



Australian Government



**Murray–
Darling
Basin
Authority**

MDBA Information Request

Productivity Commission

**Murray–Darling Basin Plan:
Implementation Review 2023**

August 2023

Published by the Murray–Darling Basin Authority
MDBA publication no: 18/23
ISBN (online): 978-1-922699-33-6



GPO Box 1801, Canberra ACT 2601

engagement@mdba.gov.au



1800 230 067



mdba.gov.au

© Murray–Darling Basin Authority 2023

Ownership of intellectual property rights



With the exception of the Commonwealth Coat of Arms, the MDBA logo, trademarks and any exempt photographs and graphics (these are identified), this publication is provided under a *Creative Commons Attribution 4.0* licence. (<https://creativecommons.org/licenses/by/4.0>)

The Australian Government acting through the Murray–Darling Basin Authority has exercised due care and skill in preparing and compiling the information and data in this publication. Notwithstanding, the Murray–Darling Basin Authority, its employees and advisers disclaim all liability, including liability for negligence and for any loss, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying upon any of the information or data in this publication to the maximum extent permitted by law.

The Murray–Darling Basin Authority's preference is that you attribute this publication (and any Murray–Darling Basin Authority material sourced from it) using the following wording within your work:

Cataloguing data

Title: MDBA Information Request, Murray–Darling Basin Authority Canberra, 2023. CC BY 4.0

Accessibility

The Murray–Darling Basin Authority makes its documents and information available in accessible formats. On some occasions the highly technical nature of the document means that we cannot make some sections fully accessible. If you encounter accessibility problems or the document is in a format that you cannot access, please contact us.

Acknowledgement of the Traditional Owners of the Murray–Darling Basin

We acknowledge the Traditional Owners and Custodians of Country throughout the Murray–Darling Basin and their continuing connection to land, waters and community. We offer our respects to the people, the cultures and the Elders past, present and emerging.

Aboriginal people should be aware that this publication may contain images, names or quotations of deceased persons.

Version control			
Version	Revision date	Author/modifier	Distributed to
v.			

Contents

MDBA Response	1
Information request 1: Implementation challenges	1
Information request 2: Water Resource Plans	1
Information request 3: Water quality	6
Information request 4: Critical human water needs (CHWNs)	7
Information request 5: Environmental water planning and management	9
Information request 6: Recovering water for the environment	17
Information request 7: Sustainable Diversion Limit Adjustment Mechanism (SDLAM): supply measures	18
Information request 8: SDLAM: constraints easing.....	20
Information request 9: Northern Basin Toolkit.....	20
Information request 10: Monitoring, evaluation and reporting	22
Information request 11: Water trading rules.....	23
Information request 12: Climate change	23
Information request 13: First Nations water interests.....	26
Information request 14: Helping communities adjust	30
Information request 15: Community engagement	31
Further Reading	33

MDBA Response

In addition to the responses provided below, please refer to the [MDBA's Submission to the Productivity Commission review of Basin Plan Implementation 2023](#).

A comprehensive list of additional web links is provided at the end of this document.

Information request 1: Implementation challenges

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

The Basin Plan is implemented by Basin governments – namely, the Australian Government and the governments of New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory.

The MDBA's role is to support governments by developing, evaluating and reviewing the Basin Plan. In doing so, the MDBA provides expertise and knowledge on complex water matters, drives and facilitates science and analysis, and builds relationships to foster a shared understanding of Basin values and perspectives.

The MDBA's [June 2023 Basin Report Card](#) highlights significant implementation challenges. The main commitments to be addressed are:

- the submission and accreditation of the outstanding New South Wales water resource plans
- the northern Basin toolkit initiatives experiencing delays in implementation.
- the sustainable diversion limit adjustment mechanism (SDLAM) projects.

Information request 2: Water Resource Plans

2(a) What are the reasons for the delays to the accreditation of WRPs by the statutory deadlines (amended to December 2019)? What changes have been made to improve the efficiency of the accreditation process since 2018? What more could be done?

Reasons for delays

Each of the WRPs for Victoria, Queensland, South Australia and the ACT were accredited by 30 June 2020.

New South Wales is responsible for preparing 20 of the 33 WRPs in the Basin. As at end of July 2023, 5 of the NSW WRPs have been accredited, 8 are with the MDBA for assessment and 7 have been withdrawn and are being redrafted by NSW.

The plans must meet all 55 requirements of Chapter 10 of the Basin Plan (and the associated sub-requirements) to be recommended to the Minister for accreditation. Requirements are weighted equally,

they are not risk-based, and the MDBA must consider every requirement and sub-requirement before making its recommendation.

One of the causes of the delay is the challenge faced by Basin states in translating their state water management arrangements into proposed WRPs in a way that is consistent with all 55 requirements and the associated sub-requirements. Where state water management arrangements do not directly align with Basin Plan requirements, such as in the identification and protection of planned environmental water, the process of resolving issues and making necessary changes to state water management arrangements has caused delays in accreditation of WRPs. This can be an iterative and time-consuming process.

Where a WRP that has been formally submitted to the MDBA for assessment has been found to be inconsistent with Basin Plan requirements, formal processes involving an Authority recommendation not to accredit the WRP, or the Basin state withdrawing, amending, and resubmitting the WRP, results in a delay to the accreditation process. During this time, changes to state water management arrangements can lead to inconsistencies with WRP material that impact accreditation, creating the need for additional revisions.

The number and complexity of requirements for WRPs in Chapter 10 of the Basin Plan has led to highly complex WRPs that comprise multiple documents and incorporate a range of state instruments and strategies. This complexity, with cross-referencing across numerous state instruments, strategies and plans means WRPs are prone to drafting errors and internal inconsistencies resulting in an invalid instrument which cannot be accredited.

What changes have been made to improve efficiency of the accreditation process since 2018?

The MDBA continues to work with Basin states to improve the efficiency of the WRP accreditation process, with particular focus on improving the resolution of issues in draft WRPs before they are formally submitted to the MDBA for assessment.

Where policy issues or interpretation of Basin Plan requirements are preventing the progress of a WRP to accreditation, formal engagement protocols have been set up between the state government and the MDBA to support efficient resolution. This has helped to progress issues more efficiently than previous iterative processes. In instances where officer-level engagement has been unable to reach a resolution, issues can then be escalated for executive intervention.

To manage the impact of drafting and referencing, the MDBA has introduced 'pre-submission' and 'pre-confirmation' checks before the WRP package is formally submitted for assessment. These checks enable the MDBA to review the WRP package for outstanding policy issues, editorial errors or other material issues. Accreditation issues identified during these informal pre-submission steps can then be resolved by the Basin state without the need to follow formal processes of withdrawal and resubmission or the MDBA issuing a formal recommendation not to accredit the WRP.

What more could be done?

Please refer to the MDBA submission to the Productivity Commission (2023) part B question 2 for further information regarding WRP assessment and accreditation process.

While minor improvements continue to be made to increase the efficiency of the WRP accreditation process, options to further streamline the process are constrained by provisions in the Basin Plan and *Water Act 2007*. The Act prescribes much of the content of Chapter 10 of the Basin Plan, and the processes relating to withdrawal and resubmission of proposed WRPs (section 73).

The Regulatory Design focus area of the 2026 Basin Plan Review provides an opportunity to address unnecessary complexity in the 55 WRP requirements in Chapter 10 of the Basin Plan. Amendments to Chapter 10 could alleviate some of the current burden on Basin states in the drafting and amendment of WRPs, and on the MDBA in assessing WRPs and future amendments for consistency with Chapter 10 requirements. Such changes should only happen after NSW has completed its first generation of WRPs.

2(b) What criteria will be used in 2025 to assess the operational effectiveness of accredited WRPs? What reporting requirements will be used to support the assessment?

The assessment of operational effectiveness in the 2025 Basin Plan Evaluation will be driven by the legislative requirements of the evaluation (as set out in Chapter 13 of the Basin Plan) and described in the 2026 Basin Plan Review.

The reporting requirements to support the 2025 Basin Plan Evaluation are set out in Schedule 12 of the Basin Plan. The reporting requirements of particular relevance to the assessment of effectiveness of WRPs are:

- Matter 18: The efficiency and effectiveness of the operation of WRPs, including in providing a robust framework under a changing climate.
- Matter 19: Compliance with WRPs.

The timing and responsibility for this reporting is:

- Matter 18: Reporting every 5 years (2024 will be the first year this reporting has been undertaken), to be reported by MDBA and Basin states.
- Matter 19: Report annually by Basin states.

Matter 18 reporting will draw insights and conclusions that relate to the operation of WRPs as a collective planning framework, and compliance of individual plans is reported through Matter 19. This reporting will be used as an input to answer the following Key Evaluation Questions:

- KEQ (b) to what extent have the objectives, targets and outcomes set out in the Basin Plan been achieved?
- KEQ (d) what, if any, unanticipated outcomes have resulted from the implementation of the Basin Plan?
- KEQ (e) how could the effectiveness of the of the Basin Plan be improved?
- KEQ (f) to what extent were the actions required by the Basin Plan were suited to meeting the objectives of the Basin Plan?

The 2025 Basin Plan Evaluation will assess the effectiveness and efficiency of WRPs as a ‘planning system’ rather than assess the operation of individual WRPs (as compliance with WRPs is the responsibility of the IGWC). This information will be important for the Regulatory Design Theme of the 2026 Basin Plan Review. The assessment will cover the various steps in the water resource plan lifecycle, including the

development, assessment, accreditation, operation and review/amendment processes for WRPs. The MDBA is currently preparing more detailed criteria for these assessments.

Matter 19 reporting as well as reports published by the IGWC will be used in the 2025 Basin Plan Evaluation.

2(c) How have water planning and management practices (by the MDBA and the States) changed as a result of WRPs being implemented?

