Healthy Rivers Ambassadors

Promoting a healthy, working Murray Darling Basin for the future

HEALTHY RIVERS LOWER MURRAY

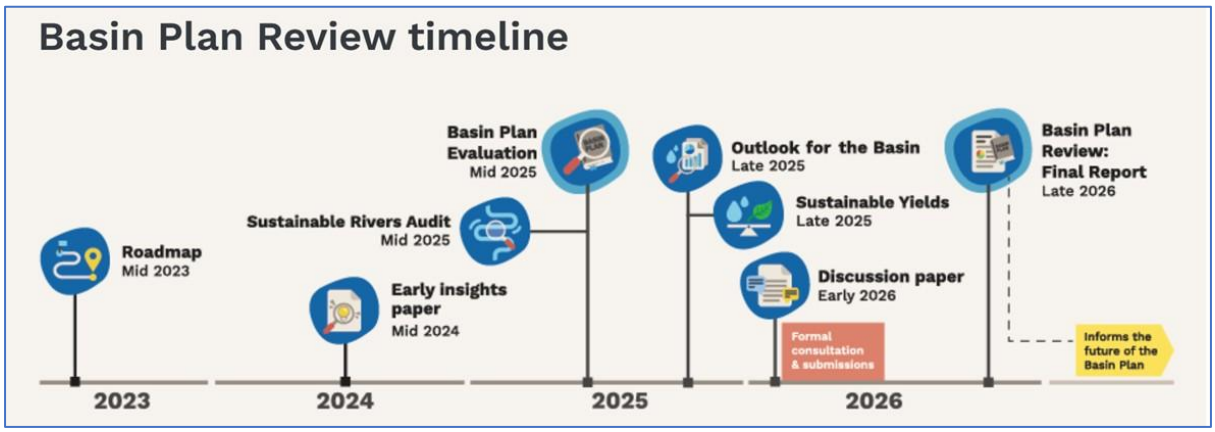
THE MURRAY-DARLING BASIN PLAN AT A GLANCE in 2026

The Murray-Darling Basin Plan, initiated under the Water Act 2007, commenced in 2009 and finally signed on 22 November 2012, aimed to provide a better balance between water extraction and ecosystem health by reducing over-allocation of water for consumptive use, and taking action to halt and reverse the health of basin ecosystems.

In 2007, the Basin Plan was a $10 billion package over 10 years, with:

- $3 B for water buy-backs
- $6 B for improved irrigation efficiency
- $0.5 B for improved water resources forecasting by the Bureau of Meteorology
- $0.5 B to establish the Murray-Darling Basin Authority,
- and an extra $2.9 B was added later by Kevin Rudd for necessary governance changes.

The Basin Plan commenced implementation from November 2012 and is required legally to be reconciled against its targets by December 2026. An intensive review process has been underway since 2023, as outlined in the diagram below. An intensive three-month consultation process has been completed on 1 May 2026, and the MDBA will report to the Minister for Environment and Water by September, with the Final Report due in late 2026. Background reports and supporting materials are listed at the end of this information sheet.



It is the view of Healthy Rivers Lower Murray, as signatories to the Lifeblood Alliance submission to the Discussion Paper, that the Basin Plan has not achieved its primary goal, to reverse over-allocation of water resources. It has not arrived at an ecologically sustainable level of take, as required in the legislation. Implementation has not been based on best available science. This was the conclusion of the SA Royal Commission into progress with implementation of the Basin Plan[1] and no significant progress has been made since then.

[1] Government of South Australia (2019). Report of Murray-Darling Basin Royal Commission

Understanding Components of Basin Plan

The Basin Plan implementation process comprised several complementary elements and programs intended to deliver the desired outcomes of reversing over-allocation and halting and then reversing environmental decline.

Setting an Ecologically Sustainable Level of Take

The issue of over-allocation was raised from the early 1990s, resulting in the 1995 Cap on diversions across 24 river valleys, to a total of 12,000 GL/y[2]. However, as the impacts of the Millenium Drought became apparent, with tens of thousands of river red gums stressed, dying or dead in the Murray Valley, the first steps were taken in 2003 towards returning water to the environment to prevent catastrophic damage, with the Living Murray Program (TLM) setting a target of recovering 500 GL/y.

