without effective floodplain inundation, rivers become increasingly confined to channels, wetlands disconnect from flow pathways and ecological responses become more fragmented and less resilient to drought and climate extremes.

> ‘ **Relaxing constraints is the quickest action which could be taken to reverse the ongoing decline in the health of Basin ecosystems.’**
>
> Jensen, Sharley and Dyer, environmental and river management experts

> ‘ **Allow delivery of more natural flow pulses, to restore the “rhythm of the rivers” and longitudinal and lateral connectivity, and to support essential breeding and regeneration events to maintain minimal populations of key species for long term survival.’**
>
> Lifeblood Alliance

Submissions said relaxing constraints could help environmental water better mimic natural flow patterns, including overbank events that support vegetation growth, wetland function, native fish and waterbirds.

> ‘ **[Constraints relaxation] will make environmental watering much more effective by allowing some overbank flows. This would reduce or eliminate the need for pumping water into wetlands using irrigation infrastructure.’**
>
> Murrumbidgee Field Naturalists

At the same time, they recognised that constraints relaxation is complex, requiring stronger coordination between governments, regulators, river operators, environmental water holders, communities and impacted landholders.

> ‘ **Floodplain wetlands are often large, complex ecosystems which often fall on private land. For example, in the Macquarie Marshes >80% is privately owned). Most recently, this constraint’s problem was reported in the Guardian (18/4/26), when over 300 turtles and waterbirds were impacted because environmental flow could not be delivered, purportedly because of potential flooding of private land. This has become an increasingly intractable problem.’**
>
> Centre for Ecosystem Science, UNSW

> ‘ **local residents [in the mid-Goulburn river] are supporting the delivery of environmental water to a local public land reserve and in turn building trusting relationships that over time may contribute to relaxing of constraints, increasing environmental waterflows (an identified priority for Sustainable Diversion Limits) and connecting floodplains to waterways. This provides a second example of how local/regional governance can build local relationships, integrate knowledge and progress long-standing issues for the benefit of Country and communities.’**
>
> Taungurung Land and Waters Council

Menindee Lakes


Menindee Fish Passage Project Technical Advisory Group, NSW.

The management and condition of the Menindee Lakes are the subject of a separate review. The MDBA is managing the review process on behalf of the River Murray governments (New South Wales, Victorian, South Australian and Commonwealth governments).

Where submissions permissions have allowed, we have shared relevant submissions to the Menindee Review. The Review is considering submissions at this time.

The Menindee Lakes system faces similar challenges to those issues affecting the Basin overall. It is affected by upstream catchments and flows from the northern Basin, and the Lakes affects conditions downstream in the southern Basin. It has been the centre of environmental incidents in recent years, including major fish deaths and water quality incidents, and has been affected by both droughts and flooding.

Key issues we heard about in relation to Menindee Lakes include:

- river health and ecological decline, including declining connectivity, poor water quality and native fish decline
- impacts of upstream extraction, including floodplain harvesting, pumping rules, carryover and water delivery efficiency
- current operating rules and water management arrangements, which are considered outdated, inflexible and poorly aligned to contemporary conditions
- the social and economic impacts of any water recovery, and the effects on agriculture, tourism and regional industries and communities
- concerns around infrastructure and water security.

‘ **Critically, the Darling Anabranch system experiences transmission losses of approximately 70%, resulting in substantial inefficiencies and the accumulation of inaccessible “dead storage”. This creates a paradox within the Basin system: while additional water recovery is pursued at significant economic cost, large volumes of water remain effectively stranded or lost within existing infrastructure.’**

Jade Benham

‘ **We are not scientists, but our observations of what happened in the Northern Basin during 2018- 2019 drought when literally millions of fish died at Menindee, suggests this is not a question of tinkering. It’s a question of whether too much water was taken from the river for consumptive use and whether the growth in flood plain harvesting has reduced inflows to a point that is unsustainable.’**

Anne Davies and Mike Bowers

Town water security

Town water supply

Water supply and its related infrastructure is primarily the responsibility of local governments and water utilities, which are responsible for delivering water to their customers. While water supply and infrastructure are a concern to people and communities within the Basin, the Basin Plan has limited influence on these.

About this theme

This theme covers what submitters said about secure, safe and reliable water for towns, communities and essential needs across the Basin. It includes views on critical human water needs, drinking water quality, ageing infrastructure, drought preparedness, water treatment, local government capacity, infrastructure funding, and the role of infrastructure in supporting communities.

What we heard

Critical human water needs

Many submissions said town water security should have been treated as a core issue in the Basin Plan Review. Submissions told us that town water security should not only be considered during emergencies, it should be part of long-term Basin planning.

> ‘A central concern is that critical human water needs are not being reliably secured as a first priority. Communities continue to face water carting and unsafe raw water, while Basin-wide environmental objectives are pursued without visible improvements in local environmental outcomes, including river health, connectivity and water quality. This is undermining trust and social licence.’
>
> NSW Alliance of Western Councils

We heard concerns about smaller and more remote communities, particularly where drought, poor water quality, ageing infrastructure or low flows place pressure on safe and reliable water supplies.

> ‘DEG members live with the drastic and measurable decline in river flows and river health. This is due to overextraction upstream and a failure to halt irrigation growth. Our members and community are expected to live without access to free, safe drinking water because our local water utility is not supported to do this yet. We know what the solutions for this are, and they include the introduction of a Universal Service Obligation for safe, accessible drinking water.’
>
> Dharriwaa Elders Group

We heard about towns and communities running out of water.

> ‘The raising of the Bourke Weir is an issue that has been pursued without success by the Bourke Community for a significant period. A reliable and sustainable water supply is required for the proper functioning of the town. In the most recent drought, which ended in 2019, the weir did not flow for 442 days. The township of Bourke was in a dire situation, with the Sydney Morning Herald reporting in October 2019 that Bourke, with a population of approximately 2100, “was at the highest risk among large towns of running out of water because of the shrinking weir pool” It was noted that whilst the weir pool was at about 50 per cent capacity, the lower 30 per cent was of too low a quality to access.’
>
> Bourke Shire Council

Many submissions framed the issue of water security as a human right and opined that town water supply issues fall within the remit of the Basin Plan Review.

> ‘The right to a healthy environment is recognised as a standalone human right, and is enshrined in the Australian Capital Territory (which is located within the Basin). The United Nations Special Rapporteur on the Environment defines the right to a healthy environment to include the right to a safe climate, access to safe drinking water, and the right to healthy biodiversity and ecosystems.’
>
> Environmental Defenders Office

> ‘Elevate socio-economic obligations to equal (or higher) weight alongside environmental targets, for a community already facing significant disadvantage, clean and reliable water is not a secondary consideration; it is a matter of human dignity.’
>
> Walgett Shire Council in NSW Alliance of Western Councils

> ‘The key questions that need to be addressed through the Basin Plan Review are: What’s the definition of critical human needs? When there isn’t any water, how is a high security allocation for a town supply implemented on the ground? What are the triggers and policy settings to ensure the basic human right for drinking water are met?’
>
> Central NSW Joint Organisation

Chaffey Dam on the Peel River near Tamworth, NSW, during the BPR Discussion Paper consultation.

Several submissions wanted to see critical human water needs given greater prominence in future Basin settings. They wanted clearer protections, stronger drought planning and more visible prioritisation during low inflow periods and emergency conditions.

> ‘ **Urban centres in the Basin have distinct urban water cycles which differ to other parts of the Basin that are dominated by agricultural and/or rural landscapes. Urban runoff is a key form of surface water in urban areas, but is not currently reflected in ACT SDL water accounting. As the ACT is the largest urban area in the Basin, it is disproportionately affected by the current omission, however many urban areas are growing in the Basin.’**
>
> Suzanne Orr MLA Minister for Climate Change, Environment, Energy and Water on behalf of the ACT Government

Water security and regional economies

Submitters told us that town water security should be understood as part of broader regional resilience.

