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Productivity Commission
Murray-Darling Basin Plan Ten-year assessment

E: [Make a submission - Murray-Darling Basin Plan: Ten-year assessment - Productivity Commission \(pc.gov.au\)](https://www.pc.gov.au/murray-darling-basin-plan/ten-year-assessment)

Dear Commissioners

Key points

- The Murray-Darling Basin Plan (Basin Plan) is at a critical junction and the Productivity Commission (PC) has a unique opportunity to make recommendations that will assist Governments finalise the Basin Plan in a way which minimises harm to communities and is an effective use of taxpayers' funds.
- The PC has an important opportunity to highlight the cost of further water recovery and to contrast this cost with the marginal benefits of increasing the Commonwealth Environmental Water Holder's held environmental water portfolio.
- Coleambally Irrigation Co-operative Limited's (CICL) priority is to find a pathway to ensure at least 605GL of "off set" projects are funded and implemented, therefore avoiding the need for reconciliation and further buyback from the consumptive pool.
- CICL supports the extension of deadlines for sound projects, and the opportunity for new or improved projects to be included in the Sustainable Diversion Limit Adjustment Mechanism.
- The social and economic neutrality test for any 450GL projects should be retained and apply to both where the water entitlement is from and where the project will be delivered.
- There should be increased flexibility in use of the water for the environment special account, with funding available for projects that deliver environmental outcomes but don't necessarily result in held water entitlements.
- CICL supports the development of new delivery models at "arm's length" from government (e.g., a concept such as Water for Rivers), with associated governance to improve the efficiency and efficacy of the significant government investment in both supply and efficiency projects.
- Including prescriptive requirements in the Basin Plan legislation for critical human needs should be avoided.
- CICL's view is that there is no case for immediate changes to the Basin Plan's approach to responding to climate change.
- The Murray-Darling Basin Authority and basin governments need to demonstrate greater leadership to find solutions to these complex issues.

Introduction

CICL welcomes the opportunity to provide input into the PC's ten-year assessment of the Basin Plan. CICL also appreciated the opportunity to meet with Associate Commissioner Chris Guest and some PC staff recently in Griffith.

CICL is a member of both NSWIC and National Irrigators' Council and is aware of the extensive ideas and recommendations made by these organisations' detailed submissions to the PC, in particular the analysis completed by NSWIC.

This submission details CICL's views on the immediate opportunities to highlight the success of the Basin Plan but also to also identify a pathway forward where implementation is failing.

An important priority for the PC should be providing evidence of the potential costs of finalisation of the Basin Plan arising from a reduction in the volume in the consumptive pool which could be of the order of 760GL.

Basin communities and irrigated agriculture are quite different now compared to irrigated agriculture in 2007/08 and it is CICL's view that the marginal cost of further water recovery is high, and this cost must be compared to the marginal benefit of increasing the Commonwealth Environmental Water Holder's held environmental water portfolio. CICL believes the PC and this review is an important opportunity to highlight this issue.

About Coleambally Irrigation Co-operative Limited

CICL is a gravity, off river, irrigation supply scheme in the Murrumbidgee Valley. We supply irrigation and drainage services to just under 500 farms owned by nearly 300 farm businesses who are mainly "mum and dad" farmers.

Our irrigation service is automated, and it is world's best practice for an open, earthen channel system. Cotton, corn and rice dominate our summer irrigation and in winter our farmers grow a wide range of irrigated annual winter crops. We deliver environmental water to sites within our system in partnership with the NSW Government and the Commonwealth Environmental Water Holder. We also deliver environmental water to the Yanco Creek for WaterNSW.

We advocate in the interests of CICL and our members on issues affecting our access to water for irrigated agriculture, which underpins our community.

The majority of CICL's water access licence volume is general security, which CICL has a contractual responsibility to supply to its members. CICL also holds a conveyance water access licence which underpins CICL's capacity to supply water to its members. Since 2008, the volume on CICL's general security licence has declined by 28 percent from a combination of both government purchases/investment for environmental use and the water market.

CICL has significantly changed its business model in response to the Basin Plan and Water Market Rules (*Cth*) 2010 to secure its business viability and provide certainty to its members, including water charging certainty. These investments are underpinned by the Water Sharing Plan (WSP) for the Regulated Murrumbidgee River Water Source, a key document supporting the implementation of the Murrumbidgee Water Resource Plan (WRP).