Sustainable Development Limits were set for each of 29 surface water resource units using science-based methodology, and tested against 2400, 2800 and 3200 GL/y recovery volumes. An assessment by the Goyder Institute found that even 4000 GL/y with all constraints relaxed would not deliver the desired outcomes for the internationally important Chowilla or Coorong wetlands.

Water recovery target

Disappointingly, the initial annual water recovery target was 2750 GL/y, a number generated from intense lobbying by interest groups and political influence, not based on science. This volume could not actually deliver all of the environmental targets in the Plan (science suggested a minimum of 4000 GL/y was required to prevent further decline, and much more water, up to 7000 GL/y, would be required to reverse decline in Basin health).

To June 2025, 3124 GL of water entitlements with varying levels of security have been recovered, with a long term Diversion Limit Equivalent (LTDLE) of 2150 GL/y – indicating the estimated actual water available for delivery in an average year[3]. The actual amount able to be delivered in any year is also subject to physical and regulatory constraints which are obstructing delivery to priority targets.

An additional volume of 450 GL/y was negotiated to deliver environmental and water quality benefits throughout the Southern Basin, to be recovered through efficiency projects. If delivered, these flows will benefit all the icon sites of the Southern Basin, including vast red gum forests in NSW and Victoria, Hattah Lakes and Chowilla Floodplain, with return flows continuing to the Lower Lakes and Coorong. However, very significant resistance from New South Wales and Victoria has meant that effective progress to recover this water has only been made since the passage of the Restore our Rivers legislation in November 2023.

If 3200 GL/y is eventually recovered, 94% of environmental flows indicators could be met, but only if all Constraints projects are completed to allow effective delivery of recovered water (or 72% of indicators met without the Constraints projects).

Adjustments to Initial Agreed Recovery Target

From the initial compromised recovery target set in the Plan, adjustment processes allowed those targets to be further reduced. The Southern Basin target was reduced by 605 GL, subject to 37 ‘off-set’ projects being completed by 2024. The Northern Basin target was reduced by 70 GL, subject to a number of complementary ‘toolkit’ measures being completed, also by 2024.

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[2] Murray–Darling Basin Cap register to 2023-24

[3] It should be noted that this volume is likely to be an over-estimate, given the complicated formula used for this calculation, as well as the use of historic flows in wetter times from 1896-2009 as the baseline, and complex additional factors to account for states’ annual allocations of take.

Both processes have seriously failed to deliver the projects which were meant as alternatives to recovery of real water. In 2026, it is predicted that the off-set projects will fail to deliver as much as 195-314 GL, with the shortfall to be recovered by other means, including water buy-backs from willing sellers. There is fierce resistance from irrigation and regional communities against further buy-backs, in spite of the fact that they have been proved to be the most effective and efficient method for water recovery, and that background investigations found that water recovery has had less than 2% impact on agricultural production in the Basin[4].

The Inspector-General released a scathing report in April 2026 that found no effective tool kit projects had been completed to justify the 70 GL/y credit for water recovery in the Northern Basin[5].

Water for the Environment

Recovered water is held and managed by the Commonwealth Environmental Water Holder in the Federal Government Environment agency. Since 2013, this program has evolved into a well-coordinated process for cooperation between states, agencies and river operators to the point where they can create a spring pulse flow through seven tributaries, watering wetlands all along the way and re-using environmental water progressively, until flows pass through the barrages into the Coorong. There have been many successful site waterings too, where timely flows have encouraged breeding and regeneration of key species like Southern bell frogs and Brolgas. However, delivery of environmental water is being hampered by physical and operational restrictions which are preventing watering sites that are higher on floodplains or where landholders are objecting to their floodplain land being flooded. These constraints need to be resolved to get the best environmental results from recovered water.

Constraints projects

These projects are about removing constraints to flows, whether physical, structural or operational, and to provide better control of environmental flows. Completion of Constraints projects is absolutely essential to enable efficient delivery of recovered water to environmental targets and to achieve Basin Plan outcomes.