> **‘Water security supports a resilient regional economy – one that can sustain employment, services, and community life.’**
>
> Lauren Hicks

> ‘ **Critical human water needs extend beyond town water supplies. They include the need for a sufficient and reliable water to sustain major local employers and industries. If industries are forced to close, the resulting impacts on population retention, economic stability and social cohesion will simply exacerbate and hasten the further demise of these Western Division towns resulting in a catastrophic situation for remaining residents.’**
>
> Western Division of NSW Councils

Ageing town water infrastructure

Some submissions said infrastructure that was built decades ago is now being asked to support communities under more difficult conditions, including longer droughts, poorer water quality and higher climate risk.

> ‘A planned approach to repairing or replacing ageing infrastructure, some of which is a century old, including progressing SDLAM projects that improve environmental outcomes and retain water within the consumptive pool.’
>
> National Farmers Federation

Submitters pointed to treatment plants, storages, pumps, pipelines and distribution systems that are under pressure, particularly in smaller communities with limited financial capacity. There were also strong concerns about the capability of water treatment infrastructure to provide water of adequate quality.

> ‘It is concerning to read that much of the Basin’s essential river infrastructure is near or past its engineered life span and increasingly vulnerable to failure. It is even more concerning to read that current capital expenditure is only one-third to half the level needed to sustain the infrastructure. It is frustrating that billions of dollars are being spent on more water recovery that will not improve environmental outcomes, instead of fit-for-purpose assets in good operable condition to deliver environmental water effectively as well as supply water for towns, agriculture and industry.’
>
> Murray Regional Strategy Group

Australian silo art mural, painted by Blender Studios in 2020, Warrego River, Augathella, Qld.

Climate resilience and drought

Many submissions said town water security should be treated as a long-term resilience issue, not only an emergency drought-response issue. Submitters raised concerns about poor raw water quality during droughts, low flows, algal blooms and other extreme events. They said these conditions can increase treatment costs and place pressure on already stretched local water providers.

Submitters called for better drought planning, more resilient infrastructure, alternative water sources, clearer operating rules and earlier action before towns reach crisis point. Peak body submissions also supported practical, place-based infrastructure solutions that improve drought resilience, water delivery flexibility and long-term town water security.

The NSW Government said work is ongoing to assess climate change impacts on meeting critical human water needs through their 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.'**
>
> NSW Department of Climate Change, Energy, the Environment and Water

State and local responsibilities

Submissions showed different views about the role of Basin-wide planning compared with state-based planning.

Some governments advocated for critical human water needs to remain a state responsibility and cautioned against duplicating existing state systems.

> **'Management of water resources, including for CHWN [critical human water needs] is a state function.'**
>
> Department of Energy, Environment, and Climate Action, Victoria

Other submissions said clearer Basin-level coordination is needed, particularly where town water security is affected by river operations, cross-border flows, water quality, drought planning and infrastructure investment.

> **'Critical human water needs planning must therefore integrate catchment scale water quality risks and infrastructure capability, recognising that secure town water depends on treatment capacity, storage and alternate supplies, not volume alone. This must be done in collaboration at each Level of Government to ensure adequate investment in capital to underpin town water security is achievable.'**
>
> Central NSW Joint Organisation

Water infrastructure and deliverability

About this theme

This theme covers the physical systems needed to store, move, measure and deliver water across the Basin. It includes dams, weirs, barrages, pipelines, channels, regulators, fishways, meters, town water assets and environmental delivery works.

Submissions discussed deliverability in relation to the Barmah Narrows (referred to in some submissions as the Barmah Choke), ageing assets, critical human water needs, new infrastructure proposals, environmental watering, private land impacts and the limits of relying on water volume alone. Many of these issues are outside of the existing remit of the Basin Plan, but all views have been summarised across the issues.

What we heard

Storage, desalination and supply

Some submissions told us that more storage would improve water security for irrigation, towns, communities and the environment. Others said infrastructure investment should focus on efficiency, delivery, monitoring and complementary measures rather than taking more water from the consumptive pool.

Other submissions opposed new dams or increased storage, expressing views that new storage can disrupt natural flows, reduce downstream connectivity and does not create new water.

Environment-focused submissions were more likely to support infrastructure where it improves ecological function, such as fish passage, wetland reconnection, regulators, water quality works and floodplain connectivity.

> **‘ Fragmentation of river systems reduces access to critical habitats required for spawning, feeding and refuge, particularly for migratory species. Improving fish passage is therefore essential to restoring ecological function.’**
>
> Conservation Council of the ACT Region

> **‘ Achieving Basin objectives therefore requires recognising that environmental outcomes are not an additional use of water, but an equal component of how the system operates. Infrastructure needs to be capable of delivering multiple benefits simultaneously. Flexible release structures, temperature control capability and operational arrangements that allow seasonal variability can support ecological processes while continuing to provide reliability for communities and industry.’**
>
> Australian River Restoration Centre

Many individual, agricultural and regional submissions called for new or expanded water infrastructure instead of further buybacks. Suggestions included increasing dam storage, building new storages, upgrading existing dams, using pipelines, reducing evaporation, improving delivery systems and making greater use of desalination.

> ‘ **Requiring South Australia to maximise desalination before claiming Basin water is a priority because it offers a sustainable solution that reduces pressure on upstream communities.’**
>
> Anne-Marie Abell

Local partnerships for works

Many submissions said infrastructure decisions should be place-based and developed with local knowledge. Irrigation corporations, councils, landholders and regional organisations said local conditions vary across the Basin. They thought that infrastructure solutions should reflect local hydrology, land use, water quality, delivery pathways and community needs, with better coordination between environmental and consumptive water use, increased use of real-time operational data and improved alignment of delivery timing with river capacity.

> ‘ **It is essential that improved planning, including partnerships, is firmly grounded in regionally based collaboration rather than centralised, organisation-centric planning.’**
>
> Coleambally Irrigation Co-operative Limited

Children’s fish artwork adorn the Chaffey Dam Upgrade Signage, NSW.

Some environment and community submissions also supported place-based delivery, especially where local partnerships can improve wetland watering, fish passage, monitoring, catchment management and floodplain outcomes.

Funding pressures

Several submissions raised concerns that the cost of maintaining and upgrading water infrastructure is increasingly being shifted onto local councils, water users and regional communities. Many of the submissions from local government highlighted cost as the major issues with their own infrastructure.

> ‘Governments continually baulk at improving water infrastructure on an economic analysis model that does not include the cost of the loss of agricultural production caused by floods and droughts, and the damage to communities, and roads and bridges. This Submission calls for a major investment in water, not in water buybacks but in renewing ageing infrastructure, building more water storages, and replacing open channels with piping.’
>
> Murray Darling Association Region 11 and 12

Some irrigation submissions also said water recovery can increase infrastructure costs for remaining users, because fixed costs are spread across fewer customers.

> ‘When water is removed from an irrigation system, the fixed costs of operating and maintaining that system do not disappear. Instead, those costs are shared among fewer users, which means higher water delivery charges and infrastructure fees for farmers who stay.’
>
> Anonymous submission

Barmah Narrows and River Murray delivery

The Barmah Narrows was raised as both a culturally and environmentally important reach of the river, and a major physical constraint in the southern Basin.

Several irrigation, horticulture and regional submissions said the Narrows affects water security, delivery capacity, allocation reliability and market confidence especially for communities and industries below it.

