Submission

Basin Plan Review

May 2026

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Executive Summary

Water policy reform in Australia has been a constant since the 1990s, steadily transforming the Murray–Darling Basin into one of the most sophisticated and tightly regulated water management systems in the world. Australia has for a long time been considered a world-leading authority on water policy with its water law and regulatory frameworks, underpinned by the water market. Irrigators have also driven significant efficiency gains – often at their own cost or alongside targeted government investment – in response to reduced water entitlements.

Locally, diversions for irrigation, industry and towns have declined since water reform began, and environmental water has been recovered at scale. Even on conservative assumptions, by April 2026 the Basin Plan will have delivered at least 2,530.51GL, with likely outcomes exceeding 2,700GL and possibly approaching 2,945GL. Overall, around one in three litres of water previously used for irrigation has been returned to the environment, if pre-Basin reforms are also included. It is likely that these figures understate actual water use, given uncredited and opaque reductions under NSW water sharing plans and the consistent gap between permitted and actual extractions.

Setting and implementing the Sustainable Diversion Limits, which are now largely in effect, was the centrepiece of the Basin Plan. Over 99.24% of the original surface water recovery target, and over 92% of the groundwater target, has been achieved. It is important that decision-makers recognise this context in the next phase of reform. It is also critical to accept that the environmental gains from water recovery have been realised and there are now diminishing returns from volumes recovered. Any further Basin Plan must focus on environmental outcomes, not reaching volumetric targets.

The policy challenge for the next phase of the Basin Plan has, therefore, shifted. Overallocation and over-extraction are no longer the central risks they once were, instead, the next phase of the Basin Plan must focus on maximising the effectiveness of water already recovered. Complementary measures, such as improving water quality and fish health to lift environmental water use efficiency, must also be prioritised over pursuing further broad-based water recovery. To ensure we maximise the environmental benefit from the significant investment already made, it is time to focus on strategic measures including infrastructure upgrades and integrated catchment management. In a fiscally constrained environment, reform must be highly targeted to achieve environmental outcomes, deliver clearer ecological outcomes, and provide irrigators with the breathing room needed to manage compounding

cost pressures, including rising water and fuel and fertiliser prices, to protect and ensure a future irrigation industry.

Irrigators do not experience water reform in isolation. Policy settings must recognise and cost the compounding consequences of parallel reforms currently underway between the NSW and Federal Governments, while transparently interrogating the socio-economic consequences to irrigation-dependent communities of all past and any further water recovery.

We must also recognise that irrigation in Australia is a good news story and part of the Australian identity. Australian farmers are the second least subsidised in the OECD, operating under some of the most stringent regulatory frameworks while adapting to ongoing climate pressures, and continuing to supply local and global supply of quality food and fibre. Irrigation has done the heavy lifting in water reform over the last three decades; the task for decision-makers now is to consolidate the environmental gains made over this timeframe and bring environmental water use efficiency into balance with Australian irrigation water use efficiency, which is at global best practice.

Eighteen weeks into 2026, the operating environment for water users in New South Wales is characterised by intense and overlapping policy activity, with limited consolidation or sequencing across reforms. Over this period alone, NSWIC has delivered four substantive submissions – to the independent review of the Inspector-General Water Compliance, the NSW Parliament Data Centres Inquiry, the MDBA's Menindee Review, and the Basin Plan Review. NSWIC and our member organisations are also progressing detailed responses to a further four major processes: floodplain management planning (WaterNSW), the NSW Connectivity Program (DCCEEW), pricing determinations (IPART/WaterNSW), and the Productivity Commission review. Additional reform is imminent, with our work turning next to the review of the *Water Act 2007* (Cth).

This volume of reform activity is occurring alongside material policy changes affecting water availability and reliability. Irrigators are continuing to absorb the impacts of renewed water recovery efforts, including the 450 GL target and Bridging the Gap commitments, while also responding to significant rules-based changes – such as amendments to cease-to-pump provisions in unregulated water sharing plans and revised Menindee triggers – both of which have direct implications for access and reliability. NSW will also undertake significant work through WSP reviews in 2026 and 2027 analysing long-term annual average extraction limits (LTAAEL) and re-assessing minimum inflow assumptions used in making annual water determinations (AWD.

Taken together, this reflects a system defined by multiple agencies working in silos and running reforms in parallel not in sequence with cumulative impacts to water users not being adequately assessed or managed. The Basin Plan Review therefore represents a critical opportunity to restore coherence: to align reform processes, re-establish clear policy sequencing, and ensure that environmental objectives are pursued without compounding uncertainty or undermining the reliability framework that underpins productive water use and regional economies.

NSW Irrigators' Council

NSWIC is the peak body representing irrigation farmers and the irrigation farming industry in NSW. NSWIC has member organisations in every inland valley of NSW, and several coastal valleys. Through our members, NSWIC represents over 12,000 water access licence holders in NSW who access regulated, unregulated and groundwater systems.

NSWIC members include valley water user associations, food and fibre groups, irrigation corporations and commodity groups from the rice, cotton and horticultural industries. NSWIC engages in advocacy and policy development on behalf of the irrigation farming sector. As an apolitical entity, the Council provides advice to all stakeholders and decision makers.

NSWIC recommendations

Sustainable Diversion Limits

1. No more water recovery (by any means).
2. MDBA to include additional contributions made by WSP changes in NSW and count these as offsets to water recovery targets.

Sustainable Diversion Limit Assessments

3. NSWIC does not support lowering the SDL in Barwon-Darling, Murray, Murrumbidgee or Gwydir, noting that environmental issues in these valleys stem from issues unrelated to flow and ecological outcomes are all "likely" to be met.
4. In the coming months, the MDBA should work closely with stakeholders in the SDL units that have been flagged as "at risk" to better understand issues and avoid further water recovery.
5. Any losses incurred due to increased flows down the Upper Murrumbidgee should be offset by an environmental water holder and ensure no negative third-party impacts to water users downstream.
6. NSWIC does not support changing any groundwater SDL but encourages NSW and the MDBA to work with peak-bodies in respective valleys to monitor these areas.

Sustainable Diversion Limit Adjustment Mechanism shortfall

7. No further water recovery to make up for any SDLAM shortfall.
8. Remove the requirement to realise SDLAM offsets or amend the SDLAM methodology to include non-flow-based offsets.

Northern Basin Connectivity

9. No more additional water recovery is supported for northern connectivity, as SDL assessments show that current water volumes are sufficient.
10. MDBA to scrutinise work done by the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) in its Northern Basin Connectivity Program, to ensure an accurate and complete cost-benefit of proposed changes.
11. No changes to northern Basin SDL until a proper review and cost-benefit analysis has been conducted by the MDBA and all other non-flow options have been exhausted.

Maximising the benefit of water for the environment

12. Include a list of potential complementary measures, their anticipated environmental benefits and approximate costs

Improving floodplain and wetland health

13. Prioritise community-supported constraints programs, with local knowledge built into program design.
14. Advocate for targeted watering of wetlands or environmental assets where that is more cost-effective or more widely supported than overbank flows.

Responding to native fish decline

1. Reducing European carp should be elevated as the number one policy outcome, highlighting its impact in driving environmental degradation in the Basin. Appropriate funding should be given to prioritising urgent and immediate action to reduce carp populations.
2. Advocate for more investment in modern, fish-friendly infrastructure such as fish ladders, fish screens and cold-water pollution measures.
3. Provide assessments and costings for priority fish-friendly infrastructure projects.

Managing water quality

4. Share the costs of water-quality mitigation equitably, rather than leaving them with irrigators.
5. Use a holistic approach to manage water quality that includes targeted flows, riparian management, pest control and infrastructure improvements.

Water infrastructure and critical human water needs

6. Provide assessments and costings for priority infrastructure projects.

Basin Plan regulatory design

7. Simplify accreditation of water resource plans in the next iteration of the Basin Plan.
8. Ensure NSW undergoes the same due process and assessment standards as other Basin states in relation to Commonwealth PEW.
9. Find a more effective way of delivering SDLAM projects if the program is continued.

10. Re-examine failures in program rollouts to ensure more timely and cost-effective delivery of complementary measures and related programs.

Improving science and knowledge to inform Basin water management

11. Re-affirm the central role that agriculture plays in regional economies and food security and provide investment in its future.

Climate change

12. Maintain SDL at current level, noting that current management frameworks are capable of responding to variations in inflows.

Aboriginal water

13. Ensure that water recovered for Aboriginal people for economic, social and cultural purposes should not have a negative impact on any other licence holders.

Other considerations

14. Next phase of Basin Plan ensures no more water recovery to allow for stability in investment in irrigated agriculture.

15. MDBA should reinforce and operationalise the commitment in Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin 2013.

Next steps

16. MDBA to work closely with SDL units identified as “at risk” to properly assess environmental outcomes and work with local stakeholders to manage any issues.

17. MDBA to release What We Heard report for the Basin Plan review.

18. MDBA to commit to producing some interim or preliminary information to provide back to stakeholders in Q3 2026.

19. MDBA to conduct a public involvement opportunity in September 2026, for stakeholders to give feedback on preliminary findings.

Required clarifications and further work for the MDBA

Based on the Basin Plan Review, NSWIC requests the MDBA undertake further work based on the following points.

1. Model the impacts of relaxed constraints on LoE 1 and LoE 2.
2. Quantify the environmental improvements from various complementary measures.
3. Indicate economic costs of various interventions (including, but not limited to, infrastructure costs).
4. Model the impact of relaxed constraints under both LoE 1 and LoE 2.
5. Clarify which valleys the SDLAM shortfall has been recovered from in LoE 2 and what volumes have been recovered.
6. Review the social and economic impacts of recovering a SDLAM shortfall via water purchase, including on post-farm-gate economic activity such as logistics and processing.
7. Clarify how the MDBA will approach the reconciliation of all water recovery (i.e. additional environmental water that has been added since June 2024) and whether it will re-model a LoE based on water recovery as of late-2026.

