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Murray-Darling Basin Plan: Implementation Review 2023
Productivity Commission
GPO Box 1428
CANBERRA ACT 2601

Online submission

About SmartRivers

SmartRivers is located in the Lower Balonne region of the Murray-Darling Basin. We are committed to maintaining the health of the river system and have worked with government(s), scientists and environmentalists for a long period of time to understand the river system function. A key objective of SmartRivers is to collaborate on policy, water planning, flow management arrangements and best practice to ensure healthy working rivers for generations to come.

About the Toolkit

Over a four (4) year period a highly respected group of people, with varying perspectives on basin reform from throughout the Basin, worked diligently as the Northern Basin Advisory Committee (NBAC) to find positive solutions to a very difficult Northern Basin Review. NBAC were unanimous in their support for the Northern-Basin specific 'Toolkit Measures' developed and published in the report[1] in 2016 by the Murray-Darling Basin Authority. Refer to Appendix 1 for information on the Toolkit.

About the Lower Balonne Round Table

SmartRivers was instrumental in developing the Lower Balonne Round Table forum in 2019. The Round Table is held in the Lower Balonne twice per annum and is a structured collaborative approach to addressing local water-related issues in consultation with all related departments. A key current objective is stakeholder collaboration in relation to progressing the Toolkit measures[2]**.** Refer to Appendix 2 for information on the Toolkit project advocacy and development. Local stakeholders, the Commonwealth, local and state governments, water agencies and other interested parties participate in the Round Table. This is a landmark approach enabling transparency and a collaborative approach to agency interactions with community participation.

[1] https://www.mdba.gov.au/publications-and-data/publications/northern-basin-advisory-committee-report-northern-basin-review
[2] https://www.mdba.gov.au/publications-and-data/publications/northern-basin-toolkit-progress

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Productivity Commission Call for Submission Response

Following is our submission on actions and improvement areas in preparation for the 2026 Basin Plan Review.

1. Northern Basin Toolkit Projects

We continue to advocate for improved water management practices and passage of flow through the implementation of the Toolkit measures. Refer to Appendix 1 for a summary of the Toolkit project measures. These measures took more than four (4) years to develop and were co-designed with local input (Northern Basin Advisory Committee[3]).

1.1 Bifurcation Weirs Project QFFWE_2

The main driver of this project is to better manage low flows particularly end of system flows and the middle sections of the floodplain. This project can enable better management of the flows down the centre reaches of the river system. Additionally, there is the possibility of future watery recovery and delivery options thus this project is an important tool in managing the impacts of a drier climate.

FEEDBACK / ACTIONS

- Prioritise and progress the QFFWE_2 bifurcations project (refer to Appendix 3).
- Ensure the funded project scope aligns to the extensive Lower Balonne stakeholder engagement that was undertaken (through workshops and meetings with the lead consultant of Southern Queensland Landscapes) to develop the pre-feasibility report designed to underpin the business case.
- Provide an update on whether the Toolkit infrastructure completion timelines will be extended. The Toolkit projects were to have commenced last February 2021 and were due to be completed by June 2024.

1.2 Event Based Mechanisms (EBMs)

Since tabling the progression of EBMs at the first Round Table in 2019, we acknowledge the effort and commitment of the Commonwealth (particularly the Commonwealth Environmental Water Office (CEWO) team), the Queensland Government and the Murray-Darling Basin Authority to develop a suite of measures including,

[3] https://www.mdba.gov.au/publications-and-data/publications/northern-basin-advisory-committee-report-northern-basin-review

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1. *Purchase and release.* This measure [of already captured water from private storage] was utilised in the 2023 CEWO Grant.
2. *Private storages to store CEWO water for future release*. In 2023, it was noted that the Commonwealth will explore options to store Commonwealth environmental water for later release over the next 12 months as another EBM option.
3. *Cease To Pump Option.* This measure was utilised for the Narran Bird Breeding Project in the pilot grant in 2020 and again in 2021.

Regarding the remaining event based mechanism,

4. *Setup an enduring framework for Temporary Water Purchase.* The current seasonal assignment process used by the Queensland Government applies to a multi-year accounting framework. However, in the Lower Balonne most water users are not managed under this multi-year framework, rather the accounting framework in the Lower Balonne is an Instantaneous Volumetric Limit (IVL) framework. Thus, this option is currently not able to be explored.

FEEDBACK / ACTIONS

- We acknowledge the efforts of government(s) to work together to ensure that the seasonal assignment process is applicable in the Lower Balonne and we continue to advocate for this work to be progressed in a more timely manner to enable this EBM to be utilised as an option.

1.3 Review of the Toolkit Projects against Original Intent

The roll-out period to develop, fund and execute the Toolkit projects is very delayed (refer to Appendix 2). It is considered that the original intent of the Toolkit measures has changed over the period between 2016 and 2023. Therefore, our feedback is to undertake a focussed review as follows.