> ‘The Barmah Choke is a significant restriction contributing to capacity constraints that cause water to flow onto surrounding floodplains rather than downstream, and it limits the ability to deliver water for both below choke environmental and irrigation needs.’
>
> Australian Table Grapes Association

> ‘The Barmah Choke requires urgent attention to maintain flowrates and return to its original flow capacity, for the benefit of the mid and Lower Murray River System.’
>
> Swan Hill Rural City Council

Barwon River at Collarenebri Weir, NSW.

‘ Concern is held that government-purchased water cannot be conveyed through the Barmah Choke efficiently. The proposed solution that has been implemented is to utilise naturally dry creeks as a bypass, which has significantly altered the local environment. For example, Tuppal Creek, which is not directly connected to the Murray River, now receives water artificially introduced via irrigation channels. This has created ideal breeding conditions for carp due to fluctuating flows, increased organic matter and turbidity. It has also caused restricted access to farmers when flows are increased.’

Anonymous submission

Land and water management

About this theme

This theme covers what submissions said about managing land and water together to improve Basin health. It includes views on catchment condition, water quality, habitat, river operations, environmental watering, infrastructure and on-ground works.

Integrated catchment management means looking at the whole system – land, rivers, floodplains, wetlands, water quality and local communities – rather than managing each part separately.

What we heard

Environmental outcomes need more than water alone

Many submissions said environmental outcomes cannot be achieved through water management alone. They told us that catchment condition, land use, habitat, water quality, river operations and floodplain connectivity all affect Basin health.

Several submissions supported stronger links between environmental watering, catchment management and practical on-ground works.

> **'The Basin Plan would benefit from stronger integration of land and water management. Current legislative arrangements limit the extent to which catchment-scale drivers of water quality and ecosystem health can be addressed. Options to strengthen integration between Basin policy and state-based catchment management should be explored, including options that may require broadening the legislation and the Basin Plan.'**
>
> Australian Academy of Technological Sciences and Engineering

> **'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.'**
>
> NSW Department of Climate Change, Energy, the Environment and Water

Many submissions thought that the Basin Plan still places too much emphasis on water recovery and not enough on the broader condition of the river system. Some submitters said environmental water can only deliver its full value when it is supported by healthy habitats, connected floodplains, good water quality and effective river management.

‘ **Targeted, well-funded complementary measures will deliver more effective and sustainable outcomes than additional water recovery alone and the revised Basin Plan should outline improved strategies to address these environmental issues.’**

Mid Murray Council Landholders, First Nations peoples and regional partnerships

Many irrigation, agricultural and regional submissions said landholders should be treated as partners in environmental management, rather than only as regulated water users.

Through the submissions we heard opportunities for partnerships including with First Nations, regional organisations, Landcare, local communities and landholders in planning and delivering catchment management activities that can deliver many outcomes.

‘ **Gayini shows Nari Nari’s ownership and management of our lands and waters can deliver everyone’s priorities. You are welcome to come and learn from us, but take real time, and do it in partnership. Our way is not the only way, each First Nation will have their own law and custom, and priorities, and we encourage you to expressly commit to restoring ownership and management of core cultural and conservation assets to First Nations owners. You will watch them also deliver the cultural and conservation outcomes as we have, such as over 500,000 nesting waterbirds in one year, our country has come alive again under our management. We can do it together, at scale, and collaboratively.’**

Nari Nari Tribal Council

Rain and warm conditions trigger spectacular Wilcannia Lily display at Merbein, Vic.

‘ Across northern Victoria landholders and communities have experience with and are comfortable with ICM at the scale of individual river valleys (e.g. the Goulburn or Campaspe scale). I support management of the Basin as an integrated system of land, water, biodiversity, people and industries.’

Terry Court

‘ Large parts of the Basin are managed by agricultural landholders and there are opportunities to work more closely with them on activities that can benefit their operations and deliver environmental outcomes. There could be a greater focus on exploring these options going forward.’

Australian Department of Agriculture, Fisheries and Forestry

Better coordination

Several submissions said land and water programs are often fragmented across agencies, funding streams and jurisdictions.

‘ Although ICM [integrated catchment management] is critical for the successful management of water quality, our research found that it is absent at basin level due to limitations of the MDB legislative framework. Without ICM at basin level, Basin Plan governance weaknesses include lack of coordination between Basin and states’ legislative instruments (Principle 1), and the disparity between the states and within the states on water quality targets and deliverables (Principle 10).’

T. John Verhoeven, Andrew P. Dansie, Stuart J. Khan

MDBA Staff learning from staff and members of First People of the Millewa-Mallee Aboriginal Corporation (FPMMAC), based in Mildura. FPMMAC work to manage waterways, deliver environmental watering, and reconnect community to Country, such as the restoration of Musk Duck Wetland, Vic.

Submissions also raised concerns about unclear responsibilities for land management, water quality, environmental watering and catchment health.

> ‘With Basin States, our relationships are generally strong and grounded in long-standing operational partnerships. State agencies provide essential support in water planning, science, policy and compliance, though tensions can arise where responsibilities blur or where centralised decision-making conflicts with regional knowledge and priorities.’
>
> NRM Regions Australia

Some submitters said future Basin management should place more emphasis on practical delivery, measurable outcomes and long-term maintenance, rather than adding new planning and reporting requirements.

We also heard calls for greater cooperation between agencies.

> ‘Improving water quality will require a holistic approach that incorporates land and water management. Addressing the issue will require targeted flows, riparian management, pest control and infrastructure improvements, and cooperation between numerous agencies.’
>
> NSW Irrigators’ Council

> ‘Better coordination and partnerships across all levels of government and sectors will be vital to success.’
>
> Alfred Priestley

Practical works and complementary measures

Many submissions supported practical on-ground measures to improve environmental outcomes. These included riparian restoration, carp management, fish passage, wetland reconnection, erosion control, environmental infrastructure and changes to river operations.

> ‘First nations need to be engaged at the local level, large gathering across the basin are difficult to get local issues across, and nations are at different levels of knowledge when it comes to water management. Nations needs to be at the lead of accountability to the states of first nations and some sort of council for the basin taking issues from the ground up.’
>
> Anonymous submission

Several submissions linked land and water management to community resilience. A common message was that future programs should balance environmental objectives with agricultural productivity, regional economies, food production and community wellbeing.

> ‘The Basin is not only an environmental asset. It is a lived and working landscape. When farms become brittle, towns suffer. When soils decline, productivity weakens. When drought shocks intensify, social pressure rises. Supporting practical land management improvement is therefore economic policy as well as environmental policy.’
>
> Cindy Eiritz, Regenerate Earth

Many submitters supported practical action that improves river health while also making sense for regional communities, especially in the context of maximising environmental water.

> ‘ In our view, that contemporary problem-definition is on shifting from a deep focus on water-sharing and water-quantities alone – to Integrated Catchment Management – focused on working together with communities to better integrate land and water management initiatives to optimise outcomes from the now-established water-sharing framework.’
>
> National Irrigators Council

> ‘ There are still major gains to be made through habitat restoration, wetland works, carp control (90% of the biomass in the river is carp), pest management, fish passage, revegetation and practical on-ground environmental projects. Communities should not continue losing productive water while governments are still falling short on many of these practical measures.’
>
> Kydd Family Company

Some submissions argued that complementary measures, including land management practices, bolster both ecological and social resilience.

> ‘ Complementary measures – including habitat restoration, fish passage, riparian management, drainage and salinity control, nutrient reduction and farm system transition – are essential to maximising the benefits of environmental water. These actions not only improve ecological outcomes but also help rebuild social and economic capital in regional communities.’
>
> Goulburn Broken Catchment Management Authority, in Department of Energy, Environment, and Climate Action, Victoria

Downstream of the town bridge, Darling River, Wilcannia, NSW.