Unfortunately, communities in New South Wales and Victoria have been actively resisting action on constraints projects ever since 2012, in the belief that this will stall any further water recovery. The full benefits of the Basin Plan require that all constraints are removed to allow effective delivery of recovered water.

A proposal to break the deadlock on Constraints has been submitted to the Basin Plan Review (see LBA submission).

Connectivity

Rivers need to connect laterally with their floodplains and longitudinally along their main channels into the next downstream catchment, The Expert Panel on Connectivity[6] has provided detailed recommendation on better management of flows in the stressed Northern Basin, to provide permanent base flows plus timely flushes and small floods to maintain water quality and support native fish populations.

Water Resources Plans

Under the Basin Plan, Water Resources Plans for all sub-catchments were required to be completed by June 2019. Some are still not complete in May 2026. Environmental groups are calling for a requirement for each sub-catchment to make provision for end-of-system flows to be passed downstream.

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[4] Wheeler S, Zuo, A & Pickersgill J, Journal of Rural Studies 109 (2024)

[5] Inspector–General of Water Compliance Northern Basin Toolkit Inquiry Report, the Australian Government, Canberra, April 2026. CC BY 4.0. https://storage.googleapis.com/files-au-climate/igwc/p/prj31526a7d2023993b5ae42/page/NBTK_Inquiry_Report_Final_ACCESSIBLE_PDF_22Apr2026_.pdf

[6] Dula, A, Duncan, P, Sheldon, F, Smith, C, Southwell, M & Townsend, P (2024). *Connectivity Expert Panel Final Report*. NSW Department of Climate Change, Energy, the Environment and Water, Sydney.

Floodplain harvesting is taking significant amounts of water from the upper Barwon-Darling catchment, reducing flows to Menindee Lakes and the Lower Darling.

Compliance and Enforcement Issues

The Basin Plan is only as good as its implementation, particularly compliance with the associated regulations and the intent of the Plan to reverse over-allocation of water. Major issues remain with the New South Wales government over allowing irrigators to capture environmental water, as well as allowing landholders to block critical deliveries of environmental water. NSW state regulations have allowed irrigators on the Upper Darling to take much more water at lower flows, leading to the capture of tax-payer funded environmental water by irrigators and no flows to the Lower Darling. Major fish kills in the Lower Darling in 2018-19 were attributed to reduced flows leading to algal blooms and de-oxygenation of fish habitat.

Basin Plan Environmental Targets have not been Met

The Basin Plan included:

- 7 intermediate targets (to 30 June 2019) – requiring no further loss or degradation in flows, connectivity, assets, functions, the Coorong, Lower Lakes and Murray Mouth regime, condition and recruitment of native species after that date
- 7 long term targets in the same parameters requiring improvement in condition from 1 July 2019.[7]

These targets included specified areas of vegetation communities to be maintained in good condition, improved rates of flow in rivers, the maintenance diversity and abundance in key birds, fish and animals, and other condition indicators. Two specific targets required maintenance of the current extent of about 360,000 hectares of river red gum and 409,000 ha of black box in good condition, and maintenance of base flows at least 60% of natural levels. Other targets required improvements to overall flow by 10% more into the Barwon–Darling system, 30% more into the River Murray and 30–40% more to the Murray mouth, keeping it open to the sea 90% of the time.

An assessment by the Wentworth Group of Concerned Scientists in 2024 found that, while economic indicators were mostly improving, environmental indicators were mostly not achieved[8]. The Murray Mouth has been dredged ~90% of the time, owing to the lack of flows to the downstream end of the system.

In addition, 7 targets set for delivery of the agreed additional volume of 450 GL/y have not been met, including floodplain and habitats in Southern Basin, flows to Lower Lakes, Coorong & Murray Mouth, plus salt export target of 2 million tonnes annually through the Murray Mouth[9].