The changes to water planning and management practices brought about by developing and implementing WRPs have been extensive. They include:

- incorporation of Basin state water management arrangements into Commonwealth law
- establishment of sustainable diversion limits where accredited WRPs are in place
- the first Basin-wide comprehensive assessment of risks to water resources and where accredited WRPs are in place, the management of those risks under Commonwealth law
- improved estimates of the amount of water taken for consumptive use, and ongoing improvement to the metering and measurement of water take
- establishment of new reporting and accounting arrangements for water in accordance with Basin Plan sustainable diversion limit compliance requirements
- a water accounting framework that includes water take by previously unaccounted for interception activities (including floodplain harvesting)
- enhanced hydrological modelling capacity
- an ongoing program of independent audits to assess compliance with water management arrangements
- requirements to define and maintain the protection of planned environmental water
- plans for the management of water resources in response to extreme events
- requirements to demonstrate consideration of long-term environmental watering plans in the management of water resources
- improved involvement of First Nations people in management of Basin water resources, including in the identification of First Nations objectives and outcomes for water management.

The majority of changes to water planning and management practices resulting from the implementation of WRPs have occurred at the Basin state level.

2(d) MLDRIN and NBAN raised several concerns in their advice statements submitted for WRP accreditation for part 14. Specifically including (but not limited to):

- a lack of targets
- incomplete fulfilment of native title and cultural heritage requirements
- inadequate consultation
- inadequate sign off processes
- inadequate consideration of previous input.

Is the MDBA or any other agency required to address these concerns given these WRPs have been accredited?

In assessing each proposed WRP, the MDBA seeks advice from 'relevant Indigenous organisations' on the extent to which a proposed WRP has met Basin Plan requirements relating to Indigenous values and uses of water resources (Part 14 of Chapter 10 of the Basin Plan). The content of this advice varies across WRPs; each assessment is contextual and is affected by a number of factors including the state government's approach to engagement and the degree to which the views of First Nations people have been reflected in the proposed WRP.

For some proposed WRPs, this advice has supported a positive assessment (i.e., that a proposed WRP has met the requirements of Part 14 of Chapter 10 of the Basin Plan), for others, the advice has highlighted specific concerns with the degree to which the Basin state has engaged with or reflected the views of First Nations people in the WRP material. Only those proposed WRPs that the MDBA assessed as meeting each of the requirements of Chapter 10 have been recommended for accreditation.

Accredited WRPs in New South Wales include a commitment to further consultation with First Nations people in the 12 months following accreditation, to seek to resolve outstanding concerns relating to the Indigenous values and uses requirements.

A common theme in the Part 14 advice received by the MDBA from First Nations people has been that the requirements of Part 14 are themselves inadequate. A view expressed in much of the advice received by the MDBA was that the terminology used in the Part 14 requirements, specifically provisions including the terms 'have regard' and 'may', weaken the requirements and make them unenforceable. The requirements of Part 14 mean First Nations advice is not determinative in any decision to recommend a WRP for accreditation and neither is it a power of veto in relation to accreditation.

The MDBA and Basin governments are committed to listening to and reflect the views of First Nations people, incorporating their understanding and their connection to the Basin and its waterways. The MDBA maintains a strong, clear commitment to working with First Nations people in all aspects of the ongoing management of the Basin.

The MDBA will support First Nations people to gather and provide input to the 2026 Basin Plan Review, including testing policy options. The review provides an opportunity for the MDBA to work with First Nations to address concerns raised in advice provided to the MDBA to support assessment of Part 14 of Chapter 10 of the Basin Plan.

2(e) What lessons can be learnt from the WRP process in relation to First Nations consultation and involvement?

First Nations have contributed to the process of WRP development and assessment principally through consultation and submission – that is by participating in consultation processes with:

- Basin state governments about water matters that affect them within the Basin and the preparation of content for WRP purposes (Part 14 Chapter 10 of the Basin Plan); and
- the MDBA in the course of the Authority's assessment of proposed WRPs. This has included consultation through representative organisations such as MLDRIN and NBAN.

Since the Basin Plan came into force there has been an important shift in the recognition of First Nations people's values and uses of water across the Basin. Community expectations and knowledge on these issues has progressed considerably over the last decade and there is much more to be done.

Effective and meaningful consultation takes time and while there is opportunity, there are also challenges, including those of:

- distance and geographic separation;
- ensuring contemporary and current understandings of representation and cultural authority;
- building and maintaining engagement and consultation capacity
- times when there is not agreement between First Nations or that expectations of First Nations can be quite different.

The MDBA has observed that state engagement with First Nations in the development of WRPs has been challenging. Advice provided to the MDBA by First Nations has put forward a view that the effectiveness of consultation is constrained by the fact that WRP requirements do not mandate Basin states to act on the outcomes from the consultation. In some cases, the effectiveness of the consultation process was limited by its repetitive nature, with some nation representatives needing to provide the same information at multiple meetings.

The development of WRPs has provided the opportunity for First Nations to articulate their ambitions for involvement in water resource management. Some state governments have taken the opportunity of WRP consultation with First Nations to progress negotiated outcomes for meaningful change relating to both water entitlements and outcomes at the whole-of-state scale.

Basin states that appear to have viewed consultation with First Nations as a way to progress genuine involvement of First Nations in water resource management were largely supported in progressing their WRPs through to accreditation by First Nation representatives. Conversely, those that engaged in a way that reflects the minimum required by the Basin Plan have received less support from First Nations on the content of their WRPs.

Information request 3: Water quality

3(a) What is the MDBA's response to the [2020 Review of water quality targets in the Basin Plan](#) and what views have Basin State Governments provided? What is the timeframe for responding to and/or implementing the recommendations?

In response to the [2020 review of water quality targets](#), which was commissioned by the MDBA, a program of work is underway to review and propose improvements to the targets and objectives found to be ineffective. This will inform the 2026 Basin Plan review.

Basin states, through the Water Quality Advisory Panel (WQAP), were involved in the preparation of a collaborative workplan that sets out the timeframe for responding to the recommendations from the 2020 Review of water quality targets. They are supportive of the workplan and, through the WQAP and the Basin Salinity Management Advisory Panel (BSMAP), have provided comments and feedback on the draft scope for reviews that to date have either commenced or been completed. Basin states are key stakeholders in the consultation process for these reviews, which are being conducted under the joint governance arrangements through either the WQAP or the BSMAP, with Basin state members invited to participate in project steering committees overseeing the work.

To date, a review of the flow management target for dissolved oxygen has been completed and a review of the salt export objective and the flow management targets for salinity at the Milang and Burtundy reporting sites will be undertaken throughout 2023-24.

A review of WRP groundwater and irrigation water quality targets, along with a review of the objective for raw water to be treated for human consumption, are planned for completion in 2024-25.

Scoping has also started for the development of a Cultural use objective relating to water quality, as recommended in the review. This will require working closely with First Nations people, with early engagement being critical to develop an objective which complements the aspirations of First Nations Groups in the Murray-Darling Basin.

The outcomes from these reviews will identify options to improve the water quality objectives and targets in Chapter 9, which are key themes to be investigated as part of the 2026 Basin Plan Review.

3(b) Are water quality measurements currently being assessed against targets in Water Quality Management Plans (WQMPs), and how are these targets used in relation to the water quality targets in the Basin Plan?

Water Quality Management Plans (WQMPs) are part of each WRP prepared by state governments in accordance with the Basin Plan and accredited by the Australian water minister. South Australian, Victorian, Queensland and ACT WRPs have been accredited, which means WQMPs are active in those states. Of the 20 water resource plans in New South Wales, 5 have been accredited as at 31 July 2023.

The 2025 Basin Plan Evaluation will consider reporting by the states on progress towards meeting water quality targets in their WQMPs. The reporting is expected to demonstrate how the measures to address water quality risks arising from the key causes of water quality degradation are being monitored and assessed in those WRP areas with accredited plans.

The WQMPs in operation to date have either adopted the targets in the Basin Plan or proposed alternative targets consistent with the Basin Plan under s10.32. The measurements identified in WQMPs are prepared having regard to the targets in s10.32, and the measurements are expected to contribute to the achievement of the objectives set out Chapter 9 of the Basin Plan.

The targets for managing water flows in s9.14 of the Basin Plan have to be regarded when managing water flows or when making decisions about the use of environmental water. The MDBA, Basin states and the Commonwealth Environmental Water Holder each report annually with respect to these targets. Each year the MDBA also assesses achievement against the [flow management targets for salinity at the five Basin Plan reporting sites](#) under s9.14(6) and [achievement of the salt export objective](#) under s9.09(5).

Information request 4: Critical human water needs (CHWNs)

4(a) Following flooding events in the northern Basin in 2022, has there been any assessment of the provisions in WRPs for meeting CHWNs during extreme events? If so, what were the findings of this assessment?

The Basin Plan's provisions for CHWNs were forged during the Millennium Drought. They reflect the lessons from this extremely dry period, the worst on record prior to the Basin Plan. Accredited WRPs have fully incorporated Basin Plan CHWN requirements into State water management practices. Specifically,

Part 13 of Chapter 10 of the Basin Plan requires that WRPs describe how water resources will be managed during:

- extreme dry periods
- water quality events that render water unusable
- events that may result in the suspension of regional water plans.

Management of CHWNs varies from state to state but is generally based on a staged risk level with corresponding management strategies. Basin state WRPs generally identify the critical human water requirements within the WRP area, establish processes for progressively introducing measures to support the highest priority needs as circumstances become more critical, and detail measures for managing water quality and quantity during extreme events based on the criticality of the event.

It is the responsibility of Basin States to implement the CHWNs provisions in WRPs. WRPs are also required to include arrangements for review of these measures to ensure they remain based on the best available information.

Ensuring compliance with arrangements to meet CHWNs in WRPs, and commitments to review those arrangements, is the role of the IGWC.

4(b) What changes have been made since 2018 in how the MDBA and WaterNSW operating plans interact to manage the risk to the supply of CHWNs in the Lower Darling?

The MDBA's access to the resource at the Menindee Lakes, and hence flows to the Lower Darling, are determined by the Murray–Darling Basin Agreement and the [Objectives and Outcomes for river operations in the River Murray System](#).

The responsibility for the provision of CHWN in the Lower Darling rests with the NSW Government through WaterNSW.

In the knowledge that the supply of water to local communities in drought is an important issue, the MDBA has been proactive in proposing options through Water Liaison Working Group, the River Murray Operating Committee and the Basin Officials Committee.