Water markets, trade and entitlements

The system of water markets, trade and entitlements are state-based, and the Basin Plan is not the primary instrument governing these issues. The Australian Competition and Consumer Commission conducted an inquiry into this matter from 2019 to 2021. The Australian Government supported some of the inquiry recommendations and subsequently made changes to legislation and implementation which are still being implemented.

About this theme

This theme includes views on entitlement security, market confidence, buybacks, temporary water markets, environmental water trading, First Nations water rights, Cultural heritage, climate change, accounting and the role of states in water sharing decisions.

A water entitlement is an ongoing legal right to a share of available water. An allocation is the amount of water made available under that entitlement in a particular year. Water trade allows entitlements or annual allocations to be bought, sold or moved, subject to rules.

What we heard

Support for entitlement frameworks

Submissions generally recognised that water markets, trade and entitlement frameworks are central to Basin water management. Many submissions supported secure, tradeable entitlements and allocation frameworks. They said these arrangements provide flexibility for irrigators, industries, communities and environmental water holders to respond to seasonal conditions and water availability.

Several state government, industry and market submissions supported retaining the broad structure of the existing entitlement and trading framework. New South Wales, Victoria and Queensland emphasised the role of state-based allocation frameworks and water sharing arrangements. South Australian submissions placed greater emphasis on Basin-wide accountability and downstream outcomes.

Many agricultural and irrigation submissions said that secure entitlements remain essential for investment, planning and regional confidence.

> **‘ Looking ahead, the next phase of Basin policy should provide stability and long-term confidence. Maintaining the integrity of the Sustainable Diversion Limit framework, prioritising complementary measures, and embedding place-based approaches will be critical to achieving balanced and durable outcomes.’**
>
> Australian Dairy Industry Council Inc

Many submissions supported entitlement frameworks in principle but wanted future reforms to avoid creating further uncertainty or reducing practical water availability without clear evidence of benefit.

Water markets

Some submissions said water markets are functioning effectively and should remain a core feature of Basin water management. They agreed that markets help water users manage seasonal risk, production decisions and environmental watering opportunities.

> **'Water markets enable adaptive responses to climate variability, support high-value agricultural production and allow environmental water holders to actively manage allocations.'**
>
> Australian Water Brokers Association

Temporary markets

Agricultural and irrigation submissions acknowledged markets as a tool for flexibility but raised concerns that reliance on temporary water markets also increases exposure to high prices, low allocations and policy uncertainty.

> **'Declining milk supply, rising input costs, regulatory complexity and global competition are constraining productivity and investment across dairy processing. Further water recovery under current Basin Plan settings – particularly buybacks – will compound these pressures, accelerating structural decline across the dairy supply chain.'**
>
> Australian Dairy Products Federation

They told us that high-reliability water, predictable allocations and confidence in market settings are especially important for orchards, vineyards and other long-term investments.

Environmental water market participation

There were mixed views on the wisdom of enabling environmental water holders to utilise water markets. Some submissions saw more flexible environmental water portfolio management as a way to improve ecological outcomes without further permanent reductions in the consumptive pool.

This included suggestions for temporary trade, leasing, strategic purchase, carryover strategies and using market proceeds to support complementary measures such as fish passage, habitat restoration, water quality improvements or infrastructure upgrades.

> **'The lack of flexibility for the CEWH to sell water in times of plenty is a hindrance for the Plan. At present any revenue from temporary water sales must be used to purchase more permanent water. If this restriction was removed money raised could be used to build infrastructure or invest in projects with environmental outcomes.'**
>
> M & A Gardiner

Others cautioned that expanded market activity by environmental water holders would need clear objectives, safeguards, transparency and public reporting.

> ‘ **Caution should be exercised before implementing any recommendation that would subject environmental water holders to differential treatment under trading rules relative to other holders of the same type of water access rights.’**
>
> Australian Competition and Consumer Commission (ACCC)

First Nations water ownership

First Nations submissions raised that water market systems reflect both historical exclusion and ongoing dispossession from water ownership, decision-making and economic opportunity. First Nations and environmental submissions argued that while market-based access (ownership) was important, on its own it does not address structural exclusion without dedicated rights, provision of cultural flows, governance reform and adequate funding.

> ‘ **Providing water entitlements to Aboriginal communities is essential for maintaining cultural flows and ensuring that traditional practices can continue. This allocation will empower communities to care for Country, sustain the health of the river, and uphold their responsibilities as custodians. By granting water rights, Aboriginal people can preserve their cultural identity, pass down vital knowledge, and strengthen their connection to the Barwon River for future generations.’**
>
> Mungindi Local Aboriginal Land Council

Uncle Glen Ellis Mungindi Elder and Mungindi Local Aboriginal Land Council member with on Country Support team, Barwon River Weir, Mungindi, Qld.

Some agricultural and irrigation submissions supported First Nations access to water through market-based acquisition, provided existing entitlement holders are not adversely affected.

First Nations and environmental submissions generally took the view that market-based access alone would not address structural exclusion without dedicated rights, funding and governance reform.

Transparency and market information

Submissions across sectors called for clearer water accounting (including double entry accounting), market information and reporting. Irrigation and agricultural submissions wanted clearer information about entitlement reliability, environmental water use, market impacts, underuse, carryover, trade constraints and cumulative effects of policy changes.

Environmental, science and legal submissions called for stronger water accounting. This included better measurement of extraction, floodplain harvesting, planned environmental water and water left in-stream.

Submissions argued that Basin-wide environmental and downstream obligations require stronger accountability across jurisdictions. South Australian, environmental and downstream submissions were particularly concerned that upstream water management, accounting and allocation decisions can affect downstream communities, environments and water quality.

Irrigated cotton at St George, Qld.

Water Resource Plans

Requirements for water resource plans are outlined across the Basin Plan and the *Water Act 2007* (Cth). The Water Act outlines the process by which Water resource plans are developed and accredited. The Basin Plan sets out what is required to be contained in Water resource plans in order for them to be accredited.

Where submissions permissions allow, we have passed on what we heard about the processes for water resource planning to the Water Act review which is also occurring during 2026.

About this theme

Water resource plans, or WRPs, are the plans that set out how Basin state governments manage water resources in line with the Basin Plan. They cover issues such as sustainable diversion limits, environmental water protection, water accounting, metering, compliance and critical human water needs.

This theme covers what submitters said about how WRPs are working, whether they should be simplified, how they should be accredited and enforced, and how they could better support First Nations participation, environmental outcomes and public confidence.

What we heard

Submitters agreed that WRPs provide a framework for managing SDLs, supporting compliance, protecting environmental water and linking Basin Plan requirements with state water planning arrangements.

Several government and agency submissions supported retaining the core role of WRPs, while making them easier to update and administer. Submissions also supported focusing WRPs more clearly on core Basin Plan obligations, including sustainable diversion limits, environmental water protection, metering and critical human water needs.

Streamlining and simplification

Many submissions said the current WRP system was too complex, resource-intensive and administratively burdensome. We heard concerns about duplication, lengthy accreditation processes, inconsistent requirements and the difficulty of updating WRPs as conditions change.

Several submissions supported simplifying WRPs while retaining their core functions.

Meeting with Central Murray Floodplain and Environment Group, Vic.

‘ Accordingly, a streamlined document focused on core, enforceable obligations would be vastly preferable to thousands of pages of non-binding text that, in practice, no one reads. Inclusion of these core components in an appropriately drafted form would support recommendations in this submission regarding protection of HEW and PEW, achievement of EWRs, connectivity, water quality, drought reserves and cultural flows.’