FEEDBACK / ACTIONS

- Review the original Toolkit projects intent against the current business case proposals including the early co-designed scope of QFFWE_2, the inclusions of fish ladders, and other projects that are not relevant nor designed to be rolled out in the Lower Balonne.
- Check that the proposed business cases represent value for money and are realistically designed to suit the unique conditions in the Lower Balonne.
- Ensure that the Toolkit projects are not only feasible but the best options to achieve the goals and intent as per the original Toolkit measures especially when value for money needs to be a core objective.

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2. Border River's Commission Infrastructure Upgrade to the Bifurcation Weirs

We acknowledge the support of the Dumaresq Border Rivers Commission (BRC) in our Round Table forums and the commitment to undertake a review of the Lower Balonne bifurcations against the original intent and the decision to undertake upgrades according to this review.

FEEDBACK / ACTIONS

- Timely commencement of these works and notification of the expected completion date.
- Whilst the Toolkit bifurcations project, QFFWE_2, is a separate project to the BRC upgrades there is merit in these two projects tracking concurrently [should the QFFWE_2 be funded] to ensure value for money and efficiencies in meeting best project(s) outcomes. Thus, advice on whether the Toolkit project will be funded is important to the planned BRC infrastructure upgrades.

3. Modelling and Monitoring

Background – A Plea For Evidence Backed By Science

Over 20 years ago, at a time when there were ill-founded claims on the health of the Lower Balonne river system, SmartRivers strongly advocated for 'evidence backed by science' to be the basis for water resource management. In June 2002, the Beattie Government committed to review the science underpinning water resource management in the Lower Balonne. The review was headed by freshwater ecologist Professor Peter Cullen. This became known as the Cullen Review.

Between 2003 - 2008 SmartRivers also commissioned a number of independent ecological monitoring study projects that were peer reviewed at several stages by eminent scientists, including Dr Richard Marchant. This science also formed part of the Cullen review. Since this time there has been limited investment in on-ground river studies and monitoring in the Lower Balonne.

3.1 Ecological Monitoring and Model Testing and Validation

In recent years, hydrological metrics have been the sole line of evidence used to inform the Basin Plan review and planning. This results in critical decision-making shortfalls putting livelihoods and communities at stake.

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FEEDBACK / ACTIONS

- Increase investment in on-ground river monitoring projects in the Lower Balonne region.
- Develop a Lower Balonne long-term ecological monitoring and evaluation strategy with stakeholder input.
- Commit to developing a long-term monitoring and evaluation framework using both hydrological and ecological data and metrics.
- Roll-out short-term ecological monitoring.
- Review model outputs against observed actuals.
- Ensure that hydrological testing and validation of hydrological assumptions is undertaken with Lower Balonne stakeholders.

4. Water Recovery and Community Support

Our agriculturally reliant communities continue to be vulnerable due to water recovery reform impacts. We request a staged community led approach to co-design economic stimulus initiatives in line with recommendations in the 'Sefton Report'[4].

FEEDBACK / ACTIONS

- We propose a two (2) stage process to co-design economic stimulus initiatives for our communities.
- Stage 1 – This stage would require up to $1M of funding for the facilitation of community engagement to develop strategies and delivery mechanisms. We propose this process is led by Robbie Sefton and Michelle Ramsay, based on their expertise and previous basin community consultation(s).[4]
- Stage 2 – Fund a Lower Balonne Socio-economic Recovery Investment Package of $14M based on the 14GL water recovery target under the 'Strategic water purchasing tender - Bridging the Gap 2023'.

[4] Sefton, R, Peterson, D, Woods, R, Kassebaum, A, McKenzie, D, Simpson, B & Ramsay, M 2020, *Final Report: Independent assessment of social and economic conditions in the Murray–Darling Basin*, Panel for Independent Assessment of Social and Economic Conditions in the Murray– Darling Basin, Melbourne. Accessed at https://www.dcceew.gov.au/sites/default/files/documents/panel-report.pdf

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5. Water Balance Accounting Frameworks

SmartRivers continues to advocate for continuous improvement in water balance accounting reporting through the production of meaningful and comprehensive flow reports. At a local level, the ongoing commitment of the Department regarding transparency of flow management in the Lower Balonne region is appreciated and acknowledged.

SmartRivers now produces our own water flow reports to ensure that a clearer picture of the whole of system assessment of a flow event is captured. Reports are available on our website at https://smartrivers.com/flow-reports.

FEEDBACK / ACTIONS

- Timely publication of the Queensland Department of Regional Development, Manufacturing and Water flow event report
- A commitment by the Department(s) to publish data showing all volumes consumed by the rivers and floodplains (including seepage and filling of waterholes and floodplain wetlands, and evaporation)
- Inclusion of an assessment of flow data from the Qld/NSW border to the Barwon-Darling Rivers (the End of Valley Flow for the Lower Balonne).