There has not been any significant change in the triggers or management of the Menindee Lakes since 2018. The MDBA is unable to unilaterally amend its operations in a manner that has the potential to have an impact on water entitlements for any of the states that are signatories to the Murray–Darling Basin Agreement.

When the volume of water in the Menindee Lakes is high enough to be a resource shared between the NSW and Victorian governments, as the manager of the River Murray system the MDBA continues to work closely with WaterNSW to draw water from the lakes in such a way that optimises the volume held in the most water-efficient lakes, in advance of the water levels dropping to 480 GL, from which point the lakes becomes a resource for NSW alone.

Information request 5: Environmental water planning and management

5(a) What have been the key developments and changes in environmental water planning and management since 2018?

A review and update of the [Basin-wide environmental watering strategy](#) was completed in 2019.

Long-term watering plans were prepared for all surface water catchments in the Basin. One review and an update of long-term watering plans was completed for each of the states of Victoria, Queensland and South Australia.

A review of the [Environmental Watering Plan](#) was completed in 2020.

The method for determining the Basin's annual environmental watering priorities has been improved by [new analysis](#) of the vulnerability of ecosystems and the biota that depend on them. Key findings of this analysis have been used in the priorities for native vegetation and waterbirds in the 2023/24 water year.

The coordination of the use of environmental water has become more sophisticated and collaborative. In the north, a [Northern Basin Environmental Watering Working Group](#) has been established and is administered by the Commonwealth Environmental Water Holder. In the south, [the Southern Connected Basin Environmental Watering Committee](#) (SCBEWC) coordinates delivery of water for the environment in the River Murray System across multiple environmental water holders and jurisdictions. Recent improvements include:

- Key SCBEWC documents have been made publicly available to increase transparency for communities:
 - [Terms of reference](#)
 - [Annual coordinated water planning](#), and
 - [the last five years of annual reports](#)
- SCBEWC has moved from site to multi-site, and now to system-scale planning by introducing the coordinated delivery of water for the environment between the River Murray and its tributaries in spring to maximise environmental outcomes (the southern spring flow).
- In 2020-21 Murray Lower Darling Rivers Indigenous Nations (MLDRIN) became an advisory member of SCBEWC, and First Nations guidance was formally included in SCBEWC's annual water planning process through the inaugural First Nations Environmental Watering Forum held in Mildura in April 2021. The forum included representatives from twelve First Nations across the southern Basin providing input to system-scale planning.
- Environmental water holders have come together with First Nations people to develop stories of First Nations involvement in environmental watering over the past several years.

5(b) Please provide the latest point in time data on held environmental water volume entitlements (GL LTDLE) by each Environmental Water Holder.

There is a range of owners of held environmental water (HEW) entitlements, reflecting the history of investment in water for the environment. The volume of HEW entitlements in the Basin (expressed as long-term diversion limit equivalent (LTDLE) volumes) as at 30 June 2022 are:

- CEWH – 1,949 GL/y

- Victorian Environmental Water Holder (VEWH) – 485 GL/y
- New South Wales government agencies – 533 GL/y
- South Australian Minister for Water and the River Murray – 86 GL/y
- Private organisations – 1 GL/y.

The Living Murray water portfolio is part of the state government entitlements listed above and is managed by the MDBA to give effect to joint government decisions. The jointly held entitlements consist of 489 GL/y owned by:

- VEWH – 223.5 GL/y
- New South Wales government agencies – 223.1 GL/y
- South Australian Minister for Water and the River Murray – 42.5 GL/y.

The CEWH holds HEW entitlements in all Basin states except the Australian Capital Territory. All HEW in Queensland is owned and managed by the CEWH.

5(c) How are the roles and responsibilities of Commonwealth and state agencies in environmental water planning and management communicated to Basin communities (including during recent flood events)?

In 2022, the MDBA published a [guide to the environmental watering plan](#) in order to provide a plain English explanation of how Chapter 8: 'Environmental watering plan' of the Basin Plan guides the use of water for the environment. It includes information on the roles and responsibilities of Commonwealth and state agencies and was prepared with Basin communities in mind.

In recent years the management of water for the environment during times of flood has been communicated by the environmental water holder taking the action or, if appropriate, several environmental water holders in a coordinated approach. This included during events such as the small strategic release of water in the mid-Murray to create refuges or pockets of better water quality that would support fish and crayfish at risk of suffocation due to critically low oxygen levels as organic material was washed into rivers.

Over the past several years the clarity around the many different agency roles and responsibilities has improved, as has the level of communication with communities. If proactive community communication is needed across jurisdictions, joint media releases have been prepared, often coordinated by the MDBA, for example: [Joint Media Release: Record rain raises risk of water quality issues in the Murray–Darling Basin](#).

The MDBA facilitates communication of updates by the Commonwealth Environmental Water Holder to the Basin Community Committee, Peak Groups and regional community forums. The Commonwealth Environmental Water Holder also participates in regional listening tours led by the MDBA to provide communities with the opportunity to ask questions and hear first-hand about environmental water planning.

5(d) Where are the opportunities to simplify the Environmental Watering Plan (chapter 8 of the Murray-Darling Basin Plan) and its implementation?

Opportunities to simplify the Environmental Watering Plan and its implementation are being considered in the context of regulatory design for the 2026 Basin Plan Review. They range from improving the effectiveness of the Annual Environmental Watering Priorities (Refer to [Question 5g](#)), to reducing the

frequency of reviews as the environmental water management framework matures, and to better align the timing of reviews to best inform adaptive management.

More information is available in the MDBA Submission to the Productivity Commission (2023) implementation review part B question 2d - Environmental water management.

5(e) The 2019 review of the Basin Wide Environmental Watering Strategy (BWEWS) listed a number of areas for ongoing development and discussed the development of a work program. What has been the outcome of this work program?

- **Material changes from the 2019 review were expected to be included in an updated BWEWS in 2022. When will this update of the BWEWS occur?**
- **When is the next review of the Basin-wide environmental watering strategy?**

To guide the update of the [Basin-wide environmental watering strategy](#) in 2024, a work program was developed that sets out the scope of the update, how it will be delivered and communicated, and what resources are required.

The work program has been shared with the Basin states and the Commonwealth Environmental Water Holder (CEWH). A working group consisting of Basin states and CEWH representatives has been established under the Environmental Watering Committee, which will oversee the update of the Basin-wide environmental watering strategy scheduled for 2024.

5(f) What key changes are being made to long-term watering plans as they are reviewed and where are there further opportunities for improvement?

The Basin Plan outlines several activities that trigger a review and update of a long-term watering plan (LTWP), including the accreditation of a WRP. The MDBA provides advice to Basin states to assist in updating their LTWPs.

A summary of the key changes made to LTWPs as Basin states have completed their LTWP updates in 2020–2022 include:

- improved articulation of target and objectives for water-dependent ecosystems
- improved description of Environmental Watering Requirements (EWRs) with respect to duration, frequency, depth and timing
- improved descriptions of cooperative arrangements to deliver environmental water (e.g., NBEWG, consultation with the Commonwealth Environmental Water Holder)
- updated lists of priority environmental assets and functions
- better alignment with Basin Plan including the cross-reference of objectives with the Basin-wide environmental watering strategy and Chapter 8 Division 6 principles
- increased information included from State water planning instruments
- improved consideration of First Nations involvement in planning
- incorporation of updates on constraint management and complementary actions
- improved articulation of risks in relation to providing the EWRs of Priority Environmental Assets and Priority Ecosystem Functions.

Further changes to LTWPs would be triggered by any material changes to the Basin-wide environmental watering strategy, which is scheduled for update in November 2024. The updated LTWP must be

prepared within three months of a Basin-wide environmental watering strategy update, or another timeframe agreed to by the Authority and the Basin State. The BWS Working Group provides opportunity to identify potential synergies between the BWS update and future LTWP updates.

5(g) The 2021 Review of the Environmental Watering Plan found that annual Basin Environmental Watering Priorities were the ‘least effective component of the Environmental Management Framework’. What changes have been made (or are in-train) in response to this finding.

The method for determining Basin Annual Environmental Watering Priorities (Basin Priorities) has been improved by new analysis of waterbird and vegetation vulnerability. Key findings of this analysis have been used in the Basin Annual Environmental Watering Priorities for native vegetation and waterbirds in the 2023/24 water year. For more see [Assessing Vulnerability for use in Determining Basin-scale Environmental Watering Priorities \(dcceew.gov.au\)](https://www.dcceew.gov.au).

The Basin Priorities have included rolling multi-year priorities since 2017-2018. They guide environmental watering by the Commonwealth and state water holders over the medium-term to achieve the expected environmental outcomes with respect to the different resource availability scenarios. This ensures the priorities are set strategically. The 2020 Environmental Watering Plan review recommended that multi-year priorities continue to be identified in the Basin Priorities.

The potential for improved efficiency of the Basin Priorities will be considered in the context of regulatory design in the 2026 Basin Plan Review.

Please discuss the role that Basin Annual Environmental Watering Priorities perform and whether Basin Annual Environmental Watering Priorities should be retained?

The Basin Priorities guide the annual planning and prioritisation of environmental watering at a Basin scale to meet the Basin Plan’s ecological objectives and targets. They articulate the areas that Commonwealth and state environmental water managers should focus on when making decisions about when, where and how much water is provided for the environment in the year ahead as steps towards achieving the desired long-term outcomes as described in the [Basin-wide environmental watering strategy](#). The Basin Priorities are expressed at a mix of geographic scales from site-specific to Basin-wide, reflecting the ecology of species that are the focus of the strategy.

The potential for improvements in the Basin Priorities is intended to be part of the 2026 Basin Plan Review.

5(h) What key considerations determine how environmental water is prioritised, including during drought?

The key considerations in determining how environmental water is prioritised are set out in the [Basin Plan chapter 8](#) - Environmental Watering Plan, specifically Part 6: Principles and method to determine priorities for applying environmental water.