1. Sustainable Diversion Limits have largely been met

The centrepiece of the Murray-Darling Basin Plan was setting and implementing the Sustainable Diversion Limits (SDL). Since being implemented in 2019, these limits on extraction have been consistently met and have helped deliver large amounts of environmental water across the Basin. NSWIC calculates that roughly one in three litres of water previously used for irrigation is now reserved for the environment, if pre-Basin Plan reforms are also included.

The original SDL of 2075GL (excluding SDLAM offsets) is largely in effect, with just 15.7GL remaining to "Bridge the Gap". This represents 99.24% of the water recovery that was planned for in the original Basin Plan. Groundwater recovery is also largely complete, with over 92% of the 38.45GL target purchased.[1]

NSWIC undertook work in 2023 that detailed overall diversion levels in NSW.[2] The figures below show how much water was diverted in the inland regulated rivers of NSW between 2010/2011 until 2021/22. Diverted water includes water for irrigation, towns and other uses, while environmental includes operational and all other environmental water. This shows that as of 2023, more than two-thirds of water from regulated rivers remain undiverted.

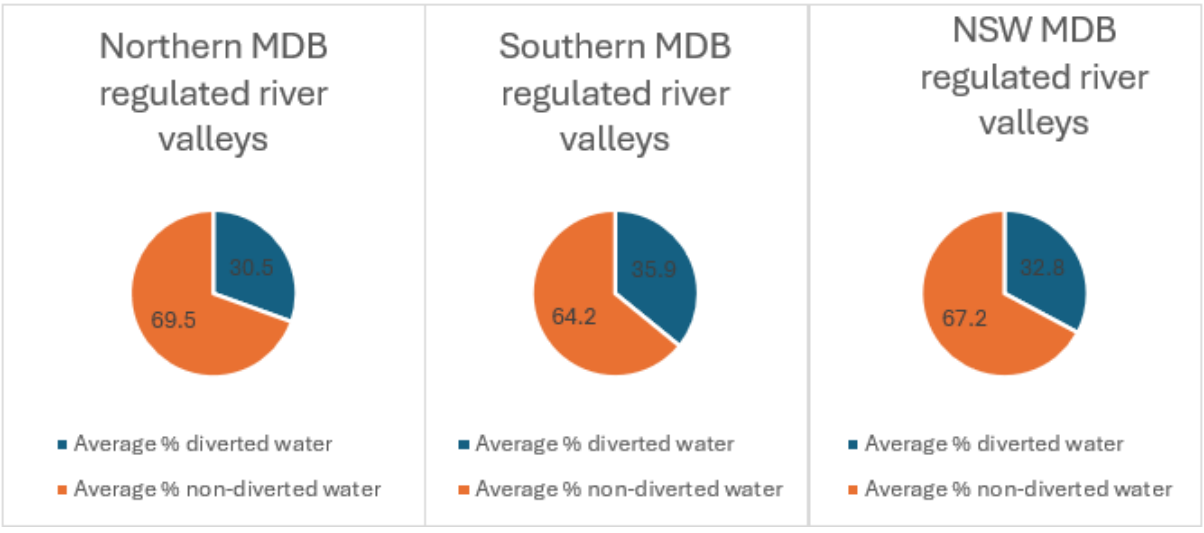


Chart 1. Share of diverted vs. undiverted water in the regulated NSW rivers of the Murray-Darling Basin. Source: WaterNSW Water Insights Portal.

[1] Progress on Murray-Darling Basin water recovery, Australian Government, Department of Climate Change, Energy, the Environment and Water.
[2] Water balance in the NSW Murray-Darling Basin regulated rivers, NSWIC.

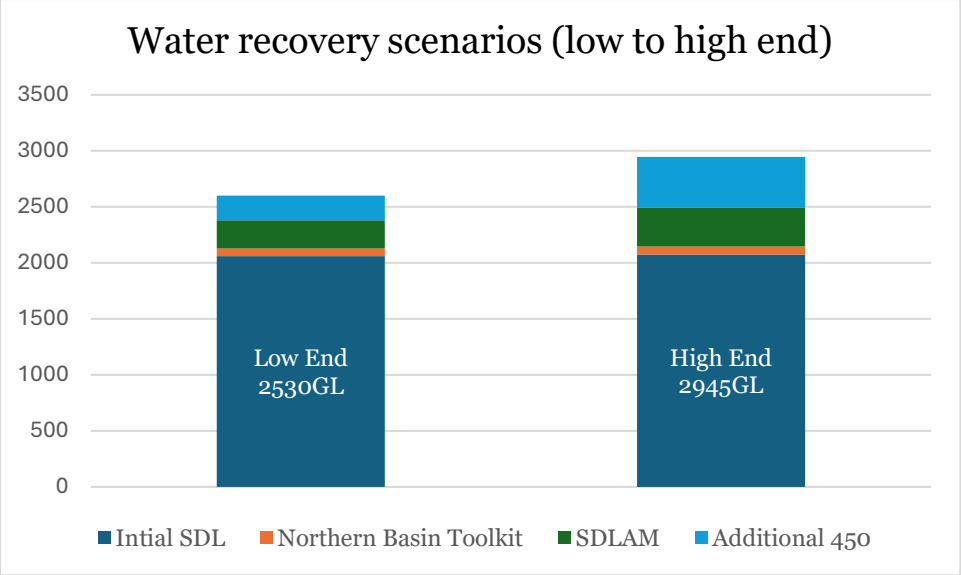


Chart 2. Potential water recovery scenarios (surface water)

Due to the considerable and constant water reforms since 1997, the amount of water diverted available for irrigation, industry and towns has continued to decline. This has helped improve drought resilience and has ensured more water can be delivered to key environmental sites. Based on an assumption of a total water recovery figure of 2709GL for the Basin Plan, diversions account for just 25.15% of total Basin inflows.[3] Chart 2 shows that under a high-end recovery scenario, nearly 3000GL of additional environmental water will have been recovered since 2012.

Environmental water calculations must acknowledge pre-Basin Plan water recovery

It is important to note that significant water recovery also occurred prior to the Basin Plan. This has included a move to volumetric entitlements, planned environmental water rules (for example, the Barmah-Millewa Environmental Allocation), and translucent flow rules, all of which impacted water users' access to water and reduced reliability.

A total of 875GL was delivered across the Basin through these and other programs, including 83GL in the northern Basin and 707GL in the southern Basin between 2004-2009 (with 85GL coming from disconnected systems).[4] It is critical that this water be acknowledged as part of

[3] This assumes 2079GL will have been returned to the environment, based on the baseline diversion figure of 10890GL including in original Basin Plan figures.
[4] NSW Government | Pre-2009 Water Recovery.

the broader reforms that have contributed to important environmental outcomes across the Basin, particularly given many of these changes came at a cost to water users.