Our members continue to adjust their farm businesses in response to changed policy settings since 2008 and variable water availability. However, CICL is deeply concerned the current failure of Basin Plan implementation will result in a further significant reduction in the consumptive pool causing painful structural change pressures on CICL and its irrigation dependent community. Further recovery to achieve the 450GL as held water entitlements, plus the shortfall in the Sustainable Diversion Limit Adjustment Mechanism, could result in an additional 760GL being removed from the consumptive pool. This is more than twice CICL's irrigators' annual water use in a reasonable water year and more than South Australia's annual irrigation water use. The impact of a reduction of this scale in the

consumptive pool in the inter-connected southern Basin will be material, with negative consequences for CICL, our community and the resilience of the food and fibre producing sector.

This review is an opportunity for the PC to provide an independent assessment of the value of further water recovery from the consumptive pool for the environment compared to investment in alternative actions.

- This assessment needs to be in the context of what the additionally held environmental water deliver will deliver, given operational constraints.
- This assessment needs to consider the potential impacts of a reduction in the consumptive pool on agricultural production, irrigation infrastructure operators (IIOs) and communities, as well as the associated pressure on the river system.
- This assessment must analyse what changes can be made to implementation and delivery to ensure the Basin Plan genuinely delivers on social, economic, and environmental outcomes at the same time as improving participation of Aboriginal People.

Productivity Commission Basin Plan Implementation Review 2023

1. What needs to change to ensure water recovery targets are met and that supply and efficiency measures are delivered? What lessons can be learnt from past experiences?

Supply projects

The risk of supply project under-delivery has been known for many years and highlighted in the PC's last review. Government action to address this risk has been inadequate, with no obvious leadership shown by either the MDBA or governments¹ to find solutions or alternative approaches, including delivery mechanisms.

A key lesson learnt from implementation of the Basin Plan to date is the importance of building support within communities for change, having both a "bottom up" and "top down" approach to identifying opportunities, developing projects, and building support.

Many of the SDLAM projects proposed by government had no community ownership and were never built in partnership with communities or with those impacted. It should be no surprise that several large, complex projects, such as constraints relaxation projects and Menindee Lakes reconfiguration, have no prospect of being achieved in the timeframes set, if at all, due to the lack of community consultation and resultant ownership.

An example of a project that has elements of supply measure and efficiency is "optimisation" of the Murrumbidgee. This is a project CICL and Murrumbidgee Irrigation have been working on together and are seeking funding for a feasibility study to consider "optimisation" in the Murrumbidgee. As this project has supply and efficiency elements, interestingly it does not fit into either funding "bucket", hence despite the potential benefits, is not being considered. This project provides an opportunity to learn from the irrigation infrastructure operators' experiences with modernising their networks and introducing control systems. It offers innovative ways to deliver outcomes for the environment and consumptive water users. There must be other examples that could be considered if we start to think about what alternative solutions might be. As previously mentioned, the current funding model and

¹ Inclusive of both the state and Commonwealth governments.

approach doesn't fit where a project has elements of supply measures and efficiency measures. The approach to supply projects also excluded projects being brought forward by the private sector. CICL's opinion is that the PC recommendations should allow for such projects to be included and funded.

An improved governance model is required and funding to the states for projects that do not result in an implementable project is a major issue, with communities like ours the collateral damage from the failure of NSW to deliver key SDLAM projects.

CICL supports recommendations from this review that:

- Extend the timeframes for implementation of SDLAM projects where those projects are assessed as sound projects, which will deliver environmental outcomes with less water and the projects are generally supported in the communities impacted.
- Allow new or improved projects to be included in the SDLAM, where those projects are advocated by impacted communities and are projects that will deliver improved environmental outcomes.
- Support funding models for projects that have elements of both supply and efficiency projects.
- Propose alternative and new delivery arrangements which introduce commercial arrangements for project delivery, including requiring program administrators to have relevant technical and project management expertise.
- Results in delivery arrangements that ensure accountability for project deliverables.
- Requires the MDBA to develop advice to government on alternative pathways to allow the SDLAM to achieve its anticipated benefits and therefore avoid the need for the MDBA to undertake reconciliation.

Efficiency projects

In relation to the 450GL of efficiency, CICL believes there are opportunities to change the approach to the 450GL, with the funding in the "Water for the Environment Special Account" supporting the investment in environmental initiatives, in particular complementary measures.

The recent call for project ideas by the Commonwealth is a positive initiative and likely to result in new and innovative ways for achieving Basin Plan outcomes. Bringing the results from this work into the PC recommendations would be a positive change.