Of the principles, those of particular relevance include:

Principle 1—Consistency with principles of ecologically sustainable development and international agreements (which includes consideration of best available knowledge of maintaining the long-term resilience of the water-dependent ecosystem to risks and threats)

Principle 4 —Condition of environmental assets and functions (which considers urgency and likely response of the asset), and

Principle 6—Risks and related matters (which includes ecological opportunity costs of using environmental water for one outcome over another).

The method to be used has four steps:

1. determine the resource availability scenario; and
2. determine the management outcomes that apply to the resource availability scenario; and
3. consistent with the management outcomes that apply to the resource availability scenario, determine the provisional priorities for applying environmental water by applying the principles set out in Division 1 to priority environmental assets and priority ecosystem functions; and
4. refine those priorities based on seasonal, operational and management considerations in accordance with s8.62.

In response to the [Independent Assessment of the 2018-19 Fish Deaths in the lower Darling](#) recommendations (in particular, recommendation 17), agencies including the MDBA were asked to undertake multi-year check-ins and risk assessments to assist with managing environmental water during prolonged dry spells and to take into account uncertainty in future inflows. The Southern Connected Basin Environmental Water Committee (SCBEWC) and the Northern Basin Environmental Watering Group (NBEWG) are the relevant planning and operational coordination forums that support planning and delivery of environmental flows by multiple environmental water holders.

Since 2019-2020, SCBEWC has conducted mid-water-year risk assessments in advance of the higher risk summer season. Risk assessments consider antecedent and forecast seasonal conditions, potential for water quality risks, how planned watering activities are tracking, and whether watering plans need adjustment to reflect emerging seasonal risks and carryover needs for the following water year. It has included work to collate lessons learnt from delivering water during the droughts this century, assessing critical needs of high priority refuge sites, agreeing principles for identifying critical environmental water needs in extreme dry scenarios, and sharing portfolio information across water holders. This mid-year check-in and risk assessment approach has assisted with managing environmental water during prolonged dry spells in the southern basin.

Similarly, NBEWG meet regularly and in response to changing seasonal conditions, such as prolonged dry spells, to discuss coordinated environmental water management. The Commonwealth Environmental Water Office and NSW government coordinated joint environmental releases to achieve whole-of-north connected flows in 2018 (the Northern Connectivity Event), 2019 (the Northern Fish Flow) and 2020-21 (the Northern Waterhole Top-Up).

5(i) How is climate change and variability considered in the environmental water planning framework?

Climate change and variability are considered in the environmental water planning framework stipulated in the [Basin Plan chapter 8](#) - Environmental Watering Plan as set out in Question 5(h).

The MDBA considers the resource availability scenario (along with Bureau of Meteorology forecasts) in determining the Basin Annual Environmental Watering Priorities for the upcoming water year. The resource availability scenario is calculated based on antecedent climate conditions over the previous year (rainfall, runoff, and soil moisture) and surface water availability in public dams of regulated systems.

Climate change, including its impact on the availability and use of environmental water, will be a key focus of the 2026 Basin Plan Review.

5(j) How is environmental water prioritised for threatened/endangered species?

The main mechanism by which the MDBA guides the prioritisation by environmental water holders of their water resources is through the Basin Annual Environmental Watering Priorities (see Question 5g). The priorities guide the Commonwealth and state annual planning and prioritisation of environmental watering across the Basin consistent with the Basin Plan s8.29 - Preparation of Basin annual environmental watering priorities.

They represent the annual steps needed to achieve the Basin Plan's ecological objectives and targets, some of which relate to threatened/endangered species. For example, a broad priority for the 2023/24 water year is *'Supporting the survival and viability of threatened species and communities'* and this is supported by more detailed priorities, such as *'Support viable populations of threatened native fish, maximise opportunities for range expansion and establish new populations.'*

How are outcomes for threatened/endangered species in the Basin monitored, reported and evaluated?

The MDBA supports several programs and research activities to monitor and report on environmental outcomes, including the [Murray-Darling Basin Fish Survey](#), the aerial waterbird survey of significant environmental assets, The Living Murray (TLM), the [Basin Condition Monitoring Program \(BCMP\)](#) and [Murray-Darling Water and Environment Research Program \(MD-WERP\)](#).

The [Basin Condition Monitoring Program](#) is a \$7.5m program to report on social, economic and environmental conditions in the Basin. Detailed design and implementation of projects commenced in mid-2022, with the Program due to be completed by end of 2025. Two projects include monitoring of threatened/endangered species in the Basin:

- Biodiversity monitoring using environmental DNA (eDNA) technology – this project will trial the use of eDNA to expand and improve current monitoring capabilities.
- Floodplain habitats and threatened wetland fish – this project is being designed to address a monitoring gap for floodplain habitats, aquatic vegetation and native fish including the critically endangered flathead galaxias (*Galaxias rostratus*), endangered Murray hardyhead (*Craterocephalus fluviatilis*), and threatened purple spotted gudgeon (*Mogurnda adspersa*).

The Living Murray (TLM) focuses on improving the health of six important icon sites along the River Murray to benefit the plants, animals and communities that the river supports, including many threatened and endangered species. Monitoring through TLM is:

- tracking the environmental condition of the icon sites against ecological objectives;
- evaluating the ecological response to environmental water delivery and environmental works; and
- tracking system-scale responses to water regimes in the River Murray.

The [Murray-Darling Water and Environment Research Program](#) is a 4-year, \$20 million Australian Government initiative to strengthen scientific knowledge of the Murray-Darling Basin through generating new knowledge, innovation and tools. The *Basin-wide analysis of protection and conservation*

prioritisation project is evaluating gaps in the existing network of high conservation value aquatic ecosystems (icon sites, Ramsar sites, and key environmental assets and ecosystem functions) and will improve prioritisation practices for threatened/endangered species.

The 2025 Basin Plan Evaluation will consider the best available evidence to determine if threatened species outcomes are being met and identify areas for improvement.

5(k) What actions (if any) has the MDBA taken in response to the 2022 Inspector-General of Water Compliance assessment of River Murray operations and environmental water management?

The MDBA welcomed the Inspector-General of Water Compliance's report '[Steady as it flows' An assessment of River Murray operations and environmental water management \(igwc.gov.au\)](https://www.igwc.gov.au/assessments/river-murray-operations-and-environmental-water-management).

The MDBA continues to invest significant time in improving the models that assist decision making in River Murray operations, including through the Integrated River Modelling Uplift (IRMU) and continuous development of the Source model. The Source model has been improved over the past 2 years and was used extensively during the 2022-23 flooding in the River Murray to better predict flow peaks and timing.

In addition, the MDBA has been an active partner in the work led by the Bureau of Meteorology with water trade participants to bring about the standardisation of trade data, aimed at improving community understanding and confidence in a more transparent water market.

The MDBA continues to work closely with environmental water holders to refine the standard of measurement of 'return flow' sites and improve understanding of return flow. As an example, improved measurement of the return flow of environmental water through the Great Darling Anabranch has been underway by the NSW in the past year.

5(l) Are Prerequisite Policy Measures (PPMs) operating as intended and where are there opportunities for improvement?

[Prerequisite policy measures](#) are legislative and operational rule changes that will improve the use, management and accounting of water for the environment to maximise the outcomes of water recovered for the environment without impacting on other water users. The Basin Plan outlines these measures and required them to be implemented by 1 July 2019.

These measures have been enacted through state legislative changes, amendments to local water sharing plans and changes to regulations and operational manuals.

The [MDBA assessed PPMs in 2019](#) and determined them to be in place, whilst also initiating a program of work with Basin states to ensure further implementation.

Environmental water protection measures are being successfully applied to protect environmental flows and to support environmental outcomes as follows:

- In the southern Basin, 926.9 GL of directed releases and tributary return flows were successfully protected to reach the lower Murray and South Australia in 2021-22.
- In the northern Basin, the first annual review of active management was published, with 103.5 GL of environmental water was protected by active management rules in the Macquarie-Bogan and Barwon-Darling in 2020-21.

The protection of environmental water is maturing, substantial progress has been made, but sustained collective effort is still required. As at October 2022, 31 of the 86 protection measures in the implementation plan have been completed. Implementation of the remaining 55 protection measures is being tracked, including 45 measures in the southern Basin and 10 measures in the northern Basin. This includes trialling some measures before establishing permanent arrangements.

What is the MDBA's process for assessing the adequacy of PPMs?

As part of its 2019 assessment of PPMs, the MDBA set out a [PPM assessment framework](#). This assessment framework was independently reviewed. The continued improvement of PPMs is monitored through an annual review by the joint Basin governments' Environmental Water Committee.

What changes have been made to PPMs, since their introduction, to improve their effectiveness?

BOC 70 (2019) agreed that the MDBA, in consultation with the States, would develop an implementation plan and governance arrangements to underpin environmental water protection improvements across the Murray-Darling Basin, and strengthen collaboration with regards to operating arrangements for environmental water.

The Environmental Water Protection Strategy and Implementation Plan were developed by MDBA in collaboration with the states, the Commonwealth, and the Commonwealth Environmental Water Office by 2021 and endorsed at BOC 80 (April 2021).

The BOC Tier 1 Environmental Water Committee provides oversight the implementation of the strategy and their next annual review is scheduled for October 2023.

5(m) What efforts have been made since 2018 to improve the coordination of environmental watering activities in the River Murray (managed by the MDBA on behalf of NSW, Victoria and SA)?

Environmental water holders continue to work together and with river operators to improve the coordinated delivery of water for the environment. Since 2018, environmental water management across the southern connected Basin has evolved from largely site-based with occasional multi-site watering to now include large-scale coordinated watering events to improve downstream and system-wide connectivity outcomes (southern spring flow). The number, scale, ambition, efficiency, and most importantly outcomes of coordinated watering events have significantly increased over the last five years.

This includes coordinating flows across multiple environmental water holders and river operators across the River Murray and its tributaries. This allows held environmental water to be accurately and efficiently released from storage and to be protected to reach multiple large wetlands downstream and achieve end of system connectivity outcomes.

In 2019 environmental water holders were delivering over 2,000 GL of environmental water through the Murray system. This included 27 coordinated events between water holders resulting in significantly improved system connectivity outcomes. Under the hot and dry conditions of the time, 39% of the water that reached the South Australian border was held environmental water released from storages to flow downstream to maintain habitats, water quality and connectivity.