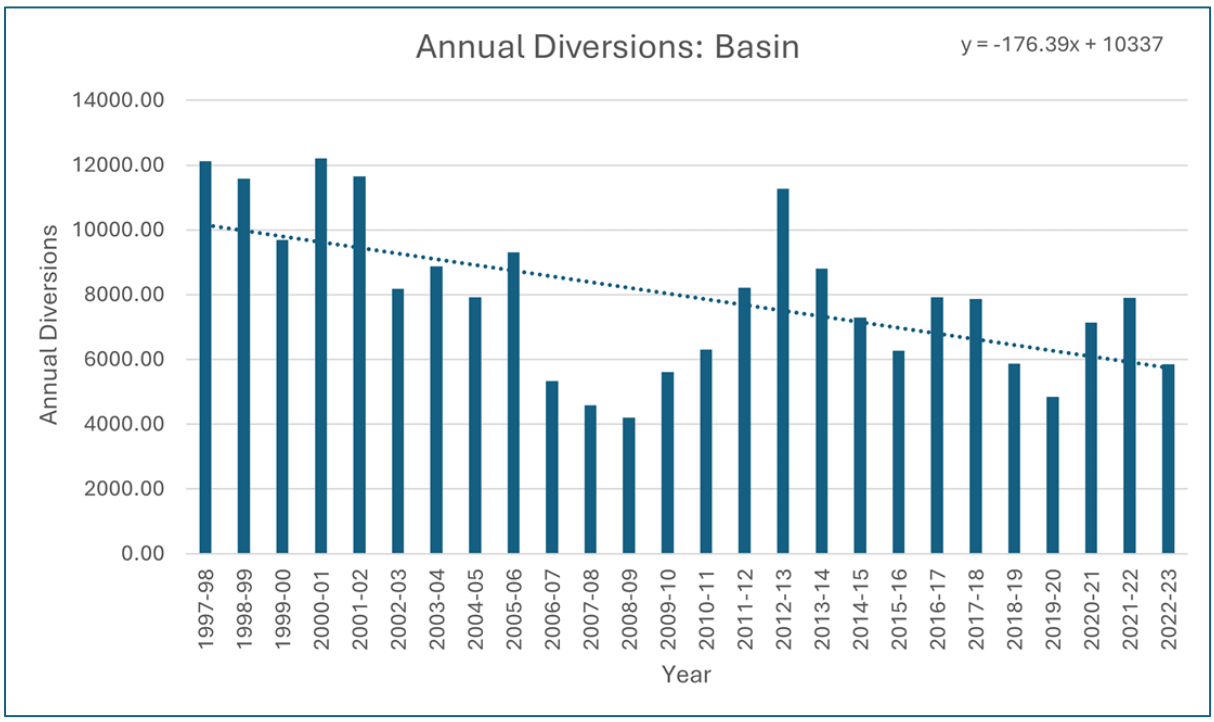
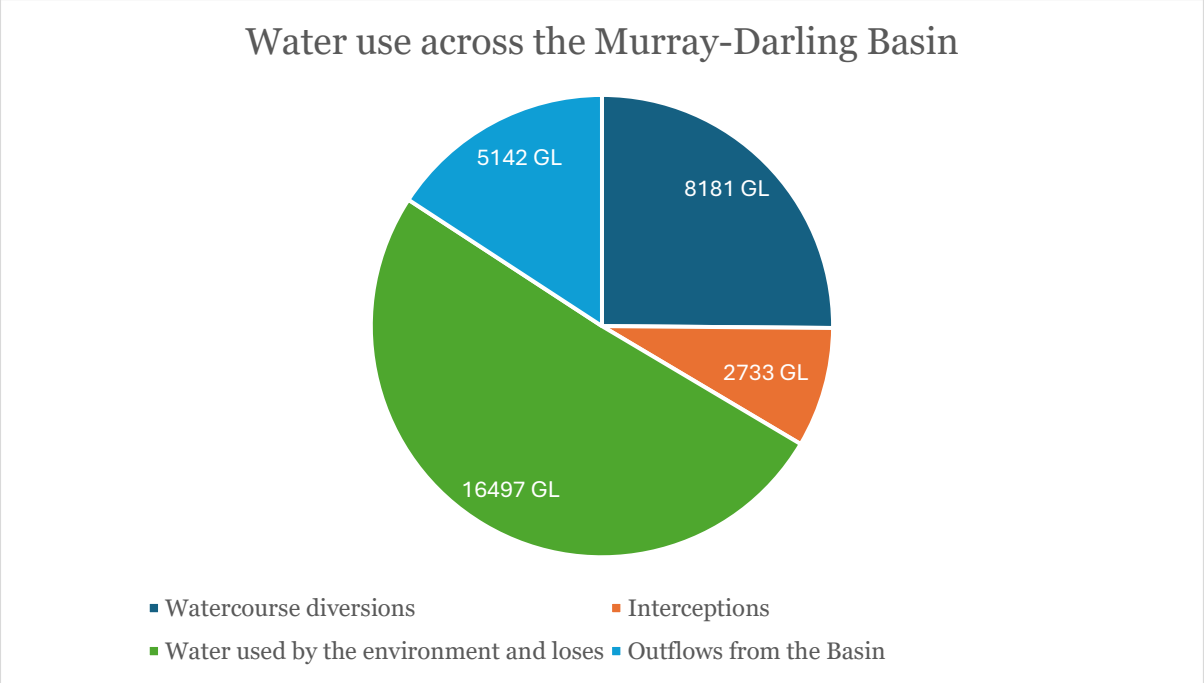


Chart 3. Annual diversions in the Murray-Darling basin over time[5]



[5] National Irrigators' Council, Submission: Feeding Australia Discussion Paper.

Chart 4. Diversions across the Basin. Assumes 2709GL recovered by Basin Plan since 2012.[6]

Note: interceptions include overland losses that do not enter waterways, including evaporation, and seepage into floodplains or forests, or water captured by off-stream storages.

450GL of additional water is being recovered for the environment

In 2023, the *Water Act 2007* (Cth) was amended to recover a further 450GL of water for the environment via water purchases. Although the 450GL recovery target already existed at law prior to these amendments, this water recovery was limited to off-farm infrastructure efficiencies and was conditional on social and economic impact neutrality. The 2023 changes specifically delinked these requirements to any purchases, with water purchase now becoming the government's recovery method of choice (rather than a last resort). NSWIC did not support the 2023 amendments noting that, without relaxing constraints, this additional water provided little environmental benefit.

Notwithstanding, the Federal Water Minister has signalled intent to deliver 400GL by the end of 2026.[7] At the time of writing, there is an additional 221.21GL of water above the SDL registered and contracted for purchase.[8]

If undertaken to completion, this policy will provide a large additional volume of water for environmental outcomes. NSWIC notes that the Water Act requires the Minister to take "all reasonable steps" to recover the additional 450 GL, rather than to achieve the target at any cost. This distinction is critical, as it embeds discretion and proportionality into the legislative framework, including consideration of socio-economic impacts and practical feasibility.

Roughly 300GL water has been returned through Sustainable Diversion Limit Adjustment Mechanism

The Sustainable Diversion Limit Adjustment Mechanism (SDLAM) allows for projects to contribute towards the SDL, assuming that they provide equivalent environmental outcomes with a smaller volume of water. While a final reconciliation has not been conducted, it seems likely that there will be a shortfall in the range of 255GL-355GL – with the higher end shortfall more likely. SDLAM represents water recovery additional to the 2100GL of original water purchase towards the SDL.

[6] Assumes Basin inflows of 32,553GL and 8181GL of watercourse diversions, based on Basin Plan recovery of 2709GL (estimate).
[7] Address to the 2025 Basin Leaders' Summit.
[8] Commonwealth DCCEEW | Progress on Murray-Darling Basin water recovery.

A majority of valleys underuse water below the SDL

A majority of valleys in the Basin report consistent underuse of water below the SDL. The most recent assessment of Cap compliance (for 2023-24) shows that in NSW, there is a 2,152.73GL cap credit that has accumulated since 2019. That is to say, there has been 2,152.73GL less water used than could have been legally taken under the SDL.[9] This demonstrates that use of water is consistently lower than what is legally allowed under the SDL.

State	SDL resource unit	SDL resource unit code	SDL (GL)	Annual Permitted Take[1] (GL)	Annual Actual Take (GL)	Annual Balance[2] (GL)	Cumulative Balance - Start of 2023-24 (may include model and data refresh)[3] (GL)	Cumulative Balance - End of 2023-24[4] (GL)	HEW Adjustments[5] (GL)	Adjusted Cumulative Balance - End of 2023-24[6] (GL)	Compliance Trigger (-20% of SDL)[7] (GL)	Was the trigger exceeded? (Yes/No)
NSW	NSW Murray	SS14	1512.39	1892.44	1421.50	470.94	900.231	1371.17	23.51	1394.69	-302.47	No
NSW	Lower Darling	SS18	37.42	19.86	12.50	7.36	29.44	36.82	0.00	36.82	-7.48	No
NSW	Murrumbidgee	SS15	2142.00	2212.11	2154.21	57.89	-307.03	-249.12	9.56	-239.56	-428.40	No
NSW	Lachlan	SS16	570.01	647.35	560.36	86.98	117.51	204.49	2.68	207.18	-114.00	No
NSW	Intersecting Streams	SS17	119.00	116.46	116.46	0.00	0.00	0.00	0.00	0.00	-23.80	No
NSW	Barwon–Darling Watercourse	SS19	201.10	249.47	233.94	15.53	62.12	77.65	1.91	79.56	-40.22	No
NSW	Macquarie-Castlereagh	SS20	660.21	703.62	686.00	17.61	356.75	374.37	3.00	377.37	-132.04	No
NSW	Namoi	SS21	493.81	518.38	535.73	-17.35	44.33	26.98	13.36	40.34	-98.76	No
NSW	Gwydir	SS22	538.01	580.38	557.50	22.88	127.58	150.46	3.00	153.46	-107.60	No
NSW	NSW Border Rivers	SS23	320.99	214.34	280.72	-66.37	161.22	94.84	8.00	102.85	-64.19	No
		Total	6594.96	7154.46	6558.97	595.49	1492.20	2087.69	65.04	2152.73	-1318.99	

Table 1 NSW surface water interim register of take for the 2023-24 water year[10]

The Basin Plan has delivered large environmental water gains and requires a post-volume policy reset

Significant progress has been made in addressing over-extraction. At an absolute minimum, the Basin Plan will have delivered 2530.51GL by April 2026. This assumes no further water recovery under Bridging the Gap or the 450 and assumes the worst case 355GL SDLAM shortfall.[11]

In reality, this figure is likely to be higher, given the Commonwealth Government's aim to deliver 400GL of the 450 by the end of 2026. Assuming this target is met, the Basin Plan will have delivered 2709.3GL by December 2027 – which is, in aggregate, some 29.3GL more than

[9] Murray-Darling Basin Association, Annual Water Take Report 2022-23, Report on water availability and take under Sustainable Diversion Limits in the Murray-Darling Basin.
[10] MDBA | 2023-24 Sustainable Diversion Limit Accounts Registers of take and interim registers of take.
[11] Figure assumes 2059.3GL towards SDL, 250GL towards SDLAM and 221.21GL towards the 450.

is required to meet the SDLs.[12] Assuming Bridging the Gap is met, a lower end SDLAM shortfall and the full 450, this rises to 2945GL.

There is also some additional water recovery that has taken place in NSW that has not been properly accredited. Under several water sharing plan (WSP) changes in NSW, diversions have been lowered and should at minimum be counted towards one of the environmental buckets.[13] It is essential that this volume be independently audited, transparently accounted for, and included in a calculation of water returned to the environment.

Moreover, diversions are consistently below the permitted level of take and so there is no immediate risk of overextraction in the Basin. The SDL compliance regime is designed to ensure any risk of overextraction is identified early and risk mitigation measures are put in place. This framework has withstood the test of time and should be trusted, rather than further impacting water users by reducing the SDL. The next phase of the Basin Plan must acknowledge the above progress and shift its focus away from volumes-based environmental water targets.