Thank you for the opportunity to give feedback in this submission.

Yours faithfully

Frank Deshon
President

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Appendix 1 - Northern Basin Toolkit Measures Background

Toolkit Measures – Co-designed strategies

Over a four (4) year period a highly respected group of people, with varying perspectives on basin reform from throughout the Basin, worked diligently as the Northern Basin Advisory Committee (NBAC) to find positive solutions to a very difficult Northern Basin Review. The committee delivered a unanimous report in 2016[5]. After significant negotiation and a lengthy consultation process, the Northern-Basin specific 'Toolkit Measures' were developed and published by the Murray-Darling Basin Authority.

The Toolkit is a suite of measures to improve water management practices and passage of flow without depending on additional water. Initiatives were to be designed to promote fish movement and habitat through infrastructure works such as fishway construction or changing water sharing rules and arrangements to better protect water for the environment.

The original six (6) Toolkit Measures were:

1.	Arrangements to protect environmental flows
2.	Targeted recovery of water
3.	Event-based mechanisms (such as options for pumping and store-and-release)
4.	Improvements to the coordination and delivery of environmental water
5.	Environmental works and measures to promote fish movement and habitat (such as building fishways)
6.	Removal of physical constraints in the Gwydir catchment to improve flows to the wetlands.

Source: https://www.mdba.gov.au/basin-plan/northern-basin-projects accessed 2018 - 2022

[5] https://www.mdba.gov.au/publications-and-data/publications/northern-basin-advisory-committee-report-northern-basin-review

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Appendix 2 - Northern Basin Toolkit Measures : Project Development

Timeline Of Events: Collaborating for Improved Outcomes

2013 – 2016	MDBA conducts a four (4) year review
2016 (October)	NBAC (Northern Basin Advisory Committee) publishes "Finding the Balance" recommending a Toolkit approach.
2019 (July)	The first Round Table is established to progress the Toolkit Measures (and address other water related issues in the Lower Balonne catchment.
2020 (February)	Lower Balonne Bifurcation Weirs Tour and workshop (B1 – B3 plus Sandy Culgoa)
2020 (March)	Queensland Government agrees to conduct a Bifurcations Weir Review Pre-Feasibility Report (and to engage with the Round Table group in producing this report).
2020 (May)	Round Table 4 – Bifurcation Weirs Consultation (including consultation by the BRC regarding the review of Bifurcations Weir Structures [against the original intent of 1971].
2021 (March)	Commonwealth Government announces approval for 10 (Ten) Toolkit Projects including a Business Case for a Bifurcation Weirs review.
2020 (December)	Round Table 5 – Advocate progress on engagement and consultation on the Toolkit Projects rollout.
2021 (November)	Round Table 6 – Advocate progress on engagement and consultation on the Toolkit Projects rollout.
2022 (June)	Round Table 7 - Update on Business Case Project. Requested an update on engagement and timeline (30/6/22)

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Appendix 2 Continued

2023 (January)	Round Table 8 – Further consultation on Business Case Project(s)
2023 (May)	Round Table 9 – Further consultation on Business Case Project(s). Stakeholders raise concerns regarding original toolkit project intent and feasibility, and, announcement delays (including the deadline of project completion by June 2024)

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Appendix 3 – Approved Lower Balonne Toolkit Projects Summary

Approved Toolkit Projects – Lower Balonne

Project Number	Project Name	Delivery By
QFFWE_2	Enhance the Flexibility and Capability For Distributing and Managing Low Flows Through the Lower Balonne River System Bifurcation Weirs. • Currently in business case stage	Sunwater Status Update: Business case submitted to the Cwlth
QFFWE_2	(1) Fencing projects • 8 agreements are in place with private landholders in the LB • Riparian fencing and off-stream watering points • Expected to be completed Dec 2022 (2) Fish Friendly Water Extraction: Condamine-Balonne and Border Rivers Fish Screens (on pumps) • Accelerated project • 11 agreements for landholders (20 pump stations in total, one (1) in LB) • Finding suitable sites has been challenge • Projects finishes 2024	Southern Queensland Landscapes
QRC	Queensland Reconnecting Catchments: Condamine-Balonne project (Jack Taylor and Beardmore dams) • Have been advised that the preferred design for JTW is a vertical slot fishway, Beardmore Dam is a fishlock and weirs at B1 is a cone fishway	Sunwater
QICFR_3	Queensland Improving Within-Catchment Fish Resilience – Lower Balonne project (Culgoa)	Sunwater

Source: https://www.awe.gov.au/water/policy/mdb/basin-plan/northern-basin-toolkit accessed 2022