In spring 2020 more than 320 GL in coordinated flows were planned and delivered across the Murray, Goulburn and Murrumbidgee rivers under regulated conditions. Nearly 25 agencies were involved in

working together to deliver the flows to multiple Ramsar wetlands and achieving a River Murray peak flow of 17,806 ML/day at Yarrawonga (targeting just below the regulated constraint of 18,000 ML/day). The flow also had substantial duration with 18 days of flow above 15,000 ML/day which achieved significant floodplain and productivity outcomes for wetlands and floodplain of the Ramsar-listed Barmah-Millewa Forest.

By 2021-22 coordinated flows were being planned and delivered under unregulated and wet conditions. Environmental water holders worked together with land and water managers, river operators and local landholders to build flows to support mid-Murray ecosystems while staying within mid-Murray constraint levels. Numerous billabongs, creeks and flood-runners on both sides of the Murray received their first drink since 2016.

Where are there further opportunities to improve coordination?

Improved coordination has been supported by strengthened relationships and technical capability across agencies and jurisdictions in the planning and delivery of environmental flows.

Great advancements have been made over a relatively short period, which require commensurate progress to update the planning and operational tools available to river operators and environmental water managers. New tools, systems and strategies are needed to support the step change needed to fully realise Basin Plan healthy river outcomes.

The [Enhanced Environmental Water Delivery \(EEWD\)](#) project provides the opportunity to update the rules of river operations. Continued implementation of the EEWD project is essential to improve the planning and operational tools available to environmental water holders and river operators to support more complex flow management and to optimise environmental outcomes, including the achievement of relaxed constraints.

Information request 6: Recovering water for the environment

6(a) Is the MDBA aware of any legislative or other restrictions on transferring excess water recovery volumes from 'bridging the gap' to the Efficiency Measures program?

Presently the definition of 'efficiency entitlement' in s7.02 of the Basin Plan places limitations on the type of entitlement that can be registered as an efficiency entitlement. As such, to recognise 'excess' entitlement recovery under the Bridging the Gap as a credit to the efficiency measures 450GL target would require legislative amendments to the Water Act and/or the Basin Plan.

Additionally, until all WRPs are accredited and any proposed Baseline Diversion Limit re-estimates settled, long term diversion limit extraction factors (LTDLE or 'Cap' factors) cannot be finalised. These factors are essential to calculating the extent to which the Commonwealth's environmental water holdings meet the Basin Plan's water recovery targets. This will confirm if, or to what extent, there has been any water acquired that is in 'excess' of the targets. Subsequently, transferring any perceived 'excess' ahead of the WRP accreditation presents a risk that the 'excess' may not materialise and the Commonwealth would still be required to acquire water in a given SDL resource unit.

6(b) What are the expected environmental impacts of failing to achieve the full Bridging the Gap water recovery volume? How will these hydrological and environmental outcomes be monitored and reported on?

The Commonwealth Government is in the process of assessing the outcome of the tender to purchase water required under Bridging the Gap.

While the remaining water recovery target is relatively small compared to the volumes already attained, the volumes are crucial to ensuring sustainable management in the specific catchments. The 2017-2019 drought conditions, where limited water was available to maintain environmental assets across the Basin, has shown how important it is that the task be completed.

Information request 7: Sustainable Diversion Limit Adjustment Mechanism (SDLAM): supply measures

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

What are the reasons for this?

Basin states are responsible for the development and implementation of supply and constraints projects, with funding and oversight by the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

The MDBA has a role in the delivery of one project – the EEWD project, for which the MDBA River Management Portfolio has been engaged as a delivery partner by Basin Governments. The unanticipated challenges for fieldwork, ground surveys and community engagement aspects due to the global COVID pandemic and the significant flooding experienced in 2022, has been reported by Basin states as reasons for the slow progress to date against expected timelines.

What is the MDBA doing, or planning to do, to address this?

The MDBA continues to offer support to the states in the delivery of their projects contracted with DEECCW or, in some cases, directly by Basin governments through progression of modelling, technical support and Murray-Darling Basin Agreement referrals. The EEWD project, where delivery is being managed by the MDBA River Management Portfolio, continues to progress and is expected to contribute to the SDL adjustment and environmental outcomes even though it will not be fully implemented at the currently legislated reconciliation date.

For more information, please refer to part B question 1 of the MDBA Submission to the Productivity Commission (2023).

7(b) When is the next SDLAM assurance report expected to be published? Will the findings continue to be broad (along the lines of the 2021 and 2022 reports), or will they provide more detailed estimates along the lines of the 2020 report?

The [2023 Sustainable Diversion Limit Adjustment Mechanism assurance report](#) was published on 25 July 2023.

The findings of the 2023 Assurance report are in line with the 2021 and 2022 reports and summarise all previous reports as it is the final SDLAM assurance report before reconciliation in 2024.

7(c) Since the 2020 assurance report, has the MDBA completed any further modelling to estimate the contributions of individual supply measure projects? If so, how have the estimates changed relative to those provided in the 2020 assurance report?

The MDBA has not undertaken any further modelling of individual project contributions.

7(d) Why have project milestones not been made public? How many supply and constraints projects could be completed if reconciliation were to be delayed by six months, a year, or two years?

As per question 7a, this is a matter for DCCEE, but note that all funding instruments milestone funding stages have been made [available online](#).

The MDBA has not forecast completion for a 6-month, 12-month or 24-month extension to the current Basin Plan reconciliation timings.

7(e) Please provide the 'Method B modelling report', which is referred to in the 2020 SDLAM progress report (p. 29) as underpinning the MDBA's interim advice.

This is not a standalone modelling report. The Method B referred to in the 2020 progress report is based on the modelling assessments undertaken over multiple years by adding more supply projects into modelling packages when they become available. Based on the changing adjustment volume, some projects' relative contribution can be better understood.

7(f) Please provide updated estimated costs for each SDLAM project (noting that in the most recent SDLAM dashboard, MDBA indicated that this data would be provided in a future update).

Please see the response to question 7a.

7(g) How have risk ratings in the SDLAM dashboard been calculated? Do ratings represent performance or progress over the time between dashboards, or overall progress? Why has the dashboard not been updated since 2022?

This is a question for DCCEE and the Basin States.

The SDLAM dashboard report was prepared by DCCEE in consultation with Basin States and published on the MDBA website on behalf of governments. The MDBA was not involved in its preparation.

7(h) How are the interdependencies between supply measure projects modelled, and how is this communicated to Basin communities? Are there any key projects that are more interdependent than others, and that may have a greater impact on the 2024 reconciliation?

The MDBA has been clear and consistent in communicating that the SDLAM supply measures have been modelled as a package. Each project has changing demands within its reach, which impacts on upstream and downstream reach flow patterns, resulting in flow on effects to other measures. However, the EEWD and the constraints relaxation measures have a greater interdependency than other standalone or geographically confined measures. In this way all projects are interdependent with regard to calculating the ecological outcomes within the system.

When project level estimates are published, caveats to indicate the significant uncertainty of the estimates are included.

Information request 8: SDLAM: constraints easing

8(a) What components of constraints projects contribute to risk ratings in dashboards? For example, how do difficulties in negotiating with riparian landholders contribute to the risk ratings?

As per question 7g this is a question for DCCEEW and Basin States.

8(b) Why is the South Australian constraints project rated as being at much lower risk of delivery than other constraints packages? How was this risk rating derived?

As per question 7g, this self-assessment of risk is a question for the South Australian Government.

The MDBA notes that SA has provided evidence via the SDLAM assurance process toward a likely completion before the legislated timeframe, which affirms the lower risk associated with not meeting the current SDLAM timeframes.

Information request 9: Northern Basin Toolkit

9(a) The [Northern Basin Review](#) (p. 12) mentions that studies undertaken by the MDBA justify the reduction in water recovery from 390 GL/y to 320 GL/y. Which studies are being referred to, and can these please be provided to us?

The 4-year Northern Basin Review involved substantial research into social, economic, hydrology and environmental aspects of the northern Basin. It included consultation with communities, including industries and First Nations groups. Key reports documenting the social and economic research, environmental science, hydrological modelling and the triple bottom line decision-making framework that underpinned the review are published and publicly available on the [MDBA's website](#).

9(b) In 2018, the MDBA expressed an intention to include a reconciliation process in relation to the Toolkit measures environmental outcomes (see [PC's 2018 inquiry report](#), p 144). What progress has been made on this? Has the MDBA consulted with stakeholders on the possibility of a reconciliation procedure for Toolkit projects?

The 70GL reduction to the 390GL per year water recovery target in the northern Basin as an outcome of the northern Basin review was on the basis that New South Wales and Queensland governments adopt a range of complementary toolkit measures with assistance from the Australian Government.

The intention of these measures is to contribute to achieving the desired outcomes of the Basin Plan by improving water management in the northern Basin and providing enhanced environmental outcomes that complement rather than substitute water recovery. The decision reflects that the 320GL water recovery volume in the northern Basin satisfies the *Water Act 2007* requirements of an Environmentally Sustainable Level of Take independent of toolkit implementation. Accordingly, unlike supply measures that contribute to the adjustment mechanism in the southern Basin, a formal reconciliation of SDLs is not legislated for in the northern Basin toolkit.

The MDBA remains committed to ensuring the northern Basin toolkit measures are implemented by Basin governments to maximise the environmental outcomes of water recovery and to minimise any adverse socio-economic impacts. The MDBA has been working collaboratively with the Commonwealth, New South Wales and Queensland governments on toolkit implementation and continues to actively monitor and report on progress on a regular basis (see response to 9(c)).

9(c) When are the Toolkit projects expected to be completed? Why is there little publicly available information on the project timelines?

The northern Basin toolkit measures are to be implemented by 30 June 2024.

Reporting requirements for the northern Basin toolkit are set out in the Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin, which includes the requirement to develop and periodically update an implementation work program and publish the program on the MDBA website. Information on project timelines is publicly available on the [Federation website](#), the [MDBA website](#) and the [DCCEEW website](#).