Recommendations

- No more water recovery (by any means).
- MDBA to include additional contributions made by WSP changes in NSW and count these offsets to water recovery targets.

2. Initial SDL assessment results show environmental outcomes will not be achieved by adding more water

The MDBA's initial SDL assessment results show that the existing volumes of water are largely in line with an ecologically sustainable level of take (ESLT). The analysis done by the MDBA under its two Lines of Enquiry (LoE) serve as a good proxy for understanding the environmental impact of additional environmental water. The outcomes of this work show that additional water beyond the original SDL has little effect in achieving environmental outcomes.

[12] This figure is based on a final SDL of 2680, as the SDL was lowered by 70GL due to the Northern Basin Toolkit.
[13] For example, recent changes to unregulated water sharing plans in three northern valleys raised cease to pump triggers, effectively reducing access. NSWIC has outlined several others in its submission to a recent NSW Parliamentary Inquiry.

LoE 1 assumes "current Basin Plan implementation" as of June 2024. This assumes most of the original SDL targets have been met, no additional water via the 450, and roughly 290GL from SDLAM programs remain unmet. LoE 2 assumes the full 450 delivery, with 100GL coming from the northern Basin, and that the remaining SDLAM offsets are met via more water recovery. Comparing these two results allows us to isolate the potential impacts from adding more water, beyond the current targets.

At a high level, adding this additional water only moves the dial in two NSW valleys – the Murrumbidgee and Barwon-Darling (on a select few criteria). For the remaining units where NSWIC has members, SDL assessments are considered sufficient and additional environmental water has no clear additional utility. This demonstrates that water recovery beyond what will have been achieved by the end of the Basin Plan review is of little use to improve environmental outcomes.

We note that the Lower Darling has been flagged as at risk, but modelling shows no difference in outcomes between LoE 1 and LoE 2. Largescale water purchases have occurred in the Lower Darling resulting in a large portion of the water in the Lower Darling being environmental flows.[14] While this area has been noted as suffering from poor water quality and fish health, improving infrastructure and management at Menindee, and taking meaningful steps to reduce carp populations, are priorities to address these concerns.

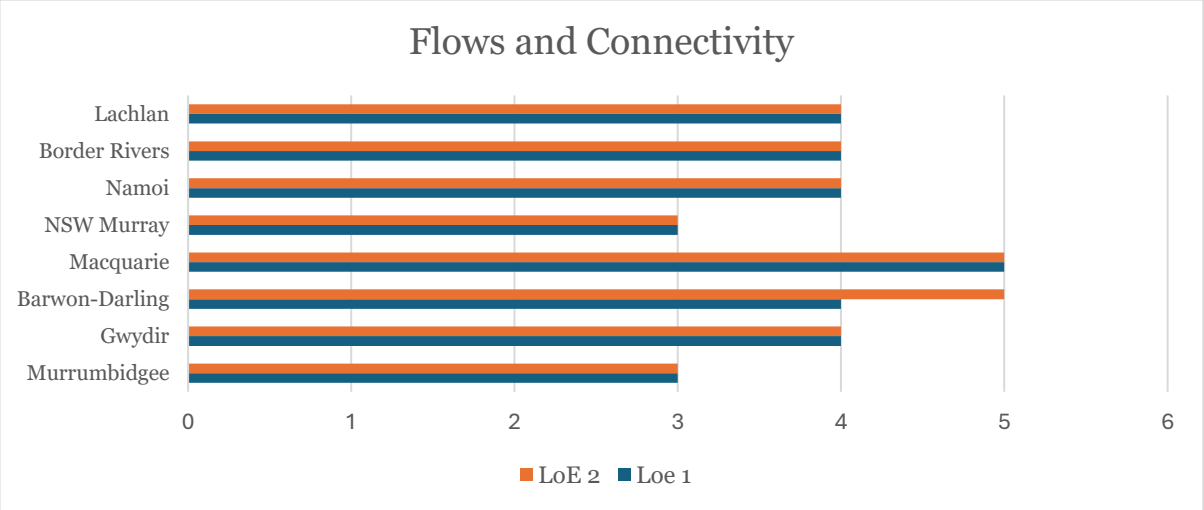


Chart 5. Flows and connectivity comparing LoE 1 and 2

[14] CEWH | Water Holdings.