CICL recommends to the PC the analysis completed by NSWIC of further recovery of 450GL from the consumptive pool. This work demonstrates the potential scale of recovery of this volume from the southern Basin and its impact on production and Basin communities.² CICL does not believe an additional 450GL can be recovered from the consumptive pool consistent with a neutral or improved social and economic outcome based on the criteria agreed by the Murray-Darling Basin Ministerial Council in 2018.

CICL strongly encourages the PC to include a transparent assessment of the cost to taxpayers and the implementation challenges that will confront achievement of the 450GL of water to deliver enhanced environmental outcomes.

CICL supports recommendations from this review that:

- Take a new approach to delivery of the 450GL of efficiency projects so that projects can be funded that result in environmental outcomes without the need for additional "held environmental water".
- Allow funding in the Water for the Environment Special Account to be invested in complementary measures.

² [2022-08-01-450-Report-FINAL.pdf \(nswic.org.au\)](https://www.nswic.org.au/2022-08-01-450-Report-FINAL.pdf)

- Limit further recovery beyond the 62GL required to achieve 605GL of off sets until the future of constraints relaxation is known.
- Where projects involve the transfer of water entitlements to the Commonwealth, the contract should be directly between the proponent whose water entitlements are being transferred and the funding organisation.³
- Retain the social and economic neutrality test for all actions involving the 450GL, including the region where any water entitlements are accessed from, as well as where the project will be implemented.

2. Are the current arrangements for implementing the Murray-Darling Basin Plan operating effectively? How could the arrangements be improved? The Commission is particularly interested in the effectiveness of the arrangements for:

a. developing, accrediting, and reporting on water resource plans

CICL participated in the stakeholder advisory panel (SAP) established by NSW when they prepared the Murrumbidgee WRP. The work of this panel ended in 2019. Four years later the Murrumbidgee plan is still not accredited. The Department staff said during the SAP process *"we are working together with the MDBA so there is a seamless process to accreditation of the WRPs"*.

CICL is asking the question - what has gone wrong? The WRPs were intended to be modelled on the NSW Water Management Act and WSP approach. What are the causes for the failure of NSW WRPs to be accredited? From our perspective there is no transparency in the process between the MDBA and the NSW government. CICL understands there have been divergent views about planned environmental water, and differences between each state's water laws are one of the reasons for delays in the accreditation of the NSW surface water plans. However, in our opinion, these cannot be the only reasons.

Clearly the arrangements are not operating effectively for accreditation of WRPs and need to change. The fact the majority of NSW WRP are not accredited causes reputational damage to NSW and its irrigators.

The establishment of sustainable diversion limits (SDL) for both surface and groundwater catchments is a key objective of the Basin Plan. Since the SDL commenced in 2019, the register of take reports produced by the MDBA demonstrate most SDL units are compliant with the SDL.

Sustainable Diversion Limits are being achieved.

Attention is often drawn to the fact the majority of NSW WRPs are still not accredited, however, NSW and the MDBA have a bilateral agreement with the MDBA which is a commitment to ensuring compliance with SDLs.

³ Current arrangements for water efficiency projects involve both state and Commonwealth administration.

Whilst SDL accounting is in its formative years, data shows, except for the Barwon-Darling SDL⁴, water take is within the SDL compliance, with several SDL units having use less than the annual permitted take.^{5,6}

CICL agrees it is important the NSW WRPs are completed and accredited. However, it is important to acknowledge compliance with the SDLs and the framework in place to address non-compliance through the bilateral agreement between the NSW government and the Murray-Darling Basin Authority.

There is an opportunity to improve the timeliness of release of the Register of Take and the Annual Compliance Report. The results from the 2021/22 water year have not been released and the 2023/24 water year is underway. More timely production of these reports is required.

b. water quality

In the Murrumbidgee, management of “black water” events is the primary water quality issue addressed by water management. The significant volumes of e-water, operational water and monitoring have assisted both operators and e-water holders minimise these risks.

There are other factors such as blue green algae and turbidity caused by invasive species. Addressing these issues requires attention to catchment management and control of invasive species, actions not contemplated by the Basin Plan.

c. critical human water needs

The NSW Water Management Act, WSP and Critical Incident Guide provide a sound framework to ensuring the supply of water for critical human water needs in the Murrumbidgee. In addition, the Snowy Water Licence was changed in 2011 to include drought accounts. The Murrumbidgee River Drought Account has a maximum volume of 150GL. This account can be called on when annual allocations to regulated river high security entitlements are less than 50 percent. The Murrumbidgee drought account is full and was not required during the most recent drought in the Murrumbidgee.