Dr Emma Carmody, Commissioner for the River Murray – South Australia

Some expressed the view that Basin state governments need flexibility to meet WRP requirements through existing state planning frameworks and local management arrangements. Some submissions said state-based water planning systems already cover many Basin Plan requirements, and that WRPs should avoid unnecessary duplication.

‘ ... duplication between State and Commonwealth processes, inconsistent treatment of jurisdictions, the rigidity of CEWH frameworks, the misalignment of programs like the Sustainable Communities Program, and the administrative complexity surrounding Water Resource Plans. Failure to address these issues does not just create frustration – it undermines confidence, reduces effectiveness, and diverts resources away from the real task of improving ecological outcomes.’

Ricegrowers Association of Australia

Others told us that they wanted to see stronger Basin-wide consistency, especially where state decisions affect downstream communities, environmental water, critical human water needs or cross-border outcomes.

‘ Reforming WRPs to a more targeted and risk based model is supported. The requirements for SDL compliance and the protection of planned and held environmental water must be regulated through an accredited statutory compliance instrument.’

Government of South Australia

Accreditation and amendment

Several submissions raised concerns about delays in WRP accreditation and amendment processes. Submitters said slow approvals can create uncertainty, duplication and gaps in regulatory coverage. Some also said WRPs can become outdated when state laws or planning instruments change, but there is no simple pathway to update them quickly.

Many submissions supported more efficient amendment processes, especially for minor or technical changes. At the same time, some cautioned that streamlining should not weaken scrutiny of more significant changes.

‘ Diminishing currency (erosion) of WRPs with 25 of 28 accredited WRPs referencing state laws and instruments that have been amended, remade or replaced since accreditation which affects the Inspector-General’s ability to audit and investigate compliance with WRPs and ultimately to provide assurance to the Parliament and the community about Basin Plan and WRP implementation.’

Inspector-General of Water Compliance

Balancing simplification with accountability

Many government submissions supported streamlining WRPs, but submissions differed on how far reform should go. Some submissions said that WRP requirements should focus more clearly on enforceable outcomes and less on administrative process. This included calls for clearer responsibilities, practical implementation requirements and stronger auditability.

‘ While streamlining the WRP process is necessary, it remains important that a formal accreditation method is retained, with clear enforcement mechanisms to maintain integrity and public confidence in the Basin Plan.’

Department of Energy, Environment, and Climate Action, Victoria

Recognition of First Nations peoples’ rights in water resource planning

Several submissions recognised improvements in First Nations involvement during WRP development, though many thought the consultation is not enough. Stronger recognition of First Nations peoples’ rights and interests in water management was a consistent message in submissions received from First Nations peoples and organisations.

‘ The Basin Plan, the Water Act 2007, and the compliance regime administered by the Inspector-General of Water Compliance (IGWC) were written without Aboriginal people in mind. They require agencies to “have regard for” Indigenous values and uses but impose no obligations to act on them. We continue to be consulted but never empowered.’

Tamworth Gamilaroi Traditional Owner Collective

‘ Participation is not enough. Traditional Knowledge must be embedded structurally into water planning. It must not merely be consulted or given token regard but genuinely integrated as an equal and authoritative input into management decisions.’

Butchulla and Woppaburra woman Jade Gould

‘ WRPs must move from procedural consultation to co-design, co-decision and enforceable outcomes for First Nations.’

Tanya Kirkegaard

Calls were also made for water plans to have specific provisions that recognise native title rights, protect cultural heritage, and provide for cultural flows.

‘ We propose introducing a new legally operable framework into the Basin Plan recognising First Nations as rights-holders in water governance and establishing Cultural Flows as a distinct and enforceable water entitlement. There are three key aspects for this amendment: a. It formally recognises First Nations authority and rights relating to water. Rather than positioning First Nations as stakeholders to be consulted, this amendment recognises them as decision-making parties with standing in relevant Basin processes. b. It establishes Cultural Flows as a new entitlement category, protected, visible in entitlement systems and managed by First Nations. These entitlements are designed to deliver cultural, spiritual, environmental, social and economic benefits, based on objectives determined by First Nations themselves. c. The proposed amendment introduces new implementation requirements including nation-to-nation engagement obligations, reporting and monitoring frameworks, and delivery mechanisms that ensure Cultural Flows can be delivered reliably and transparently.’

Dianne Connelly and anonymous

‘ For First Nations that have had native title determined, there should be an express requirement to explicitly consider First Nations access and use of water pursuant to native title rights and interests, prior to, any other water access right and entitlement. The Basin Plan must require native title rights be articulated and protected prior to accreditation of a water resource plan.’

Nari Nari Tribal Council

Public transparency and community understanding

Submitters called for simpler language, clearer public reporting and better explanation of how WRPs influence local water management decisions.

This included clearer information about accreditation, compliance, environmental water protection, metering, accounting and how state planning instruments connect to Basin Plan requirements.

> **'The Discussion Paper highlights important limitations of the current processes for developing and implementing water resource plans (WRPs), including lack of consequences for delays, and that WRPs have not typically driven reform of water rules but rather have been made by drawing on existing regulatory and policy approaches. There is a clear need to reform WRPs. However, a key challenge is navigating the need for flexible approaches to water resource planning that can be adapted to local needs and issues, versus for enforceable requirements that enable holding state and territory governments to account for outcomes.'**
>
> Centre for Environmental Governance, University of Canberra

River upstream of Jack Taylor Weir, St George, Qld.

Science and knowledge

About this theme

This theme covers what we heard about the science, data, monitoring and knowledge used to guide Basin water management. It includes views on modelling, climate science, groundwater knowledge, monitoring and evaluation, and the need to include First Nations science and knowledge, local insights, new technologies, transparency and how evidence is used in decisions.

What we heard

Best available science, knowledge and modelling

The MDBA must use 'best available science' to inform the work of the Basin Plan Review and deliver its remit more broadly.

Some submissions raised concerns about whether best available science had been used. They pointed to differing modelling approaches, inconsistent datasets and the need for a framework that governs how science is used.

> **'There are reasons to be concerned that the SDL analysis and Discussion Paper may be broadly undermined by inadequate data collection and monitoring, as well as transparency, both of which are important to the Authority meeting its legal obligation to act on the best available science.'**
>
> Environmental Defenders Office

> **'Some of the science relied on in the [Discussion] paper also does not appear to have been independently peer-reviewed.'**
>
> Anonymous submission

Recognition, respect for and inclusion of First Nations peoples' sciences and knowledges was a key theme of First Nations submissions.

> **'Traditional Knowledge and Traditional Land Management practices are not historical curiosities. They are active, sophisticated, science-grounded systems of ecological management developed over 65,000 years of direct relationship with these river systems … Archaeological evidence, oral histories, fish trap engineering, and ecological observation accumulated over generations provide insights into the Basin's historical ecological baselines, seasonal water regimes, species behaviour, and landscape dynamics that Western science has barely begun to map. These are irreplaceable knowledge systems. They belong to their communities. They must be recognised, protected, and empowered within the Basin Plan's architecture.'**
>
> Butchulla and Woppaburra woman Jade Gould

‘ First Nations knowledges should not be seen as an add-on, but as fundamental to water management in the Basin. First Nations water cultures and knowledges should not only be referred to in specific chapters and sections, but need to run through the whole Basin Plan to guide water management on Country.’

Bunya Peoples’ Aboriginal Corporation

Partnerships and collaborative science

A common theme was the need for collaborative science and knowledge that incorporated lived and local experience.

‘ The BCC emphasises the importance of stronger jurisdictional and community collaboration, clearer communication, and the setting of seasonally appropriate objectives, informed by the best available science. Flexibility must be supported by robust accountability mechanisms to ensure intended outcomes are not diluted. Monitoring and reporting frameworks must be credible, locally informed, transparent, and grounded in lived experience.’