The MDBA has held a [public webinar](#) focused on this and other northern Basin activities and provides publicly available information on toolkit implementation progress through two primary mechanisms:

1. [Basin Plan Report Card](#) – northern Basin initiatives, focusing on the toolkit, is one of 5 key elements of Basin Plan implementation that are assessed and reported in the six monthly MDBA Report Card. The most recent report card was published in July 2023; and
2. [Northern Basin toolkit - status of implementation work program](#) – Monitoring and reporting on implementation progress occurs for each of the six toolkit measures and the subsidiary projects via the Northern Basin Project Committee (NBPC) comprising DCCEEW, the MDBA, CEWO, and NSW and QLD governments. The NBPC work program progress summary in implementing northern Basin toolkit measures is published on the MDBA website approximately every 6 months.

9(d) How do the projected outcomes from the Northern Basin Toolkit measures contribute to or affect outcomes in the Southern Basin?

The northern Basin toolkit measures are focused on improving water management arrangements and outcomes in the northern Basin. However, there are some indirect benefits anticipated for the southern Basin, including the following:

- Targeted water recovery – strategic water recovery can result in additional inflow into the Menindee Lakes. Under current water sharing rules and arrangements this water becomes a part of the shared southern Basin water resources.
- Coordination of flows – improved coordination of environmental flows, aims to improve connectivity along the length of the Barwon-Darling River which results in additional inflows into Menindee Lakes.
- Protection of environmental flows – enhanced system connectivity across the northern Basin as environmental water is protected and allowed to pass downstream between catchments and across borders can also result in additional inflows into the Menindee Lakes.
- Environmental works and measures projects – improved fish passage in the northern Basin will have benefits for fish population health in the southern Basin by facilitating movement.

Information request 10: Monitoring, evaluation and reporting

10(a) The MDBA 2020 evaluation committed to developing an improved Basin-wide monitoring framework. What progress has been made? How are First Nations considered in the framework (for both 2020 and 2025 evaluations)?

- Significant progress has been made by the MDBA in improving the framework that guides Basin-wide monitoring. This work has been underpinned by collaboration between governments, scientists and community groups, and Australian Government investment in the generation of new knowledge, tools and capabilities. Improvements to the framework are outlined below.
- In 2021 the MDBA published the [Monitoring Statement](#) which identifies the data sets used to meet our wide-ranging monitoring and reporting obligations and responsibilities. It includes data collected directly by the MDBA as well as those harnessed from existing sources, including partner organisations.
- The [Basin Condition Monitoring Program \(BCMP\)](#) was established in 2022 and forms part of the Australian Government's response to the independent assessment of social and economic conditions in the Murray-Darling Basin in 2020.
- The [Murray-Darling Basin Social and Economic Conditions Report 2022](#) was published as one of the early projects under the BCMP.
- The BCMP also includes projects that are dedicated to increasing the engagement, involvement and attention given to First Nations people, issues and values when monitoring and reporting on the conditions of the Murray–Darling Basin.
- A number of other initiatives that seek to improve the Basin-wide monitoring framework include:
 - Commitment to release a Sustainable Rivers Audit on the social, economic, environmental and cultural values of the Basin in 2025.
 - Planning for the 2025 Basin Plan Evaluation, including publishing the 2025 Basin Plan Evaluation Framework and Roadmap, providing direction to those with reporting obligations under Schedule 12 of the Basin Plan.
 - The 2025 Basin Plan Evaluation will assess the achievement of First Nation outcomes from the Basin Plan. The engagement process currently being developed for the Review of the Basin Plan will also be used to provide input for the Evaluation. The Evaluation will also consider other relevant and appropriate content that is available in time for the Evaluation.
 - The Murray–Darling Water and Environment Research Program, which is \$20 million commitment by the Australian Government to improve Basin Plan outcomes through targeted research.
 - Upgrading the [Murray-Darling Basin's river models](#) to help water to help water managers make timelier, more reliable and transparent water management decisions through the Integrated River Modelling Uplift which will enhance the 24 Basin river models and integrate these in a contemporary cloud-based framework.

The MDBA's commitment to develop an improved Basin-wide monitoring framework is guided by monitoring, evaluation and reporting obligations. These obligations are set out in the Basin Plan and the *Water Act 2007*, and primarily relate to:

- evaluating the Basin Plan at the Basin scale
- monitoring the condition of the Basin.

Accordingly, the MDBA's commitment is to improve its capacity to deliver its monitoring, evaluation and reporting obligations and not a commitment to develop a formalised or prescriptive Basin-wide monitoring framework that all Basin governments are expected to implement or adhere to.

It is also important to note that all Basin Governments continue to implement a broad range of monitoring programs, and that these monitoring programs are undertaken for a range of purposes, which includes – but is not limited - to reporting obligations under the Basin Plan and *Water Act 2007*.

Please refer to part B question 5 of the MDBA submission to the Productivity Commission (2023), for further information regarding interests of First Nations.

Information request 11: Water trading rules

11(a) Basin governments agreed with the Productivity Commission's 2018 recommendation on developing an assessment framework for evaluating the consistency of state trade restrictions against the Basin Plan. Has this assessment framework been developed, and, if so, can it be made available to us?

On 5 August 2021, the *Water Act 2007* (Cth) was amended to provide the Inspector-General of Water Compliance regulatory powers to ensure compliance and enforcement of water rules. The MDBA no longer has regulatory powers in relation to Basin water trading.

Please refer to part B question 3b in the MDBA submission to the Productivity Commission (2023), for further information regarding compliance roles and part C for progress against the Productivity Commissions 2018 recommendations.

Information request 12: Climate change

12(a) How is the MDBA preparing to incorporate current and future climate change impacts into a reviewed Plan?

Climate change is one of four themes of the 2026 Basin Plan Review. The MDBA will incorporate climate change impacts through work to address one of the focus questions: *how can the Basin Plan be improved to better address climate change?*

The [Roadmap to the 2026 Basin Plan Review](#) outlines out how the MDBA is preparing to incorporate current and future climate change impacts. The Basin Plan Review will be evidence- based using updated science and research and will include the:

- Research outputs from the [Murray-Darling Water and Environment Research Program, which includes research under Strategic Theme 1: Climate adaptation](#), and climate-related research projects from other Strategic and Tactical research streams
- Murray-Darling Basin Sustainable Yields project
- Sustainable River Audit – an assessment of trends and the current condition of the Basin's rivers, ecosystems, communities, and economic and Cultural values
- 2025 Basin Plan Evaluation, and
- Outlook for the Basin.

Climate change will be incorporated into the review of the Environmentally Sustainable Limit of Take. This review will draw on the outcomes of the Murray-Darling Basin Sustainable Yields project, which will generate river-system model scenarios that represent the projected impacts of climate change on river flows. The Sustainable Yields study will also produce information about critical thresholds of change for Murray-Darling Basin ecosystems.

These key pieces of information will be considered alongside other lines of inquiry such as projected climate change impacts that have an indirect effect on river flows, such as changes in bushfire frequency and severity.

This investment will provide the foundation for governments to consider options, including changes to SDLs and other measures, that could be included in the Basin Plan to strengthen its responsiveness to climate change.

The MDBA works with the CSIRO, Bureau of Meteorology, Department of Climate Change, Energy, the Environment and Water, and Basin state and territory governments to further the understanding of climate risks and their potential impacts on the Basin.

Please refer to part B question 4 of the MDBA submission to the Productivity Commission (2023), for further information regarding how the MDBA is preparing to incorporate current and future climate change impacts as part of the 2026 Basin Plan Review.

12(b) There have been criticisms regarding the use of historical climate data in determining the SDLs. How will you incorporate future climate scenarios in the reviewed Plan?

Climate science, and knowledge in the field of eco-hydrology, has improved in the decade since the Basin Plan was developed. The MDBA works closely with CSIRO and Basin states to determine the best way to use climate modelling to understand potential future impacts to water management in the Basin, including water availability. Further to this, the Ministerial Council and Basin Official Committee have endorsed the need for a consistent Basin-wide approach to hydroclimate information to inform water planning. MDBA is working with Basin jurisdictions through the Strategic Hydroclimate Working Group to develop an agreed approach to representing climate change in river system models. This agreement is expected by the end of the 2023.

Future climate scenarios will be considered as part of the 2026 Basin Plan Review. Current investment in climate change science will provide the foundation for governments to consider options, including changes to SDLs and other measures, that could be included in the Basin Plan to strengthen its responsiveness to climate change.

Other lines of evidence, such as projected climate change impacts that have an indirect impact on river flows (for example changes in bushfire frequency and severity), socio-economic analysis, and consultation with Basin communities including First Nations, will also inform decisions about any changes to SDLs.

The SDL accounting method will continue to respond to annual climate variability. Provisions within water resource plans set the methods for determining the quantity of water permitted to be taken for consumptive use for each water year, based on water availability during that period. In this way, the permitted take (also known as the annual expression of the SDL), varies in accordance with changes in Basin climate conditions.

Please refer to part B question 4 of the MDBA's submission to the Productivity Commission (2023), for further information regarding sustainable diversion limits and accounting.

Please refer to part B question 8 of the MDBA submission to the Productivity Commission (2023) for further information regarding the significant government investment in research programs to improve our science and knowledge in the Basin.

12(c) Phase 1 (2021–2023) of the [MDBA Climate Workplan 2021–26](#) focuses on new actions to adapt now and into the future, including updating science and information. It is mentioned that the MDBA will share progress annually. Are there any recent progress reports?

A progress update on the [MDBA Climate workplan 2021– 26](#) is currently being collated and will be published on the MDBA website in 2023.

12(d) WRPs must include an assessment of climate risks and identify measures to manage the impact of potential extremes. How did the WRP accreditation process ensure that WRPs adequately considered long-term climate change and different climate scenarios in setting SDLs and rules for planned environmental water? Is there a consistent climate model used across WRPs?

A WRP must be prepared having regard to current and future risks to the condition and continued availability of the water resources of the water resource plan area, including risks arising from the impacts of climate change. The WRPs must then include strategies to manage any risks assessed as medium or high. There are no requirements in the Basin Plan for Basin states to use particular climate scenarios or consistent climate models when assessing these risks, or when developing a WRP more generally, but it does require that WRPs are prepared based on the best available information. Each jurisdiction has undertaken extensive work in developing and applying high quality climate change information that is fit-for-purpose for their own water resource planning and management approaches.