Including prescriptive requirements in the Basin Plan legislation for critical human needs should be avoided. This is not to diminish the importance of water for critical human needs. These issues should be addressed catchment-by-catchment and entrenched in state planning frameworks, and include utilising surface water, groundwater, and recycling opportunities.

d. environmental water planning and management.

CICL has worked with both Commonwealth Environmental Water Holder and the NSW Department to deliver environmental water to sites in our area of operations. We also deliver e-water to the Yanco Creek through our infrastructure based on order from WaterNSW.

⁴ NSW has claimed a reasonable excuse for this exceedance, [New South Wales submission to Murray-Darling Basin annual water take report 2019-20 \(mdba.gov.au\)](#)

⁵ [Annual Water Take Report 2019-20 \(mdba.gov.au\)](#)

⁶ [Sustainable Diversion Limit compliance statement for 2020-2021 \(igwc.gov.au\)](#)

CICL has experienced positive engagement with both the planning and implementation of local environmental watering initiatives.

3. Have the governance and institutional arrangements for the Plan – including the arrangements for compliance and monitoring, evaluation, and reporting – proved effective? What changes would you recommend?

As the challenges facing the Basin Plan implementation are identified, it seems the solution is to create more bureaucracy responsible for compliance and monitoring. This is confusing for stakeholders and has not necessarily led to better outcomes or improved consistency between states.

The MDBA evaluation of the Basin Plan in 2020 produced data and reports but did not provide the analysis needed to deliver improved decision making. As noted earlier in this submission, our observation is the MDBA has not taken a leadership role in identifying solutions or changes needed to Basin Plan implementation.

The MDBA need to assert its role as an independent authority. Words like “best available science” and “evidence-based decision making”, are often stated without the necessary caveats around diversity of views between scientists, potential errors and or the heavy reliance on modelling.

It is important the evidence base captures the social and economic aspects of the Basin Plan implementation and is inclusive from the start of the water recovery programs prior to when the Basin Plan was made in 2012.

The MDBA seems to be more focussed now on the Basin Plan review rather than identifying ways to improve implementation of the current Basin Plan based on the monitoring and evaluation completed to date.

The opportunities for integrated land and water management in Basin Plan implementation seem to be non-existent, despite it being acknowledged there are other options to improve environmental outcomes. For example:

“We argue that while recovering water will provide good outcomes, as a sole intervention, it is not enough to deliver the desired environmental benefits of the reform given the significantly altered state of the catchment. Here, we present 10 measures that could be used to complement planned water recovery actions. These “complementary measures” integrate recovery actions, which when strategically combined with water delivery would significantly enhance water reform efforts to generate environmental outcomes in a highly modified system” Baumgartner et al 2019⁷.

CICL believes the MDBA could take a more active role in identifying solutions and alternatives for finalising the Basin Plan, including drawing attention to issues such as the significant impact of invasive species, like carp, on water ways.

4. How well is the Plan responding to a changing climate? How should this be improved?

⁷ [Ten complementary measures to assist with environmental watering programs in the Murray–Darling river system, Australia - Baumgartner - 2020 - River Research and Applications - Wiley Online Library](#)

CICL is concerned climate change is being used by some advocates to justify further water recovery. It is important to acknowledge Murray-Darling Basin catchments experience significant climate variability and variable water supplies, with both periods of low inflows and record inflows.

In the Murrumbidgee in the last five years, allocations to general security water users have included the lowest on record and three years of 100 percent. Currently water is being released from the two Murrumbidgee storages for "airspace" management.

CICL believes the state water allocation processes and hierarchy for access to water, which is defined in the Water Management Act (NSW) 2000, provide a sound framework for responding to variable water supplies.

Further, the WRPs include the Critical Incident Response Guide which provides a framework to guide decision makers when faced with water scarcity.

The Long-Term Environmental Watering Plans, which are non-statutory plans within the WRP, also provide guidance to support environmental water planning and delivery to assist in building environmental resilience in the face of variable water supplies.

In the Murrumbidgee catchment between 2018/19 – 2019/20, the inflow sequence was the driest on record. In this period the WSP remained in place and the river was operated under "normal" conditions. CICL believes this is testament to the learnings from the millennium drought and the planning frameworks in place.

CICL's view is that there is no case for immediate changes to the Basin Plan's approach to responding to climate change. It is also important consideration of change response to climate change, driven by the Basin Plan, is cognisant of the approach in the NSW Regional Water Strategies.

5. How well is the Plan addressing the interests of Aboriginal people?

CICL believes this question is best answered by Aboriginal people.