Basin Community Committee

‘ Enhancing our knowledge and water models to be more transparent and adaptable. This means evolving beyond “evidence as a defense” and instead using models as a dialogue – incorporating “lived experience” alongside hydrological and ecological data.’

Young Voices for the Basin

‘ Opportunities to better inform Basin water management decisions include partnerships with First Nations peoples to ethically include their science and knowledges to gain richer insights on challenges such as climate, fish health, water quality and environmental outcomes.’

Murrawarri Provisional Council of State on behalf of the Murrawarri Nation

Merbein Common is a significant site for environmental watering due to its high rehabilitation potential, Vic.

Long-term investment in science and knowledge

Submissions said one-off science programs have been important, but future Basin management will need ongoing investment and capability. This included long-term monitoring, stronger modelling frameworks and better systems for turning evidence into decisions.

> ‘ **Sustained, coordinated, national investment in climate science is needed to inform Basin management and answer nationally significant climate questions.’**
>
> Australian Academy of Science

Several submissions supported greater use of real-time monitoring and new technologies to improve water accounting, water quality monitoring, forecasting, environmental assessment and responses to emerging risks.

> ‘ **In this context, future modelling efforts should focus on providing a more robust, timely and transparent information base for planning, operations, compliance, systematic evaluation, and adaptive management under change, including climate change. These efforts include advances in digital technologies, Earth observation, in addition to the focus on hydroclimate and hydrological modelling.’**
>
> CSIRO

We also heard the importance of the role of First Nations River Rangers to undertake on Country monitoring and compliance.

> ‘ **There need to be more monitoring by nation peoples with authority to do so such as water rangers similar to park rangers so that our river rights are policed and protected with scientific equipment to collect data then to work toward solutions.’**
>
> Uncle Arnold James Boney

Knowledge gaps – climate change, groundwater and connection

A number of submissions said Basin science needs to better account for climate change, extreme events and changing hydrology. They wanted models that better test hotter, drier and more variable conditions.

> ‘ **We also note that there has been a significant and laudable commitment to ensuring the evidence base is made publicly available, with greatly increased transparency of evidence in recent years. However, the discussion paper does not sufficiently acknowledge what, we argue, continue to be significant gaps in knowledge and insight, and gaps in commitment to long term monitoring. These gaps lead to significant uncertainties regarding both outcomes to date, and in future casting.’**
>
> Centre for Environmental Governance, University of Canberra

> ‘ There are knowledge gaps, and better science and monitoring is needed. Addressing these will make future Basin water management more efficient and effective under future climate scenarios.’
>
> Queensland Government

Groundwater knowledge was repeatedly identified as a major scientific and knowledge gap.

Some people said groundwater is becoming more important as climate change increases pressure on surface water systems. Others said current knowledge is not strong enough to support future planning and risk assessment.

> ‘ Significant gaps remain in recharge estimation, connectivity assumptions, model calibration, bore selection, spatial variability, and the causal linkage between extraction and observed groundwater trends. These are not minor technical uncertainties, they go directly to the integrity of any conclusion regarding environmentally sustainable levels of take.’
>
> Anonymous submission

Submissions raised groundwater knowledge gaps in relation to groundwater-dependent ecosystems.

> ‘ There has been a large increase in the number of bores and centre-pivot irrigation systems along the lower Ovens River in recent years. In a drying climate, this increased removal of groundwater is concerning. Improvements in mapping and monitoring of these systems, and their effects on river systems as a whole, are needed. Extensive monitoring of this groundwater water removal is vital to ensure the ESLT remains relevant under a changing climate.’
>
> Philippa Noble

Understanding the links between surface water and groundwater was noted by several submissions as a priority, especially in northern Basin systems.

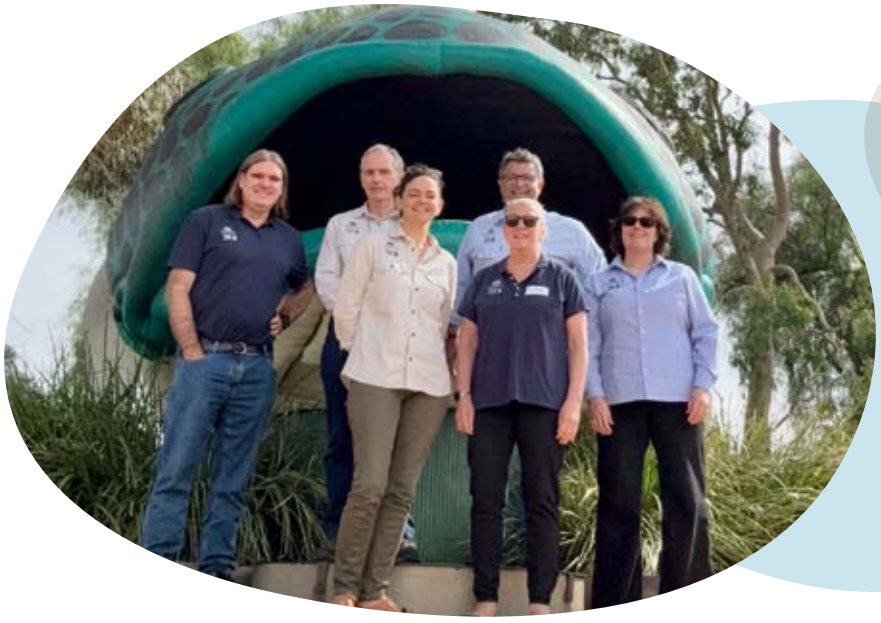
> ‘ Groundwater accounts for less than 15% of total water use in the Murray–Darling Basin. The feasibility to better manage groundwater, particularly conjunctively with surface water, should be explored. To enable this, surface water and groundwater must be considered as one hydrological and water resources system. Research to inform this should focus on developing integrated surface and groundwater models, building on existing component models.’
>
> CSIRO

Submissions also pointed to the complex integration between parts of the Murray–Darling Basin system, recommending an integrated approach.

> ‘ Assessment of system performance, and of how what is happening in one part of the system is affecting other parts of the system, needs to be more explicit. This requires assessing the intersection of ecological, social and economic change in the Basin; of changes at differing scales; and of how action in one geographic location in the Basin affects other locations.’
>
> Centre for Environmental Governance, University of Canberra

> ‘ We believe that an integrated interdisciplinary approach is needed for the Basin Plan, one that encompasses diverse fields of research and management.’
>
> Ecological Society of Australia

> ‘ A coherent national approach to the stewardship of water science and research should be explored, that is inclusive of all water-related sectors, interests and scientific needs and endeavours. This should be inclusive of community and environmental stakeholders, and the integration of indigenous knowledge and decision-making. The future Basin Plan priorities should expect a wider collaboration function and participation in the wider stewardship of water science and research.’
>
> Water Research Australia



MDBA Staff members during the Basin Plan Review consultation Sunraysia tour.

Governance and accountability

Governance and the *Water Act 2007* (Cth)

Governance is not a key area covered in the Basin Plan. Governance arrangements for Basin water management are set by the *Water Act 2007* (Cth). However, we received multiple submissions which raised concerns about governance as part of our consultation.

We have passed these submissions to the Department of Climate Change, Energy, the Environment and Water so that these issues can be considered as part of the review of the Water Act.

About this theme

The Water Act is the primary Commonwealth water management legislation. It established powers and institutions and sets the constitutional foundation for Commonwealth involvement in water management. The Water Act establishes roles and responsibilities of Commonwealth institutions like the IGWC, the CEWH and the MDBA. The Murray–Darling Basin Agreement is an important schedule to the Water Act. The Basin Plan is subordinate legislation to the Water Act.