Surface water SDLs are determined as per schedule 2 of the Basin Plan (not by the WRPs). Provisions within WRPs require a demonstration that methods used to determine the annual permitted take (or annual expression of the SDL) will be at or below the SDL over the historical climate period. Thus, the annual permitted take fluctuates with changes in water availability.

The Basin Plan requires that WRPs must ensure there is no net reduction to the protection of planned environmental water from the protection provided for under state water law immediately before the commencement of the Basin Plan. When assessing a WRP for accreditation against this requirement, the MDBA assesses whether the level of protection of planned environmental water is maintained under the rules in the WRP. A consideration of how long-term climate change and different climate scenarios were used by Basin states in setting rules for planned environmental water under state water law, is not a consideration when assessing a WRP for accreditation.

12(e) In the MDBA's view, how well are the Basin states factoring in climate change in developing and implementing WRPs?

A WRP must be prepared having regard to current and future risks to the condition and continued availability of the water resources of the water resource plan area, including risks arising from the impacts of climate change. The WRPs must then include strategies to manage any risks assessed as medium or high.

All WRPs have identified climate change as a potential risk or threat to the condition and continued availability of water resources. Management strategies for addressing impacts on water availability for water users, including the environment, arising from climate change vary across WRPs. The Evaluation of the Basin Plan in 2025 will examine the efficiency and effectiveness of the operation of WRPs, including their provision of a robust framework under a changing climate.

12(f) The Basin Plan objectives and outcomes have climate adaptation and ecosystem resilience components. What are the criteria, indicators and targets incorporated in the monitoring and evaluation framework of the Basin Plan to assess progress with respect to climate adaptation and resilience building?

The components of the Basin Plan objectives and outcomes for climate adaption and ecosystem resilience are centred around:

- Schedule 7 – Targets to measure progress towards objectives. These targets are designed to measure progress towards the overall environmental objectives for water dependent ecosystems.
- Schedule 8 – Criteria for identifying an environmental asset has a set of 5 criteria for identifying environmental assets.
- Schedule 9 – Criteria for identifying an ecosystem function has a set of 4 criteria for identifying ecosystem functions.

The monitoring and evaluating frameworks in the Basin Plan are outlined in:

- Schedule 11—Target values for target application zones, and
- Schedule 12—Matters for evaluation and reporting requirements.

Schedules 11 and 12 relate to the objectives and outcomes against which the effectiveness of the Basin Plan will be evaluated. The matters outlined in Schedules 11 and 12 are also matters on which the Authority, the Basin states, the Department and the Commonwealth Environment Water Holder are required to report.

Information request 13: First Nations water interests

13(a) What is the status of programs and projects the MDBA committed to in relation to Indigenous water knowledge? There is information on the Aboriginal Weather Watchers Project on the MDBA website, but the Aboriginal Partnership Action Plan also mentions:

- Social cultural survey tool
- Aboriginal Waterways assessment
- Strengthening Connections Plan
- Aboriginal Submissions database
- National cultural flows research
- Use and occupancy mapping.

What is the status of these programs? How have the results from other projects been utilised, for example, outputs from the Cultural Flows for Water Managers program?

The MDBA's Submission to the Productivity Commission Review of Basin Plan Implementation 2023 sets out the ways that First Nations people and organisations contribute to water management in the Basin. The Aboriginal Partnership Action Plan was reviewed and updated in 2022 to become the MDBA Strategy for Engagement with First Nations (2022-26). It includes the following Vision: *The MDBA works together with First Nations to achieve healthy rivers by incorporating First Nations' science, expertise, knowledge, and values in water management.*

The Strategy outlines the MDBA's objectives for the themes of Cultural flows, partnerships and collaboration, embedding action and participation, knowledge research and policy, and reconciliation.

First Nations' interests in water management is one of the four key priorities for the 2026 Basin Plan Review.

The National Cultural Flows Research Project, supported by the MDBA, was driven by First Nations people and completed in 2018. One of the key tools recommended by the research to inform Cultural flows is the Aboriginal Water Ways Assessments (AWA). The AWA tool continues to be a consistent and reliable method of water way assessment and has been used to inform First Nation Plans, which are an integral step in the Cultural flows process. They identify what a Nation would do with the water, where the water is needed and how much water would be required for their Nation.

The implementation of the National Cultural Flows Research program is a \$1.38 million program to develop cultural flow plans which is in its final stages. The MDBA has supported the implementation by funding work with the Murray Lower Darling River Indigenous Nations (MLDRIN), and previously the Northern Basin Aboriginal Nations (NBAN) to develop plans. Between 2013 and 2023, these organisations supported the development of Cultural flow plans for individual First Nations.

The MDBA's [Reconciliation Action Plan](#) (RAP) is being reviewed. It is part of the organisation's Strengthening Connections Plan which sees all parts of the organisation commit to the RAP's implementation. Key elements of the RAP include the MDBA's annual activities that mark Reconciliation Week and celebrate our Elders via NAIDOC week.

Project 4.1 of the Basin Condition Monitoring Program (BCMP) has been developed with First Nations people and organisations. This project is focused on reviewing available information from Yarns on the River 2012, and identifying policy options raised at that time, that could be considered during the 2026 Basin Plan review. This work is drawing on publicly available information as the agreements with First Nations people to use their submissions has expired. These submissions are housed in the Aboriginal Submissions Database, held by the MDBA and they are protected from inappropriate use.

The MDBA is currently developing a comprehensive Indigenous Cultural Intellectual Property policy to support collection and appropriate use, storage and sharing of First Nations people's knowledge and information. This policy is consistent with Article 31 of the United Nations Declaration on the Rights of Indigenous people (UNDRIP) including data sovereignty and Free Prior and Informed Consent (FPIC).

13(b) How have First Nations people been involved in the implementation of the Basin Plan and how does the MDBA support First Nations organisations to contribute to decision making in the Basin?

Please refer to part B questions 2 and 5 of the MDBA submission to the Productivity Commission (2023), for further information regarding First Nations engagement.

13(c) The MDBA's [annual report 2021-22](#) (p. 27) states that 6 regional community forum groups have been established to strengthen the capture and use of local knowledge. To what extent are First Nations engaged through these forums, and involved in the planning of them?

The MDBA established 6 regional community forums to hear from people about their stretch of the river and their local region and community. The forums allow people across the Basin to talk with scientists and water managers about what they are seeing in their part of the river, what is important to them, and what changes they've noticed over time. Scientists share their work with the forum members and consider how to include community input in their projects and research. The forums are managed by the MDBA, facilitated by an independent chair, and supported by the MDBA's regional offices and engagement networks. Complementing existing engagement activities, the forums are held virtually to enable accessibility for remote participants and membership is voluntary.

The call for forum membership was publicly advertised and MDBA engagement staff also utilised existing stakeholder lists to contact potential members. A diversity of membership across the Basin, and across a range of science interests, was sought including First Nations, environmental, economic, and the social sciences. A wide mix of people joined the forums, including First Nations people. Across the 6 forums more than 100 members have regularly participated. Of these, 10 are known First Nations people.

13(d) What arrangements are in place or planned to effectively engage Northern Basin Nations, given that the MDBA has ended funding arrangements with NBAN?

The MDBA considers the advice of relevant Indigenous organisations when assessing a WRP. The MDBA contracts relevant Indigenous organisations to secure this advice. Advice for the northern Basin WRPs in the past has been provided by NBAN and more recently by I2I Global. The method of gathering advice and the format of this advice is a decision for the Indigenous organisations. In most cases a workshop is held to consult with relevant First Nations representatives about the WRP submitted, with MDBA staff and state staff available to attend and support as needed. The advice is provided to the Commonwealth Minister as part of any recommendation package and is published on the MDBA website upon accreditation of the WRP.

The MDBA is currently consulting Northern Basin First Nations to identify their preferences on engaging with the MDBA in the future, including in relation to the 2026 Basin Plan Review. This work has included attending a series of gatherings across the Basin hosted by DCCEEW to inform the Aboriginal Water Entitlements programs. These learning opportunities will help to inform the MDBA's future engagement strategies.

13(e) Has [the 2017 Aboriginal Partnerships Action Plan](#) been evaluated or reviewed? How does it consider the [Priority Reforms](#) under the National Agreement on Closing the Gap?

The Aboriginal Partnership Action Plan was reviewed and updated in 2022 to become the MDBA Strategy for Engagement with First Nations (2022-26). It includes the following Vision: *The MDBA works together with First Nations to achieve healthy rivers by incorporating First Nations' science, expertise, knowledge, and values in water management.*

The Strategy outlines the MDBA's objectives for the following First Nations themes:

- Cultural flows
- partnerships and collaboration,

- embedding action and participation
- knowledge research and policy, and
- reconciliation.

The MDBA Strategy for Engagement with First Nations (2022-2026) identifies the National Agreement on Closing the Gap as a key policy that will influence the work of the MDBA. The objective of the National Agreement on Closing the Gap is to enable Aboriginal and Torres Strait Islander people and governments to work together to overcome inequality and achieve life outcomes equal to all Australians. The agreement includes an inland waters target which is currently under development.

13(f) How are First Nations engagement mechanisms evaluated, and how are lessons learnt being acted upon?

Please refer to part B question 5 of the MDBA submission to the Productivity Commission (2023), for further information regarding interests of First Nations.

13(g) How is First Nations' science and knowledge utilised and valued in Basin Plan implementation and evaluation? Do gaps in the legal frameworks governing the use of Indigenous Cultural and Intellectual Property (ICIP) inhibit partnerships with First Nations people and the sharing of Indigenous knowledges in Basin Plan implementation?

The MDBA is currently developing an Indigenous Cultural and Intellectual Property policy which will adopt a best practice approach to working with First Nations people and organisations and protecting information they willingly share.

Please refer to part B question 5 of the MDBA submission to the Productivity Commission (2023), for further information regarding interests of First Nations.