6. How well has community consultation and engagement been conducted? How can this be improved?

Community engagement is fragmented between state organisations and Commonwealth organisations. Most community consultation involves presentations, an opportunity for feedback, a "What We Heard Report" and maybe some changes which reflect feedback provided by impacted stakeholders.

What government organisations are doing is trying to consult, they are not engaging, and stakeholders are not part of the decision-making process. Our opinion is that it is a "tick the box" exercise.

What communities are seeking is to be participants in the decision making. This option is not available. Even the WRP stakeholder advisory process had an interagency panel, which excluded community stakeholders, where decisions were caucused by government.

CICL observes directly affected stakeholders no longer participate or engage in the conversation. Most farmers are working hard within their farm businesses and juggling multiple layers of decision-making, including climate variability, commodity prices, geopolitical impacts on prices of input, and products.

The best way to improve engagement is to make the process less threatening and provide genuine opportunities for input into the decision making. A model like the Land and Water Management Plan used in NSW is an example of success. How such a model can be extended across the Basin Plan implementation is the opportunity. NSWIC recently published a Journal Article advocating a participatory approach to decision making as current best practice.⁸

7. What lessons should be learned from programs aimed at helping communities adjust to the Plan?

CICL has no direct involvement in any of these programs.

The Basin Plan reduces the volume in the consumptive pool without addressing the irrigation footprint. In fact, policy settings encourage “green field” irrigation developments or enable increased water use (on-farm irrigation efficiency) which combine to increase the pressure on access to remaining volumes in the consumptive pool, causing increased annual allocation and water entitlement prices. The failure of the SDLAM projects and the potential for recovery of the 450GL from the consumptive pool will exacerbate the issues faced by communities and organisations such as IIOs.

The Basin Plan and associated instruments, such as the Water Market Rules (*Cth*) 2009 and Water Charge Rules (*Cth*) 2010, act to diminish the IIO’s capacity to adjust to the Basin Plan and a reduction in the consumptive pool, with the responsibility for maintaining the shared infrastructure left with remaining irrigators.

CICL would support recommendations from this review that:

- Identify the risks associated with further water recovery and the interaction between water recovery and other instruments established under the Water Act (*Cth*) 2007.
- Draw attention to the policy settings that ignore the impacts on the riparian zone and river operations arising from changing irrigation demand patterns.
- Government does not proceed with buybacks where impacts on communities will cause severe adjustment pressure.

8. Does the implementation of the Plan reflect a commitment to the best available scientific knowledge? How well is this knowledge communicated? What improvements should be made?

The following are all examples of where the Basin Plan is not using the best available scientific knowledge:

- Implementation has not adapted to what has been learnt since 2012. The solutions, such as some of the SDLAM projects, are no longer viable options and alternatives are needed.
- The assumptions about delivery of the 450GL are not correct and therefore change is required.
- Market participants have responded to the opportunities presented by the water market, and this is driving investment which is exposed to the impacts of climate change (permanent plantings) and placing delivery pressures on river operations, with impacts on the riparian zone. Governments have not implemented extraction rights in the NSW regulated systems as a policy tool to manage congestion and delivery efficiency issues.
- There has been limited communication on what has been learnt from environmental watering and what are the factors that could improve the efficacy of environmental watering, including the role of complementary measures versus more water.
- There has been limited communication on what has been learnt from the floods and droughts.

⁸ <https://www.tandfonline.com/doi/abs/10.1080/13241583.2022.2097365>

- There has been limited communication on what has been learnt from the conflicting policy settings, how this could be improved, and where the policy gaps are.
- The MDBA is moving forward with the review, assuming the Basin Plan is complete, and it is not.

9. Are there any other issues with Plan implementation that you wish to raise?

CICL believes it is important this review distinguishes between changes that are needed to improve the implementation of the Basin Plan in the immediate future and changes or improvements which more logically fit in the Basin Plan review.

CICL also believes there is merit in the PC providing government with a set of staged recommendations that will support the government's commitment to implement the Basin Plan.

Conclusion

CICL recognises the issues confronting Basin Plan implementation are complex and involve difficult negotiations between governments and stakeholders. Navigating solutions in the regulatory environment is far from simple. However, this reform and the consequences of the different choices available to government are crucial and material. The PC has a unique opportunity to provide sound advice to government on a way forward. CICL encourages the PC to focus their attention on key changes that will assist implementation at this critical juncture.

If you require further information, please contact Jenny McLeod, Policy and Communication Manager,

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