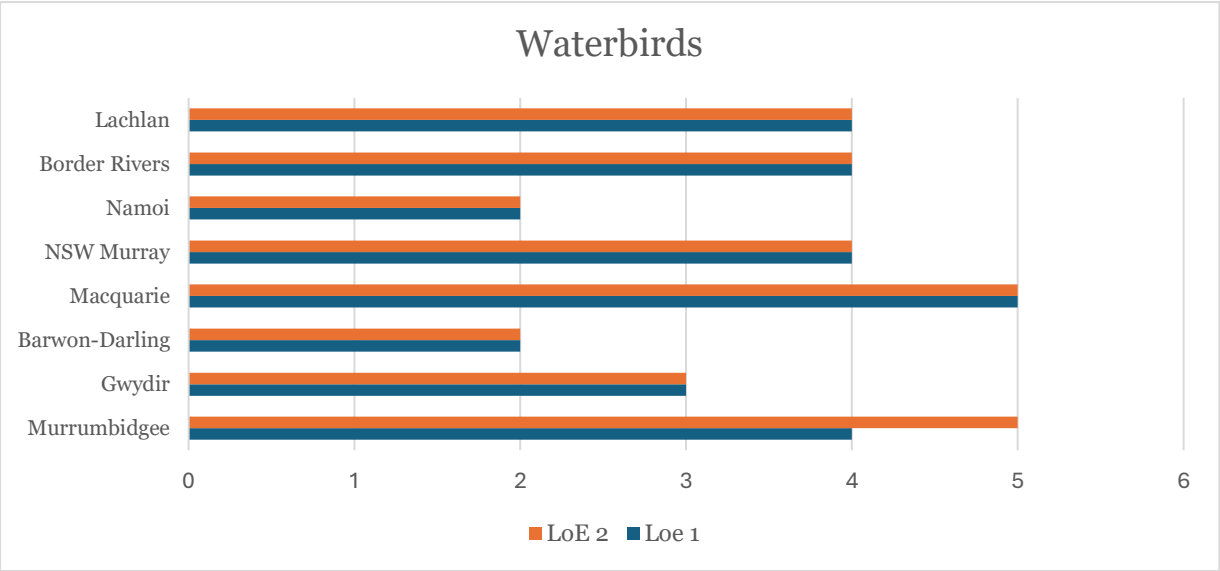


Chart 6. Waterbirds outcomes comparing LoE 1 and 2

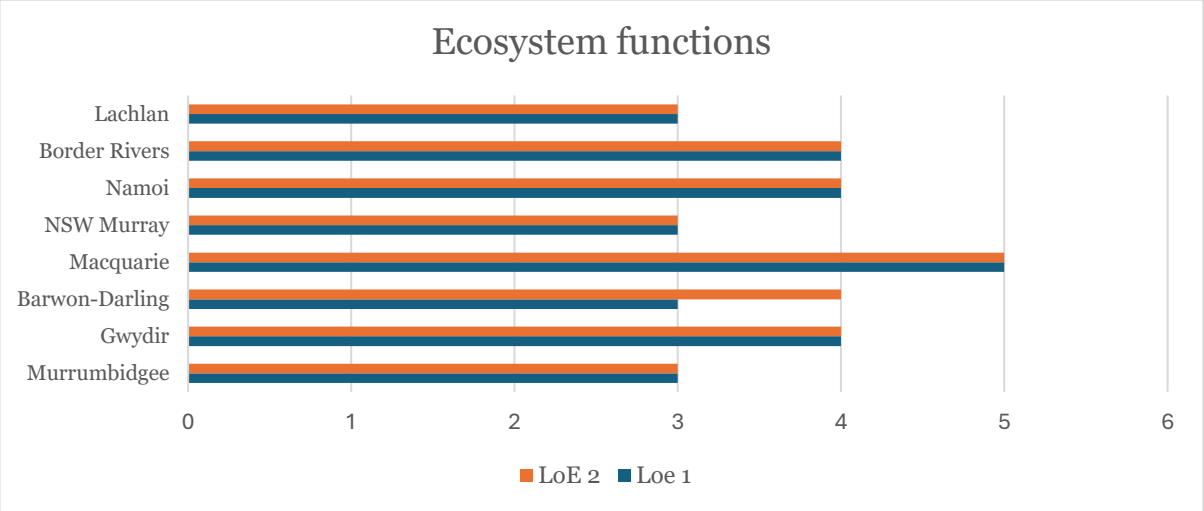


Chart 7. Ecosystem functions comparing LoE 1 and 2

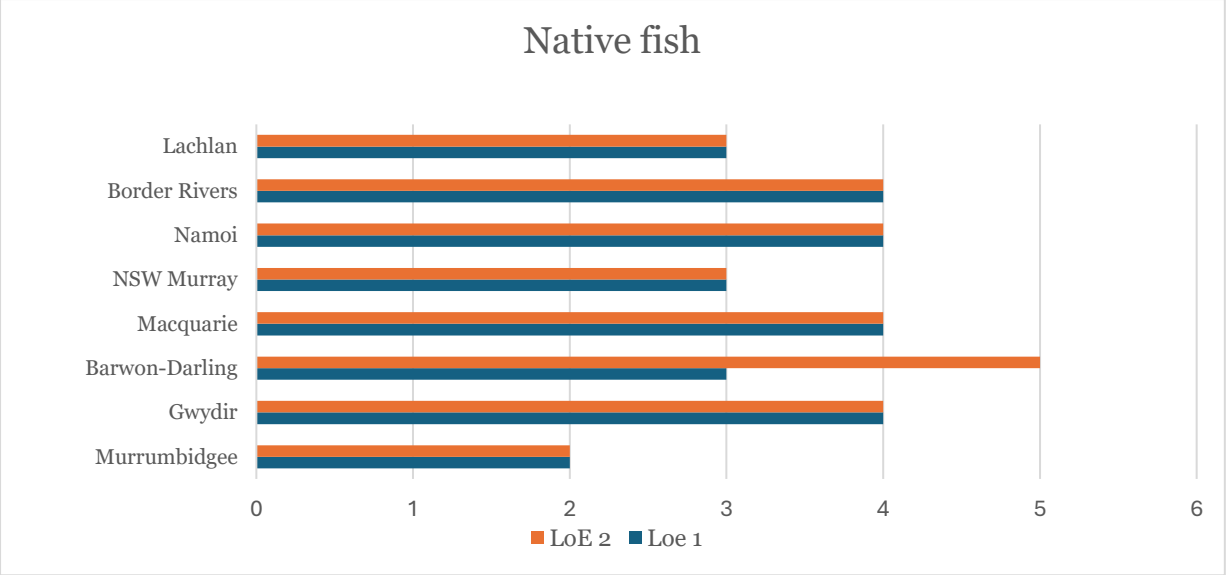


Chart 8. Native fish comparing LoE 1 and LoE 2

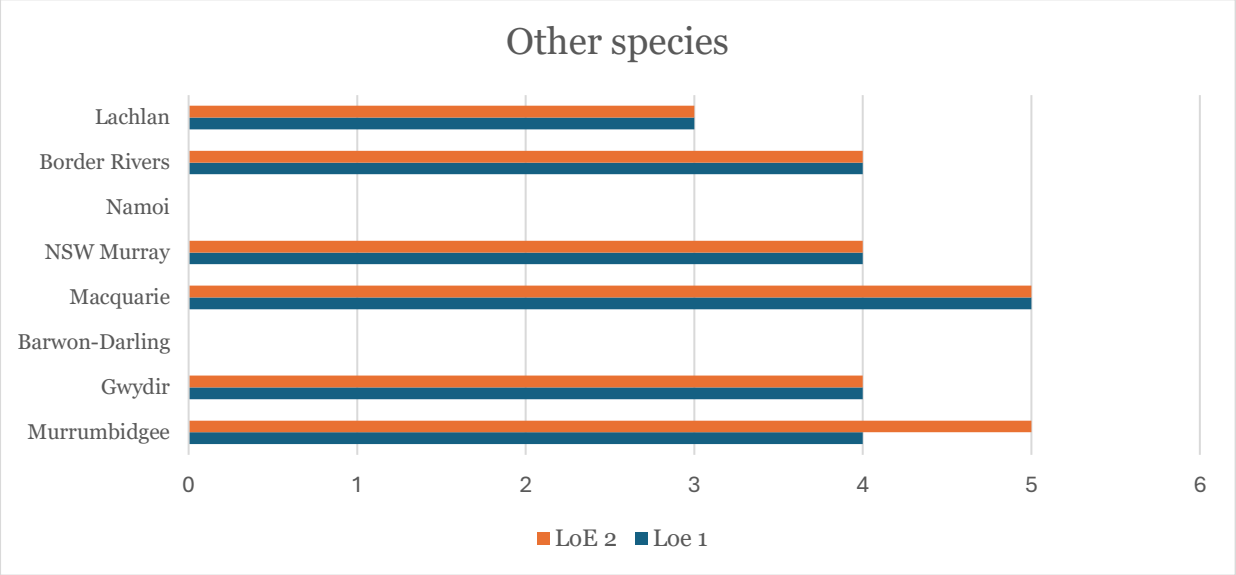


Chart 9. Other species comparing LoE 2 and LoE 1

As the charts above demonstrate, adding additional water to make up for a SDLAM shortfall or to reach the 450GL target has very limited impact. It shows that in most valleys, an ESLT can be met, even without the 450GL or additional water from a SDLAM shortfall. These assessments make the case against further water recovery and demonstrate that existing volumes of water are sufficient.

Barwon-Darling

The SDL assessment shows that additional water under the LoE 2 leads to improved outcomes in flows and connectivity, ecosystem functions and native fish. This line of enquiry has added 100GL to the northern Basin and roughly 300GL from unmet SDLAM targets – however, it is not clear how much additional water this scenario assumes has been added to the Barwon-Darling, or what the interaction is with modelled assumptions in upstream systems.

NSWIC would like to see the SDL re-assessed, based on a "reconciliation" volume at the end of 2026 or 2027. NSWIC does not support lowering an SDL, based on scenarios that do not accurately reflect the total water balance. For example, by the end of 2026 or 2027, there may be more environmental water in the northern Basin from ongoing 450 purchases, and we need a proper understanding of how this impacts the LoE and the SDL assessments.

We also seek more information as to why the Barwon-Darling is at risk, given its "flows and connectivity" score is four out of six (in line with the northern tributaries). While scores of "more likely than not" typically do not result in an SDL unit being flagged, in the case of the Barwon-Darling it has been deemed at risk. NSWIC would like a further explanation of the drivers for this issue, as part of supplementary work undertaken by the MDBA.

Low flows in the Barwon-Darling

It is important to acknowledge the trends in climate and how these relate to cease-to-flow events. NSW documents note that the Barwon-Darling has stopped flowing naturally from time to time and that "indications are that the increasing cease-to-flow events are predominately due to changing climate."[15] While upstream extraction reduces the amount of water available downstream, to the MDBA must also highlight the marginal role water diversions play in long periods of low flows, as typically extraction is prohibited during dry periods.

The MDBA flagged the Barwon-Darling and Lower Darling as a concern only with regards to "inadequate base and low flows".[16] In acknowledging the impacts of climate variability and climate change, it is important for governments to also acknowledge that causes of low flows are not solely the fault of upstream extraction or water users. Roughly speaking, the period from 1900-1950 was relatively dry, 1951-1990 was relatively wet, and the period since 1990 has seen a return to dry conditions.

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[15] NSW Department of Planning, Industry and the Environment | Cease-to-flow and low-flow events in the Barwon-Darling River.
[16] Discussion Paper: Murray-Darling Basin Authority.

Extraction across the Basin has steadily declined from the late 1990s, with at least 3000GL of water having been returned to the environment. In the Barwon-Darling, diversions represent just 6% of long-term annual extractions. The long-term annual extraction limit (LTAAEL) in the Barwon-Darling is 214GL, with water for the environment representing 94% of flows on a long-term average.[17]

There have also been considerable reforms in the Barwon-Darling in recent years. As part of the Claydon Review in 2021 numerous changes were made to this stretch of river. Among the changes eventually made were a first flush rule, raising A-Class licence pumping levels and adding Individual Daily Extraction Components (IDEC).[18]

A NSW omnibus amendment order made in February 2026 further raises the floodplain harvesting (FPH) trigger at Menindee in the northern tributaries, with effect from mid-2026.[19] As of April 2026, there is also a section 324 temporary water restriction on the Barwon-Darling and northern tributaries to restrict water take until there is an active volume of water at Menindee of 250GL. These changes will further improve environmental outcomes down the Barwon-Darling if managed appropriately.

NSWIC also notes the Inspector-General's findings that the lapse of the Barwon-Darling Water Sharing Plan in mid-2025 left the system without functioning protections or accounting mechanisms for environmental water for an extended period, until a section 324 temporary water restriction was imposed on water users in December 2025 and the water sharing plan was ultimately remade in February 2026. The result was that more than 40 GL of Commonwealth environmental water remained unused. This breakdown also disrupted the Menindee Lakes connectivity trial, illustrating that environmental outcomes are being compromised by administrative failure rather than physical limits within the system.

[17] Water Sharing Plan for the Barwon-Darling Unregulated and Alluvial Water Sources 2012.
[18] NSW-DCCEEW | Final update on the implementation of the 19 key recommendations from the Claydon Review.
[19] NSW DCCEEW | 2026 water sharing plans omnibus amendment order.