13(h) What progress has been made since 2018 to increase First Nations' participation in decision-making, planning and delivery of environmental water? Please provide examples of partnerships or case studies.

The MDBA and environmental water holders are working with First Nations people to increase their involvement in planning and management of environmental water.

The Basin-wide environmental watering strategy and the annual environmental watering priorities must have regard to First Nations values and uses.

Each year, the MDBA reports on how First Nations' values and uses were considered in the planning and delivery of water for the environment. An accompanying report of case studies: *Rivers, the Veins of our Country* tells these stories. For example:

- The First Nations Environmental Water Guidance Project in 2020-21 worked with the Northern Basin Aboriginal Nations and Murray-Lower Darling Rivers Indigenous Nations (MLDRN) to identify environmental watering objectives that describe the benefits experienced by First Nations people from the delivery of environmental water.
- The Living Murray Indigenous Partnerships Program (IPP) supports a network of Indigenous facilitators operating across The Living Murray Icon Sites to help engage with local First Nations to inform management of water for the environment and monitor the outcomes of water use.

MDBA continues to work closely with the CEWH and other partner agencies, to develop options to further improve First Nations involvement in environmental water planning, including MLDRIN.

For more information on case studies/partnerships, please refer to:

- First Nations Environmental Water Guidance Project described under ‘First Nations environmental outcomes’ in [Basin annual environmental watering priorities 2020–21](#)
- The Living Murray Indigenous Partnerships Program described in [First Nations participation in water for the environment 2021–22](#).

Please refer to part B question 5 of the MDBA submission to the Productivity Commission (2023), for further information regarding interests of First Nations.

Are the annual MDBA publications “Rivers the Veins of our Country”? and “First Nations People participation in environmental watering” useful forms of communication? How could they be improved?

Please refer to part B question 5 of the MDBA Submission to the Productivity Commission review of Basin Plan Implementation 2023.

13(i) How should the Water Act 2007 be amended to better incorporate First Nations considerations? What would such amendments seek to achieve?

Please refer to part B question 5 of the MDBA Submission to the Productivity Commission review of Basin Plan Implementation 2023.

Information request 14: Helping communities adjust

14(a) Since 2018, has the MDBA changed how it assists Basin communities to adjust to reduced water availability? Are new approaches needed, and if so, what should they look like?

The development and implementation of programs or strategies that support communities to adjust to reduced water availability is the remit of Basin governments. The MDBA’s involvement extends to monitoring and evaluation of social and economic conditions in the Basin and the impacts of the Basin Plan.

The MDBA’s monitoring of social and economic indicators and metrics provides evidence to help governments and Basin communities make informed decisions regarding current conditions and to plan for a future with reduced water availability.

The MDBA reports on numerous social and economic indicators and will update indicators on an ongoing basis to ensure information provision is timely and accessible. The reported indicators will be expanded as new datasets and monitoring results become available. The MDBA has made significant investments to expand the monitoring and reporting of conditions across a range of indicators, with 2 major projects initiated – the [Basin Condition Monitoring Program](#) in 2022 and the [Murray–Darling Water and Environment Research Program](#) in 2021, which will provide new datasets and insights on social and economic outcomes.

Information request 15: Community engagement

15(a) What actions have been taken by the MDBA since 2018 to improve engagement with Basin communities and First Nations people and incorporate feedback into decision-making? Have the regional community forum groups (referred to in 13(c)) proved effective?

Since 2018, a range of new measures have been introduced or existing ones expanded to improve engagement with Basin communities and First Nations people.

The listening tours undertaken by the MDBA Chair Sir Angus Houston and Chief Executive Andrew McConville (and before him Phillip Glyde) have provided valuable in-person and on-site engagement with a wide range of people and interests in different parts of the Basin. This form of engagement provides the opportunity for people to share their stories, ask questions and voice their concerns at the highest level of the organisation. The tours also include a representative from the Department of Climate Change, Energy, the Environment and Water (DCCEEW), the Commonwealth Environmental Water Office and state water agencies to provide communities with an opportunity to engage with a range of decision-makers at one time. The MDBA receives strong positive feedback from members of the community and organisations that are involved in these engagement activities.

To date there have been 14 tours since 2020 with more planned for the coming year. Communities visited have included the Condamine-Balonne in Queensland, the Namoi and Gwydir valleys, the Lachlan-Macquarie-Castlereagh, the Riverina, Mid-Murray, Upper Murray and Lower Darling (Baaka) in NSW, the Goulburn-Murray and Sunraysia in Victoria, and the Riverland, lower Murray and Lower Lakes in South Australia.

Each year, the MDBA hosts three briefings for Peak Groups across the Murray–Darling Basin on behalf of all Commonwealth water agencies. These briefings are an opportunity to share updates, seek information from and test ideas with almost 40 groups representing Basin-scale stakeholders, including First Nations. The forums also provide a mechanism for peak representatives to share what is important to them and ask questions about water management and reform.

A significant innovation has been the MDBA’s annual River reflections conference, which has been hosted in a regional centre since 2021. The conference brings together community members, First Nations people, industry, academics, and representatives from all levels of government to share their knowledge and innovations, and to exchange success stories, challenges and lessons learned in water management. Conference programs are designed in consultation with local and regional organisations, providing stakeholders with an opportunity to shape the conversation they wish to share about their region. The conference provides a networking opportunity for people across the Basin and is also live streamed to a wider audience. To date, the conference has been held in Griffith, Mildura, and Narrabri.

The 6 [regional community forums](#) have regularly attracted more than 100 participants. The forums provide a safe, supportive space for participants to build their knowledge about the science of their region and the Basin, see the role of science in decision making, and contribute to the MDBA’s science and monitoring program. The community forums provide direct input and local perspectives into initiatives such as the Basin Condition Monitoring Program and Murray-Darling Water for the Environment Research Program to inform and shape these science and knowledge projects. Forum participants were surveyed and 93% of respondents felt the meetings were worthwhile, with 90% believing that the meeting processes allowed them to contribute their views effectively. Almost 60% of

respondents also clearly understood how their input would be used by the MDBA in future science and research programs. The Basin Community Committee (BCC) has focused on advising the Authority, and Basin Governments through the Ministerial Council, and the Basin Officials Committee, with a key focus on improving transparency in decision-making. The BCC Transparency Principles and advice to Ministerial Council has been published alongside their communiqués on the [MDBA website](#).

The expanded Regional Engagement Officer program, a joint initiative with DCCEEW, provides two-way information sharing opportunities between government, the MDBA and Basin communities.

For specific programs of work the MDBA has taken a tailored approach to engagement. For example, engagement on the Barmah-Millewa Feasibility Study (BMFS) involved dedicated workshops, meetings and online forums with groups representing First Nations, environment, local business, community interests, irrigated farming, tourism, recreational fishing and local government, which enables feedback to be considered in the decision-making processes. The values and the concerns of First Nations and the community influenced the way the BMFS was conducted and continue to influence the future program of work in this environmentally and Culturally significant reach of the River Murray.

The MDBA has a dedicated engagement team which plays a key role in identifying and connecting with stakeholders across the Basin to facilitate the effective flow of feedback and information for consideration in decision-making processes. Using in-person and online engagement and consultation channels in a variety of formats, the MDBA is focused on deepening its knowledge and understanding of and connection with First Nations and Basin communities. A dedicated First Nations Relationship team works alongside our engagement team, with a focus on engagement with First Nations peoples and groups.

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

The MDBA is committed to continuing its work with all levels of government in a coordinated and cohesive way to maintain transparency and community confidence. This includes continuing to:

- be open, clear and genuine about the intent of engagement activities through adoption of IAP2 best practices. In this way, community will continue to have greater clarity on their expectations around their participation.
- provide insights into community voices gathered from previous meetings by way of ‘This is what we heard’ style communications and closing the feedback loop to advise how their input affected decisions.
- capture and report stakeholder feedback through software platforms such as Dynamics Customer Relationship Management database.
- support continuity to reduce the negative impact of personnel changes, including through a CRM reporting system, and proactive introductions to stakeholders.
- encourage broad community participation in conversations about water and natural resource management. This will lead to more people sharing their views, deepening their understanding of Basin issues and create a greater community support network.

Further Reading

[2017 Basin Plan Evaluation](#)

[2020 Basin Plan Evaluation](#)

[2025 Basin Plan Evaluation Framework and Roadmap](#)

[5 yearly reviews of the Environmental Watering Plan \(2020\)](#)

[5 yearly reviews of the water quality and salinity plan target \(2020\)](#)

[Annual reports on the effectiveness of the Basin Plan \(the Basin Plan Annual Report since 2013-2014\)](#)

[Basin Condition Monitoring Program](#)

[Basin Plan Report Cards](#)

[Bilateral agreements with Basin states and territory governments](#)

[Collaboration with Basin Communities](#)

Environmental Watering examples:

- [The Northern Connectivity Event in 2018](#)
- [The Northern Fish Flow in 2019](#)
- [The Northern Refresh in 2022/23](#)
- [The Northern Waterhole Top-Up in 2020-2021](#)

[Independent assessment of social and economic conditions in the Basin](#)

[Monitoring, Evaluation and Reporting Capability Assessment \(2019\)](#)

[Monitoring statement](#)

[Murray-Darling Water and Environment Research Program](#)

[Northern Basin Projects](#)

[Northern Basin Toolkit Progress](#)

[One Basin Cooperative Research Centre](#)

[Review of water recovery targets in the Northern Basin](#)

[SDL Adjustment Mechanism annual assurance reports](#)

[Sustainable Diversion Limit Adjustment Mechanism Reconciliation Framework](#)

[Water resource plans: tools for Basin state governments](#)

Office locations – *First Nations Country*

Adelaide – *Kurna Country*

Canberra – *Ngunnawal Country*

Goondiwindi – *Bigambul Country*


Griffith – *Wiradjuri Country*

Mildura – *Latji Latji Country*

Murray Bridge – *Ngarrindjeri Country*

Wodonga – *Dhudhuroa Country*

 [mdba.gov.au](https://www.mdba.gov.au)

 1800 630 114

 engagement@mdba.gov.au