We received some submissions that discussed roles and responsibilities of Commonwealth agencies involved in Basin water management, as well as state governments and local councils.

We also received submissions that touched on accountability of those involved in Basin water management. We heard that regional and community-based delivery models are increasingly critical to implementation, linking environmental water with landscape-scale outcomes, and building trust in the community about what's being achieved and how.

What we heard

Basin governance

Submissions highlighted that there are issues with existing governance frameworks which constrain the achievement of Basin Plan outcomes. Some people said the system has become unwieldy, with too many committees and governance layers reducing coordination and slowing decision making, which contributes to inefficiency and duplication.

> **'Reporting obligations remain extensive, duplicative, and resource intensive. Key issues include duplication between Basin Plan matter reporting and IGWC compliance activities and the complexity and inflexibility of Water Resource Plan development and accreditation.'**
>
> Suzanne Orr MLA Minister for Climate Change, Environment, Energy and Water on behalf of the ACT Government

‘ The review of the Basin Plan should include a goal of reducing regulation. The addition of more layers of governance does not increase efficiency.’

Bourke Shire Council, in NSW Alliance of Western Councils

‘ Environmental water governance has become increasingly complex, with duplication across administration, planning, coordination and reporting frameworks. This complexity absorbs resources, delays decisions and undermines responsiveness.’

Commonwealth Environmental Water Holder

We heard that Basin governance is characterised by fragmentation and diffuse accountability.

‘ As a consequence, I continue to observe systemic risk in areas including governance, funding, accounting, modelling, measurement, implementation, asset management, constraints, program design and infrastructure delivery. It is my view that any opportunity to address this fragmentation appears to warrant priority and serious considered effort. My view is that addressing the underlying drivers of fragmentation is an on-going and long-term aspiration. Consolidation of instruments is necessary. Clarity of roles is necessary. Effective governance is necessary.’

Inspector-General of Water Compliance

‘ Persistent weaknesses in Basin Plan governance, including limited State accountability, siloed decision-making and short-term political and funding cycles, continue to undermine long-term delivery and outcomes.’

Basin Community Committee

Some submissions outlined that current frameworks are fragmented and difficult to interpret, with responsibilities split across many Basin state government and Australian Government agencies. This limits community understanding of how decisions are made, what tradeoffs are considered and how outcomes are delivered.

‘ BRFF supports governance reforms that clarify the respective roles of the Commonwealth, Basin States, and the MDBA in integrated catchment management; strengthen accountability for the use of held environmental water; ensure Basin States meet their NWI obligations; and provide clear and accessible regulatory guidance to water users.’

Border Rivers Food and Fibre

‘ Across regions, communities want clear, relatable benefits, not abstract Basin-wide narratives. They expect transparency, accountability and honesty … They want decisions grounded in local knowledge, not just models, and they expect Basin institutions to respect lived experience.’

NRM Regions Australia

MDBA and DCCEEW staff looking for platypus on the banks of the Mandagery Creek, NSW.

We also heard that these governance frameworks are not fit for purpose to deal with climate variability.

> ‘ **While some adaptive capacities have been integrated into water governance in Australia, including regular reviews, science – policy interfaces such as advisory committees, and monitoring and evaluation processes, current governance approaches are poorly prepared to cope with the nature and magnitude of projected climate change with its increasing climate volatility and damaging extreme weather events.’**
>
> Centre for Environmental Governance, University of Canberra

> ‘ **Adaptive, flexible delivery models, guided by regional expertise, are needed but not well supported by current arrangements.’**
>
> NRM Regions Australia

Community involvement in decision-making

Some submissions, particularly those from local councils, called for greater involvement of local government and communities in Basin Plan governance.

> ‘ **The Basin Plan Review is an opportunity to transition from a predominantly top-down, and at times adversarial, governance model toward a more collaborative system grounded in codesign, shared responsibility, and local empowerment.’**
>
> Murray Darling Association

‘ Local Government must be recognised as an active governance partner, not simply a stakeholder, including appropriate resourcing to support implementation, monitoring and community engagement.’

Murray Darling Association Region 6

First Nations rights and participation in governance and decision-making

Submissions from First Nations peoples called for stronger recognition of First Nations people as rights holders, and stronger alignment with principles of the United Nations Declaration on the Rights of Indigenous People (UNDRIP) and Closing the Gap.

‘ The Committee believes that the revised Basin Plan should move further towards shared decision-making – where Aboriginal and Torres Strait Islander people have a defined role in determining outcomes and have equal decision making authority, not just the ability to influence them.’

Committee on Aboriginal and Torres Strait Islander Water Interests

‘ First Nations governance authority is not an add-on to Basin water management; it is a precondition for it. The Basin Plan Review must embed structural reform across three interconnected dimensions: shared decision-making, meaningful and resourced governance roles, and First Nations leadership in ecosystem management.’

Aboriginal Water Entitlements Program Advisory Group

Goulburn River, Seymour, Vic.

This call was supported more broadly.

> ‘ This includes recognising First Nations peoples not only as stakeholders, but as cultural authorities and partners in decision-making relating to the Basin, including waterways and culturally significant sites across Country. Embedding this approach would strengthen alignment with national priorities relating to Closing the Gap, cultural governance, and long-term sustainable water management, while improving Basin Plan legitimacy and outcomes.’
>
> Murray Darling Association Regions 11 and 12 Joint Submission

> ‘ The broader water governance in the Basin continues to operate through complex cross-jurisdictional frameworks that risk the subordination of First Nations’ peoples, including where First Nations’ cultural values and relationships with Country are inadequately reflected in legal and institutional arrangements … A fundamental shift is required in how Basin water management incorporates First Nations’ rights and interests … The next iteration of the Basin Plan should work towards establishing more formal partnership arrangements with Traditional Owner groups.’
>
> Government of South Australia

> ‘ First Nations peoples should be recognised as having a fundamental and inherent right to water, supported by increased ownership, access and management of water in the Murray–Darling Basin. This recognition supports the development of self-determined programs and projects to meet cultural and environmental objectives. A greater role for First Nations peoples in waterway management should be delivered through partnerships with government and water entities. This includes meaningful participation in decisions that affect Country, such as river operations, environmental water deliveries and planning processes, and development of water resource plans.’
>
> Department of Energy, Environment, and Climate Action on behalf of the State of Victoria

Consequences for delays or failure to deliver

Many submissions raised concerns about lack of consequences for delays, or failure to deliver Basin Plan programs particularly SDLAM, Water resource plans and northern Basin toolkit measures.

> ‘ Gwydir Constraints management as detailed in the Northern Toolkit has not been completed by the NSW Government. This is not a volumetric issue, rather it is an infrastructure issues caused by failure of government. As indicated previously, we believe that the MDBA should strongly reinforce the requirement that NSW government complete constraints in the Gwydir as required under the Northern Toolkit.’
>
> Gwydir Valley Irrigators Association

‘ NSW and Victoria have had 14 years to work on addressing these barriers to delivering water onto floodplains – including on private land – and have made the barest of progress (particularly Victoria).’

National Parks Association of NSW

We heard that despite legislative extensions and “repeated policy accommodation” for SDLAM, these projects were not delivered, representing a systematic breakdown in intergovernmental delivery of one of the Basin Plan’s core design elements.

‘ This failure has had direct and foreseeable consequences. As supply measures stalled, policy pressure defaulted back to entitlement purchase, often concentrated in regions least able to absorb permanent water loss.’