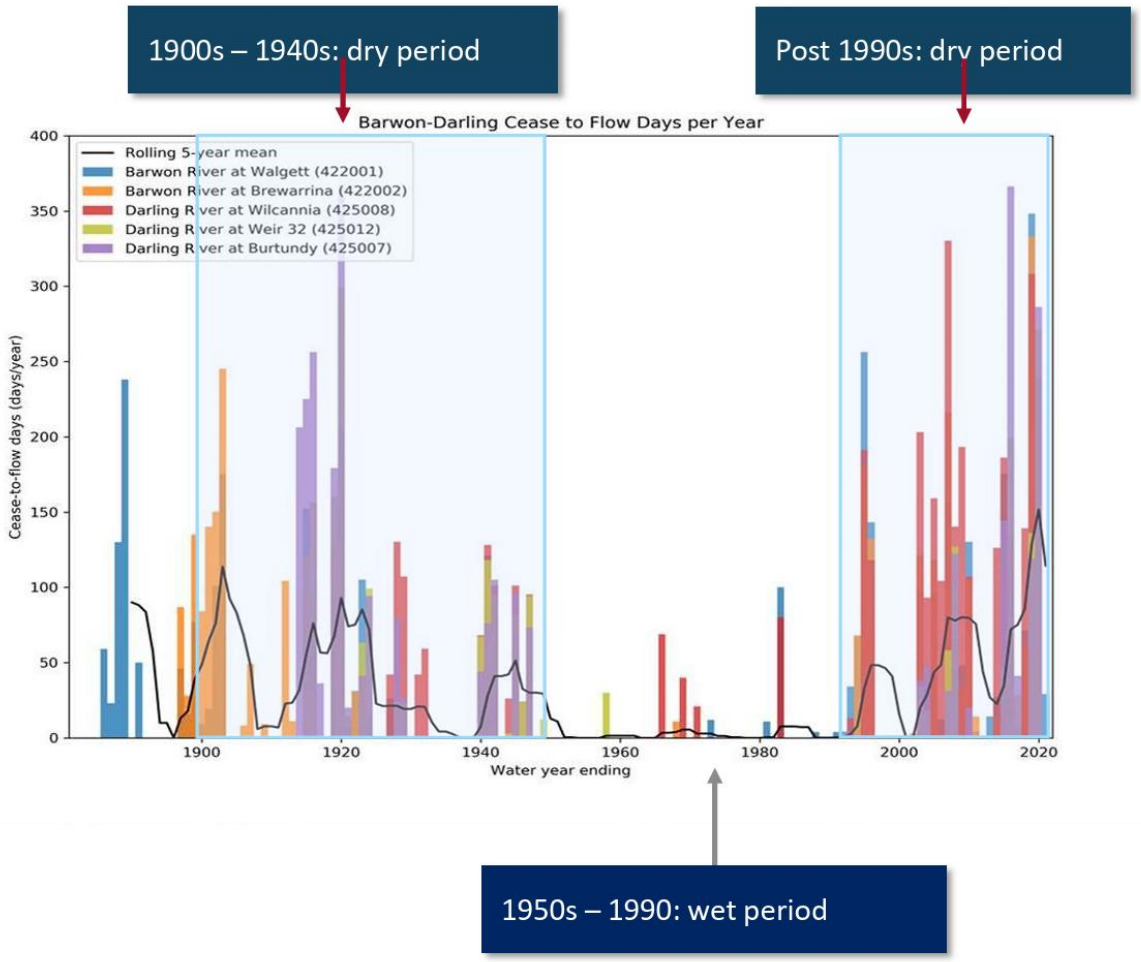

Figure 1. Barwon-Darling cease-to-flow days at Walgett, Brewarrina, Wilcannia, Menindee and Burtundy in the historical record.[20]

SDL assessment for Barwon-Darling is likely adequate by the MDBA's own measure

The main areas that improve under LoE 2 are flows and connectivity, ecosystem functions and native fish. With regards to flows and connectivity, even under LoE 1, they are stated to be "more likely than not" to meet the objective. Under other SDL units, this score is generally considered adequate to maintain current the SDL, so NSWIC is unsure why it has been flagged as an issue in the Barwon-Darling. While the MDBA has flagged low flows as leading to fish decline, we note that there is a low degree of certainty. There are numerous other management options to improve fish outcomes beyond additional volumes (see below).

[20] NSW Department of Planning, Industry and the Environment | Cease-to-flow and low-flow events in the Barwon-Darling River.

The SDL assessment also states that the main issue relates to "pattern of flow" rather than "sufficiency of flow". This implies that the issue is not with the amount of water, but the timing of flows. NSWIC would appreciate more explicit information on what kind of pattern the MDBA thinks would address this issue, for example, whether it is a question of timing. If so, it is important for the MDBA to consider how it might address these issues with management changes beyond requiring additional water.

Theme	The *likelihood* that the pattern and volume of flow will support the objectives for each ecological theme							
	Line of enquiry	Very unlikely	Unlikely	About as likely as not	More likely than not	Likely	Very likely	Confidence
Flows and connectivity	LoE 1				●			●●○
	LoE 2					●		●●○
Ecosystem functions	LoE 1			●				●●○
	LoE 2				●			●●○
Waterbirds	LoE 1		●					●●○
	LoE 2		●					●●○
Native fish	LoE 1			●				●○○
	LoE 2					●		●○○
Native vegetation	LoE 1				●			●●○
	LoE 2				●			●●○
Other species	LoE 1							N/A
	LoE 2							

Figure 2. Initial SDL assessment for the Barwon-Darling

Management options other than water recovery for the Barwon-Darling must be considered

NSWIC would like to see other management options also considered for the Barwon-Darling. Under the MDBA's criteria for ensuring "targeted and useful" recommendations, the Authority should consider timing, underlying drivers and feasibility.[21] A considerable amount of work has been done in reducing extraction in the Barwon-Darling and it remains below its SDL, meaning other measures should be prioritised.

The MDBA also notes that "physical barriers such as weirs, regulators and other in-channel structures, while essential for town water security, have constrained water movement and fish passage. Physical barriers also exacerbate water quality issues."[22] This is most evident in Menindee, where a lack of fish passage has contributed to mass fish deaths. The Office of Chief

[21] MDBA | Basin Plan Review Discussion Paper.
[22] Ibid.

Scientist and Engineer Independent review into the 2023 fish deaths in the Darling-Baaka River at Menindee stated that fishways should be built "movement between Lakes Wetherell. Pamamaroo and Menindee, and the Darling River below Weir 32".[23] It also recommended management of invasive species, particularly carp control through "physical, biological and chemical controls".[24]

It is also important to recognise that maintaining connectivity will be naturally difficult to achieve under a drier future climate, regardless of management decisions. It is likely that the Barwon-Darling would still have run dry in the Tinderbox Drought (2017-2020) even if general security (GS) allocations were reduced to 0% and section 324 temporary water restriction orders were placed on water users. In periods of extreme drought, no amount of HEW will mitigate some level of environmental risk (particularly given the smaller headwater storages in the northern Basin). NSWIC also notes that fish deaths occurred at Menindee going into a drought and coming out of a drought (both extreme processes that cannot be overcome).

As the MDBA notes, "future decisions will involve difficult trade-offs about where limited water and resources can deliver the greatest environmental, economic, Cultural and social benefits."[25] As a primary principle in water management, any change made for connectivity should consider all the flow-on impacts to water users and their communities – not be simply a decision to be made regardless of cost. The Barwon-Darling must ultimately support the environment, industry and communities and there is no way to ever fully solve or de-risk ESLT issues. During extensive dry periods, no amount of HEW or management changes can fully safeguard from all negative impacts.

Murrumbidgee

The MDBA notes three areas that are at risk of not being met in the Murrumbidgee – namely, flows and connectivity, native fish and native vegetation. NSWIC's view is that additional flows would do little to address these ecological issues other than in the Upper Murrumbidgee River (UMR). It is NSWIC's view that native fish and native vegetation can be improved with the accompanying complementary measures.

NSWIC acknowledges that flows down the UMR have reduced significantly since Tantangara Dam was built and that subsequent reduced flows have contributed to ecosystem decline. A

[23] Office of Chief Scientist and Engineer, Independent review into the 2023 fish deaths in the Darling-Baaka River at Menindee.
[24] Ibid.
[25] MDBA | Basin Plan Review, Discussion Paper.

review into the Snowy Water Inquiry Outcomes Implementation Deed (SWIOID) is underway and is considering ways to improve flows down this stretch of river.

NSWIC is not opposed to increased flows, as long as there are no third-party impacts on water users downstream (due to the increased transmission losses down the UMR and the eventual reduced volume of water to be re-regulated downstream). On option it to use existing HEW to cover these additional transmission losses, as was adopted in the Upper Murrumbidgee Drought Operating Framework.[26] If these losses cannot be covered by existing HEW, other options that ensure no third-party impacts should be explored (water savings projects, etc.).

Native fish and vegetation outcomes can be adequately addressed without the need to lower the SDL in the Murrumbidgee. While the MDBA notes "unseasonal pattern of flow delivered through the system to support irrigation demands has also been identified as a significant driver", it is not obvious that this issue could be properly addressed, given the importance of water deliveries for irrigation during this period.

Fish decline can however be addressed through reducing instream barriers to fish movement, controlling invasive species like carp and redfin, managing cold water pollution, installing fish screens and lowering sedimentation of instream habitats. Improved lateral connectivity will also help fish dispersal and breeding. Similarly, native vegetation appears to be most impacted by delivery constraints, and land management practices.

We note that land easements are being negotiated in the Murrumbidgee through the Reconnecting River Country Program and this system appears to be the most advanced in landholder negotiations. NSWIC's view is that the current portfolio of HEW is sufficient to deliver these watering events and that the focus beyond 2026 must be on using this water more efficiently for ecological goals. NSWIC does not support lowering the SDL in the Murrumbidgee as additional volumes are clearly not the remedy. We also note that the MDBA believes the current SDL is likely to meet the requirements regardless.

Gwydir

The MDBA review notes that the current SDL is likely to meet the ecological requirements for this section of the river. Consequently, it stands to reason that any potential issues regarding waterbirds in the Gwydir is as a result of well-known barriers to water delivery, not the result of inadequate flows. The MDBA's two lines of Enquiry in the Gwydir also show no positive

[26] Commonwealth DCCEEW | Upper Murrumbidgee Drought Operating Framework.

impact from additional environmental water, and a clear indication that suboptimal waterbird outcomes are due to delivery constraints.

As noted by the MDBA, the major challenge is environmental water delivery in the Gwydir wetlands, which is being addressed via the Gwydir Reconnecting Watercourse Country Program. The Gwydir wetlands receive significant deliveries of environmental water each year, with 40GL planned for the upcoming water year.[27]

Delivering the Gwydir Reconnecting Watercourse Country program is vital for maximising waterbird outcomes. This project must be completed with the implementation of community-supported constraints management, which may include the construction of small levees to channel water to the higher Ramsar sites in the wetlands.