The intermediate targets which required no loss or degradation to 30 June 2019 have already failed, with significant consequences:

- the health of Coorong continues to decline with algal blooms in the Southern Lagoon. The number of migratory waders visiting the Coorong is decreasing significantly[10] even though coordinated flows to the Northern Lagoon were intended to provide critical feeding habitat at this internationally recognised site

[7] Basin Plan Section 7 (2012)

[8] Colloff, Matthew J, *et al*. (2024). 'Murky waters running clearer? Monitoring, reporting and evaluation of the state of the Murray-Darling Basin after more than three decades of policy reform.' *Marine and Freshwater Research*, 75.18 (2024): MF24193.

[9] Basin Plan Section 5 (2012)

[10] Paton, DC, Paton, FL, Whittaker, DA & Markos, DG (2024). Condition Monitoring of the Coorong, Lower Lakes and Murray Mouth Icon Site: Waterbirds in the Coorong and Lower Lakes. Bio·R, The University of Adelaide and Department for Environment and Water

- some site and reach improvement has occurred but is varied and patchy. Decline and stress continue in ecosystems at the wider scale, particularly in lower valley reaches, with an ongoing need for follow up watering to support regeneration post-2011 and 2022 floods
- significant continued decline of waterbirds at Basin scale since 1983, in spite of large floods in 2010-12, limited floods in 2016 and massive floods in 2022-23. Overall numbers are about half of the starting numbers in the 1980s when consistent surveys began[11]
- concerns for threatened species of small native fish, with emergency rescue measures in place for some threatened species[12].

What does 'on time and in full' mean?

The phrase 'on time and in full' has been used throughout this process. The Basin Plan as signed in 2012 adopted 2750 GL as the provisional target. The Ministerial Council approved the 605 GL reduction for the Southern Basin recovery target and the 70 GL reduction for the Northern Basin. This left 2075 GL/y of the original recovery target, plus 450 GL/y to ensure most environmental targets could be met, for a total of 2525 GL/y as the 'in full' target, with a deadline of 2024 for 'on time'. In 2026, recovery sits at 2150 GL/y (LTDLE), so still 375 GL/y short, with constraints still not relaxed.

At the current rate of progress, the Basin Plan will not be delivered 'in full' and certainly not 'on time'. The legislation for the Basin Plan says that, if the recovery targets are not met by 2024, the balance must be obtained by appropriate means, including water buybacks.

Environmental voices need to keep calling for the original Basin Plan to be completed in full and as soon as possible, before commencing the next version of the Basin Plan, which will need to take account of the very serious impacts on water availability being predicted in association with climate change.

What's next?

- *Complete Implementation of Basin Plan as Agreed*
- *Accelerate Action to Halt Environmental Decline*
- *Return Rhythm of the Rivers*

In the next Basin Plan:

- *Take Real Immediate Action to Adapt to Impacts of Climate Change*
- *Highlight Declining Water Quality as an Emerging Threat*

More details are available in the Lifeblood Alliance submission to the Basin Plan Review.

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[11] J.L. Porter, R.T. Kingsford, R. Francis, K. Brandis, A. Ahern, Y. Tidou & D. Simpson (2025). Eastern Australian Waterbird Aerial Survey - October 2025 Annual Summary Report. Centre for Ecosystem Science, School of Biological, Earth and Environmental Sciences, UNSW Sydney

[12] https://natureglenelg.org.au/saving-the-miraculous-murray-hardyhead-sustaining-coordinated-species-level-recovery-actions-across-three-states/

Supporting Information from MDBA

The key documents supporting the Review process are available from the links below:

- Discussion Paper (112 pp)
- Discussion Paper snapshot (20pp)
- First Nations Discussion Paper snapshot (20pp)
- Basin Plan Evaluation (79 pp)
- Basin Plan Evaluation – with supporting assessments (354 pp)
- 2025 Sustainable Rivers Audit – Summary (28 pp)
- 2025 Sustainable Rivers Audit – Full Report (208 pp)
- 2025 Sustainable Yields Report
- The web page 2025 Sustainable Yields | Murray–Darling Basin Authority
- 2025 Murray–Darling Basin Outlook web page 2025 Murray–Darling Basin Outlook | Murray–Darling Basin Authority
- Summary Report
- Technical Report

Murray River over-topping its banks in 2012 high flows in the Woolpunda reach in SA Riverland