Jeremy Morton

‘ To date state governments have struggled to deliver basin plan outcomes. Due to these failures consumptive water users and irrigation communities have paid the price through further water buy backs. If further projects need to be delivered in the future these partnerships need to be reviewed and consideration given to funding other organizations to deliver projects.’

Robert Ditchfield

Concerns were also raised about inadequate oversight of financial arrangements between the Commonwealth and Basin states, including the Federal Financial Agreements that support and fund Basin Plan implementation.

‘ The current Basin Plan implementation framework relies on a mix of legislated “have regard to” provisions, implementation funding, and assurance mechanisms – including the Intergovernmental Agreement (IGA) on Implementing Water Reform in the Murray–Darling Basin and Federation Funding Agreement (FFA) Environment Schedules to implement policy reform. However, these mechanisms are not operating as well as they could be.’

Commonwealth Environmental Water Holder

There is strong sentiment that the next phase of Basin Plan implementation should prioritise strengthening accountability, with clear consequences for inaction.

‘ The MDBA and Basin states must also find a more effective way of delivering SDLAM projects if this program is continued (or the Northern Basin Toolkit). As part of the Basin Plan review, NSWIC supports re-examining the failures in program rollouts in order to ensure more timely and cost-effective delivery.’

NSW Irrigators Council

The role of the Commonwealth Environmental Water Holder (CEWH)

The CEWH plays a central role in achieving environmental outcomes, managing a large and nationally significant water portfolio now worth an estimated $11 billion.

The CEWH believes its independence and operating capacity must be strengthened to be able to operate at local and Basin scales, while maintaining high levels of transparency and accountability.

> ‘ … under some state water management rules, the CEWH has had limited capacity to order and deliver water independently. For example, under Victorian legislation, Commonwealth environmental water is typically required to be transferred to the Victorian Environmental Water Holder (VEWH), for the water then to be ordered by the relevant Catchment Management Authority (CMA). This means the Commonwealth’s environmental water is no longer delivered under the CEWH’s legal framework.’
>
> Commonwealth Environmental Water Holder

This concern about the CEWH’s ability to operate effectively was echoed in other submissions.

> ‘ Basin Plan was expressly designed to enable coordinated, whole-of-system outcomes, yet current arrangements allow localised state or regional pressures and lobbying to impact the effectiveness of investments in delivering Commonwealth environmental water. This governance gap was starkly illustrated in April 2026 at the Gwydir Wetlands Ramsar site (New South Wales), where Commonwealth environmental water could not be deployed to address rapid drying of the wetlands due to opposition to floodplain inundation by a landholder.’
>
> Australian Rivers Institute, Griffith University

Warrego River, Charleville, Qld. Looking downstream from the Sturt Street Bridge.

Some submissions called for the CEWH to better utilise its water portfolio for both economic and environmental outcomes and trade annual allocations more readily.

Cotton Australia suggested that the CEWH needs to be a 'nimble participant in the water market.'

> **'This participation should be extended to the use of the CEWH of options like leasing, or derivatives that would allow the CEWH and water entitlement holders to enter into long term arrangements, where trades are triggered based on available water allocations.'**
>
> Cotton Australia Limited

The role of the Inspector-General of Water Compliance (IGWC)

Submissions highlighted that the IGWC is central to system integrity and accountability across jurisdictions. We heard it has strengthened compliance and transparency, but its role needs to evolve to address system complexity and delivery risks.

There were strong calls from First Nations peoples and groups for stronger oversight of states and compliance by the Commonwealth, including via the IGWC.

> **'DEG believes that the Inspector-General of Water Compliance has not been provided with the powers, support or opportunity to fully undertake his/her role, achieve effective regulation of water administration in the Basin, and enforce compliance with the law. Commonwealth intervention in water reform was necessary because the States failed to manage water sustainably, or in the national interest. Dharriwaa Elders Group unreservedly rejects any proposal that would result in less scrutiny and regulation of Commonwealth or state water management agencies.'**
>
> Dharriwaa Elders Group

Future priorities for the IGWC were suggested including more proactive, risk-based oversight, stronger monitoring of Basin states' performance, enhanced enforcement powers and greater access to data and reporting.

> **'Data gaps undermine public trust. The Review should strengthen not reduce monitoring and reporting, and reinforce the role of the Inspector-General of Water Compliance. The public need transparency as to how this problem is being solved.'**
>
> Anonymous submission

The Murray–Darling Basin Agreement

Some submissions outlined that the relationship between the Basin Plan and the Murray–Darling Basin Agreement remains a key governance gap. Both frameworks operate across the same system, but we heard they are not well aligned, creating risks of duplication, inefficiency and conflicting incentives.

The risk that overlapping instruments work against each other, reducing effectiveness and creating confusion regarding roles and responsibilities, was highlighted.

Improving alignment between the implementation of Basin Plan policies and programs and the Murray–Darling Basin Agreement is seen as critical to ensuring coherent system-wide decision making, consistent policy objectives and effective use of environmental water.

Transparency in decision making and outcomes

We heard that transparency is essential to maintaining trust and social licence. Submissions articulated frustrations, despite extensive reporting.

> **'There remains a lack of confidence in Basin governance due to: historical failures in compliance and enforcement; insufficient transparency in decision-making; limited involvement of Local Government in planning processes.'**
>
> Murray Darling Association Region 4

Some submissions expressed concerns about transparency and accountability regarding environmental water.

> **'There needs to be clear evidence on how environmental water is being used, what outcomes it is delivering, and whether those outcomes justify the environmental, social and economic costs. Greater transparency and accountability in environmental water governance, decision-making and investment is fundamental to building trust in the system.'**
>
> Australian Dairy Products Federation

> **'Volume is no longer the primary constraint, performance is. The community must be able to see clearly what environmental outcomes are being achieved from the water already held.'**
>
> Woodvale Farming Co.

This is tempered by the CEWH submission.

> **'The CEWH is the most transparent and highly regulated water holder in the Basin. The CEWH operates under more statutory obligations, reporting requirements and independent oversight than any other water holder in the Murray–Darling Basin.'**
>
> Commonwealth Environmental Water Holder

How the feedback will be used

How feedback will be used and next steps – Review Report

What we heard during the consultation process demonstrates that there is a wide range of Australians who are invested in the next stage of the Basin Plan. Several thousand people took the time to speak to us, write to us and develop ideas and proposals for the future of Murray–Darling Basin management. People shared everything from deeply personal lived experiences to rigorous peer-reviewed analysis of the options put forward in the Discussion Paper.

We heard from a wide range of people who care deeply about the future of the Basin, its people, environment, communities and economy. They included submissions from community members, First Nations peoples, agricultural and irrigation groups, environmental organisations, scientists, and all levels of government.

We recognise that there are strongly held opinions and disparate views on how to manage the Basin, at large and local scales. We will take on and consider your feedback in developing our final recommendations to government. As part of this, we will be clear about how your feedback has influenced our decisions.

As described in the submission process for the Discussion Paper, relevant information collected as part of the consultation, and where we have permissions to do so, has automatically been submitted to the review of the *Water Act 2007* (Cth), and to the Menindee Review.

Macquarie River, Dubbo, NSW.

The Water Act Review is required under s253 of the *Water Act 2007* (Cth), while the Menindee Review is considering the function and operation of the Menindee Lakes. This sharing of information is intended to ensure that stakeholders can have input to all three review programs without duplicating effort or losing valuable insights.

We thank everyone who took part in the consultation, including those who attended engagement activities and those who provided submissions. We value your contributions and will ensure they inform our recommendations to government for the next 10 years of Basin water management.

MDBA staff during consultation meetings for the Basin Plan Review Discussion Paper. Moama, NSW.

Mehi River, Moree, NSW.

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Murray–Darling Basin Authority

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Mildura | *Latji Latji Country*
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