It is also important for all government agencies to work in concert with each other to achieve all related outcomes, rather than having siloed approaches and siloed outcomes-sought, while affecting water users and communities as a result. A landholder's experience with the Natural Resources Access Regulator (NRAR) in the Gwydir Valley represents a clear example of this challenge. Landholders in the Gwydir had developed small bird banks designed to help direct environmental water towards Ramsar sites. They also minimised the inundation on cropping country. These banks were small and caused minimal impacts during floods. These banks provided benefits for environmental delivery to some more difficult to reach sites.

An NRAR investigation found that these earthworks were developed unlawfully and so ordered that they be abolished. In so doing, NRAR had no regard for the incidental environmental outcomes that were being achieved through these works, nor did it consider that the works could have been re-commissioned solely for environmental purposes. Critically, these works had the potential to deliver an outcome for the Northern Basin toolkit Gwydir constraints program.

The works would now need to be redeveloped in order to achieve the environmental benefits that were already being achieved through those works. This would be a timely and costly process, as it would include the process of landholder negotiation on top of all the earthworks required to reengineer the system for environmental benefits. This example shows the misalignment between different government agencies' roles and responsibilities, and the effects of a lack of collaboration that are ultimately worn by the landholders.

[27] Commonwealth Environmental Water Holder | Latest water use – Gwydir Valley.

For the reasons above, and particularly as the SDL assessment show that current volumes are adequate for environmental water delivery, NSWIC does not support any change to the SDL in the Gwydir.

It is also important for all government agencies to work in concert with each other to achieve outcomes, rather than having siloed approaches that cumulatively affect water users and communities as a result. A landholder's experience with the Natural Resources Access Regulator (NRAR) in the Gwydir Valley represents a clear example of this challenge. Pre-regulation, the landholder in question had developed a watercourse to divert flood water. In so doing, flood water was being channelled both for private purposes while achieving incidental environmental outcomes through delivering floodwater to the Gwydir wetlands, which have well-established delivery challenges.

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For the reasons above, and particularly as the SDL assessment show that current volumes are adequate for environmental water delivery, NSWIC does not support any change to the SDL in the Gwydir.

NSW Murray

NSW Murray faces similar outcomes to Murrumbidgee, and our view is that these can be addressed via more targeted use of environmental water. The main barrier to improved environmental outcomes in the Murray is the inability to deliver overbank flows. Many programs have attempted to overcome this issue, although numerous issues have plagued the rollout. NSWIC proposes that community-supported constraints programs or co-designed environmental water delivery would be needed to address this issue.

NSWIC notes the MDBA has identified no significant change from increased water volumes in the NSW Murray (only one improved level of confidence for native vegetation) but suggests

three indicators in the SA Murray improve with further water recovery. Given the known constraints to delivering water to South Australia including the Barmah and Goulburn Chokes, this finding cannot be used as an excuse for upstream water recovery under the guise of delivering flows to South Australia.

Given the MDBA now acknowledges that "when the Basin Plan was developed, assumptions about high-flow rates and constraints relaxation were optimistic,[28] it is no longer appropriate to maintain assumptions that water from the upstream Murray, Murrumbidgee or indeed the Goulburn is the solution to South Australian river health and the Coorong, Lower Lakes and Murray Mouth. NSWIC contends the MDBA must look for local solutions to ongoing localised issues.

We also note that the MDBA believes the current SDL is likely to meet the requirements regardless.

Groundwater SDLs

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

NSWIC does not support any immediate change to the SDL. Our recommendations for the groundwater SDL in the Lower and Upper Namoi and Lower Gwydir are:

- No immediate change to the SDL in areas that do not meet an ESLT, noting that take is only 93% of the SDL in lower Gwydir, 67% in the upper Namoi and 86% in the lower Namoi.[29]
- MDBA to provide a three-to-five-year extension to the NSW DCCEEW to improve groundwater modelling. Improved modelling will inform credible, evidence-based decision making to any future changes. Modelling assumptions and resultant data should be ground-truthed though quarterly targeted stakeholder consultation between valley-based water user peak bodies and NSW-DCCEEW.

[28] 2026 Murray–Darling Basin Plan Review Discussion Paper, p27.
[29] Lower Gwydir Alluvium (GS24), Upper Namoi Alluvium (GS47), Lower Namoi Alluvium (GS29).

- Once groundwater modelling has been peer-reviewed and confidence in modelling is sound, MDBA to integrate findings to address recognised knowledge gaps. Further analysis of SDL units can then be completed, if required.
- MDBA to consult with NSW-DCCEEW to discuss alternative options to manage hotspots identified through groundwater modelling. This may include:
    - The use of 71T trading restrictions to improve groundwater recharge.
    - Other zone-specific trading rules that recognise the ecological characteristics of each zone and provide suitable management for the specific context.
    - When implemented, sufficient time should be given for alternative strategies to take effect and the impacts of this management change monitored.

NSWIC members Namoi Water and Gwydir Valley Irrigators Association (GVIA) have been working constructively with the NSW Government and the MDBA to better understand and address groundwater management and environmental outcome concerns. Given that no units breach the SDL, there is no immediate risk to these areas. Concerns and knowledge gaps should be resolved through regular intervals of targeted stakeholder consultation and direct discussions with licence holders in any hot spot areas. NSWIC does not support changing the SDL but encourages NSW to work with peak-bodies in the respective valleys to monitor the units.

NSWIC questions for SDL assessments

1. *Does the MDBA intend to reassess the SDLs aligned with 2026 water recovery figures?*

NSWIC notes that LoE 2 has made certain assumptions about future water recovery, despite the uncertainty surrounding these totals. NSWIC seeks clarity on whether the SDLs will be re-modelled again with water recovery, as of late-2026.

For example, if under the current 450GL tender, some water is purchased from the Barwon-Darling, this may impact the SDL assessment. How could this additional water be considered in the recommendations that the MDBA will make to government? There is a risk that water recovered between June 2024 and late-2026 will not be properly considered in the SDL assessments, unless another evaluation is conducted.

2. *Will the MDBA model what the impact of relaxing constraints would be?*

NSWIC notes that under no LoE modelling have constraints been relaxed, despite these being crucial for environmental water delivery. It would be useful to understand what the impact of relaxed constraints would be, under the current water recovery volumes. This would help to better understand how to approach SDL assessments and complementary measures. It may be that with relaxed constraints, SDL could be fully met with considerably less water than was envisioned in the first Basin Plan modelling.

3. *What does the MDBA mean by "pattern of flow" in the Barwon-Darling?*

The SDL assessment in the Barwon-Darling outlines "pattern of flow" as the issue, rather than "sufficiency of flow". NSWIC would like to see more detail on how patterns of flow are impacting ecosystem outcomes and what specifically would need to be addressed to improve outcomes. This could include, for example, consideration of when inadequate patterns are causing environmental issues and how can these be addressed without adding more water.

Recommendations

- NSWIC does not support lowering the SDL in Barwon-Darling, Murray, Murrumbidgee or Gwydir, noting that environmental issues in these valleys stem from issues unrelated to flow and ecological outcomes are all likely to be met regardless.
- In the coming months, the MDBA works closely with stakeholders in the SDL units that have been flagged as "at risk" to better understand issues and avoid further water recovery.
- Any losses incurred due to increased flows down the Upper Murrumbidgee should be offset by an environmental water holder and ensure no negative third-party impacts to water users downstream.
- NSWIC does not support changing any groundwater SDL but encourages NSW and the MDBA to work with peak-bodies in respective valleys to monitor these areas.

3. SDLAM shortfall and complementary measures

The Sustainable Diversion Limit Adjustment Mechanism cannot be addressed through further water recovery

NSWIC members are greatly concerned by the potential that further water recovery could be used to address the potential SDLAM shortfall. While the initial SDL targets have effectively been met, the consequences of not meeting SDLAM deadlines has not been fully addressed in the MDBA's Discussion Paper. SDLAM was explicitly designed to avoid additional water recovery, and any shortfall should not trigger a default return to buybacks. It is neither sustainable nor consistent with the intent of the Basin Plan to recover this volume from water users and their communities.

Addressing the shortfall

In responding to any shortfall, priority should be given to extending timeframes, rescoping or replacing projects, and ensuring that future measures are credible, deliverable and outcomes-focused. This should be complemented by greater use of non-infrastructure and operational measures to achieve environmental outcomes, rather than relying solely on volumetric offsets.

Critically, the focus must remain on achieving environmental outcomes, not simply meeting volumetric targets. This requires working in genuine partnership with local communities to develop practical, locally supported solutions, rather than being constrained by rigid adherence to existing SDLAM accounting methodologies.

It is a long-standing principle of NSWIC that the best approach to addressing a SDLAM shortfall is to move the focus away from the volumetric criteria of SDLAM, towards an approach that emphasises complementary measures.

Much as the MDBA 2016 Northern Basin Review found that "specific flow indicators (SFIs), show a lack of response to changes in the volume of water recovery" and that "reductions in water recovery targets could be made without material reductions in environmental benefits"[30] NSWIC believes that the SDL assessments are showing a similar dynamic. Given this, governments should be open to achieving environmental Basin Plan targets in ways that extend beyond flows.

To pursue more water recovery to make up for any SDLAM shortfall goes against the evidence presented in the Discussion Paper and would further damage community trust in governments

[30] NSW DPI | NSW SDL Adjustment Projects, Supply Measure, Northern Basin Review – NSW Synopsis.

(that have struggled to deliver SDLAM projects on time). The MDBA and Commonwealth Government must be open to adjusting the 2012 SDL estimates and instead invest money strategically into programs with clear environmental returns – not just pursue outdated water recovery targets regardless of costs.

It is also important to acknowledge that the failure to realise any water savings at Menindee Lakes is a major factor in the SDLAM shortfall.[31] Despite numerous proposals being floated, these projects have all fallen through. Most of the original assumptions in the Basin Plan had assumed large offsets could be realised by this project and a lack of progress has left a SDLAM deficit. This is not a commentary on any of the proposed Menindee programs; rather, it highlights the continued government inaction and inability to get these projects across the line. It is unfair to continue to punish water users and communities for these circumstances.

Complementary measures and constraints relaxation are critical requirements to improving Basin health

There are well known natural constraints in water ways and adjacent land precluding efficient watering and delivery of environmental water along the Murray-Darling Basin. Despite this, successive governments have so far made little progress on environmental water delivery onto floodplains via constraints relaxation programs, which has significantly reduced the potential environmental benefits of HEW. In these circumstances, further water recovery cannot be pursued given that constraints are already precluding the delivery of the original water recovered. Instead, it is critical to view the implementation of complementary measures and constraints projects as an indispensable part of Basin Plan delivery, and not just as an offset to ease economic pressure on irrigation dependent communities. This issue has highlighted over many years, including in recent reports by the Productivity Commission. In 2023 it stated that "some of the environmental benefits of this additional water (450) are also contingent on the delivery of constraints-easing projects – which are still 5–10 years from delivery."[32]

It is also clear from the MDBA Discussion Paper that delivering water to important environmental assets is crucial to maximise the use of held environmental water (HEW). The discussion paper notes that "only a small proportion of the water for the environment currently reaches floodplains" and that "significant challenges remain in getting water onto floodplains at frequencies that will support improved environmental outcomes."[33] Again,

[31] Senate Standing Committee on Environment and Communications | Water Amendment (Restoring Our Rivers) Bill 2023.
[32] Murray–Darling Basin Plan: Implementation review 2023 Inquiry report.
[33] MDBA | Basin Plan Review Discussion Paper.

these programs are an essential component of environmental water management, not a nice-to-have.

Community-supported and developed constraints programs must be prioritised

NSWIC views the delivery of community supported constraints programs as essential to deliver the Basin Plan. Countless issues have plagued previous constraints easement programs, including modelling issues, community opposition, stop-start delivery, funding challenges, inter-jurisdictional coordination problems, and liability concerns. The 2024 MDBA Constraints Relaxation Implementation Roadmap highlighted these challenges.[34]

In order for constraints programs to work, NSWIC's view is that they must be community-supported, undertaken through manageable projects, start with low-level inundation, require long time horizons (at least 10 years), and done in good faith. NSWIC believes that compulsory acquisition of land is not consistent with "good faith" negotiations.

NSWIC is supportive of removing the 80,000ML target at the South Australian border. Our view is that the Constraints Relaxation Implementation Roadmap is a step in the right direction and we support the MDBA working directly with communities to find workable solutions to environmental water delivery.

Targeted delivery of environmental water must also be utilised

Governments should also be open to innovative approaches for environmental watering. For example, programs like Restoring Murray Waterways Project have used existing supply channels and infrastructure to deliver e-water.[35] Other irrigation infrastructure operators like Coleambally Irrigation Co-operative Limited (CICL) have had comparable successes directly delivering environmental water.[36] Similar approaches could also be used with private infrastructure, assuming landholder support is obtained.

While each approach may be unique, targeted watering of environmental sites can often be more readily achieved without an insistence on overbank flows. With community buy-in, there may be easier and cheaper ways of delivering water onto floodplains. Local landholders understand the intricacies of local geography and may often be able to deliver water to environmental assets with existing pumps and channels. The Murray Darling Wetlands

[34] Constraints Relaxation Implementation Roadmap.
[35] Murray Irrigation, Restoring Murray Waterways.
[36] NSWIC | Guide to fixing the Basin Plan: Submission to the Productivity Commission Murray-Darling Basin Plan 10-Year Implementation Review.

Working Group has been working with landholders to deliver water to private wetlands for decades, showing the success of local collaboration.[37]

NSWIC members in the Murray have also expressed concern with overbank flows and the tendency for these to bring excess nitrogen and phosphorous from the off-river pools back into the channel. This again underscores the need to adopt local solutions that are suited to the unique issues in the area. Working with landholders to target water delivery may be a more practical and cost-effective solution to achieving environmental water delivery.

Move beyond volumetric targets for SDLAM projects

NSWIC has a policy position that "the methodology to account for the 605GL should be broadened beyond Stream Flow Indicators alone, to align with the Northern Toolkit methodology that does not rely on flow alone as an indicator of a healthy Basin."[38] Our preferred approach to addressing the SDLAM shortfall is to develop a package of complementary measures that can be delivered across the Basin. This program would complement existing HEW, seeking to maximise other environmental goals through investments in infrastructure, river management, pest control, and other targeted measures.

Under LoE 2, the MDBA has modelled the remaining SDLAM offsets as coming from more water recovery, but the environmental improvements from this additional water are negligible. In NSW, only two valleys saw any improvement from additional water (Murrumbidgee and Barwon-Darling) although NSWIC believes that similar improvements could be gained from other management changes (without the need for additional water).

NSWIC has shown that on aggregate, the SDL will have been met by the end of the Basin Plan and that the MDBA has not shown clear evidence that making up for the SDLAM shortfall with more water purchase would be beneficial to the environment in most areas. While the original Basin Plan models were the best estimate for the time, governments should be open to amending these targets and lowering targets if the evidence supports it.

It is time to look beyond these volumetric water targets and focus more on a range of programs that support agricultural productivity while delivering environmental outcomes. NSWIC has outlined a number of these programs in its "Beyond Buybacks" report.[39]

[37] Murray Darling Wetlands Working Group.
[38] NSWIC | Basin Plan Policy Position.
[39] NSWIC | Beyond Buybacks: Why we need more than just add water.

The MDBA should adopt an outcomes-focused management plan

In NSWIC's view, it is time to transition from a volumetric focused, water recovery plan to an outcomes-focused, management plan. As we have outlined, water recovery has been largely achieved, and additional environmental water is showing diminishing environmental returns.

An outcomes-focused Basin Plan would first seek to outline how best to use existing environmental water and then use integrated approaches to deliver it. Industry criticism of the Basin Plan has long been that is focuses too much on water volumes, while ignoring on-ground solutions that could deal with other degradation drivers.

A broader suite of measures should be considered, including infrastructure upgrades, pest management, constraint relaxation programs, land and water restoration, and improvements to water quality. These options should be presented across a range of budget scenarios to enable clear comparison of outcomes and identify where the greatest value for money can be achieved.

For reference, the original NBTK cost $180 million (roughly $225 million in today's dollars) and was attached 70GL in SDL offsets. The Toolkit has delivered management improvements and infrastructure upgrades, while constraints relaxation is still progressing. If the Commonwealth Government wishes to attach these measures to an offset number, it could deliver 355GL of offsets for just $1.14 billion.[40]

Water recovery does not achieve value for money

It is clear to NSWIC that the MDBA's own evidence is that additional environmental water is showing diminishing returns and that complementary measures now provide better value for money to address environmental outcomes in the Basin. The below programs are well-recognised and long overdue that would provide important environmental outcomes. While the costs below are only estimates, these programs would likely far outweigh further water purchase in terms of environmental benefits. This is especially so, given the cost of water purchase has almost quadrupled since the last buyback tenders more than a decade ago, from around $2200/ML to $6000-$9500/ML.[41]

[40] This assumes a 355GL SDLAM shortfall.
[41] NSWIC | Guide to fixing Basin Plan NSWIC.

Program	Description	Cost
National Carp Control Plan: Cyprinid herpesvirus 3 (CyHV-3).[42]	2–3-year program overseeing carp virus release. Includes establishing local teams, removing carp manually from hotspots, releasing virus and managing clean-up.	$190 million (2019) for Murray and Murrumbidgee only.
Fishways in the northern Basin.[43]	Provide a strategic, holistic, program re-establishing broad-scale river connectivity of over 3,242 km.	$70 million (2012).
NSW Diversion Screening Strategy.[44]	Installation of modern fish screens on irrigation pumps to prevent native fish decline.	$13 million (2021) for 19 pumps on Macquarie River.

Table 2. A list of possible programs that could be funded to contribute to environmental outcomes

The above programs are not necessarily NSWIC's preferred interventions but are rather included to demonstrate that many of these measures are not expensive and can have high estimated environmental returns. The NSW Diversion Screening Strategy outlines that by targeting the 111 largest-volume diversions, you could protect an estimated 8.8 million native fish, generating $1.5 billion in public benefits.[45] Given the limited utility additional environmental water has on SDL assessments and the high price of buybacks, NSWIC believes that complementary measures make both economic and environmental sense.

[42] Australian Government | The National Carp Control Plan.
[43] NSW DPI | Fishway options for weirs of the Northern Murray-Darling Basin.
[44] NSW Government | The New South Wales Diversion Screening Strategy.
[45] NSW Diversions Screening Strategy launched to keep native fish in rivers.

Recommendations

- No further water recovery to make up for any SDLAM shortfall.
- Remove the requirement to realise SDLAM offsets or amend the SDLAM methodology to include non-flow-based offsets.

4. Improving connectivity in the northern Basin

NSWIC is concerned by premise of connectivity in the northern Basin

NSWIC is concerned about the premise of connectivity in the northern Basin. There has been sustained focus on connectivity following the 2017–2019 drought and the fish mortality events at Menindee in 2019 and 2023. These events placed significant pressure on water management systems in NSW and prompted important scrutiny of both causes and responses. Notwithstanding the severity of conditions, critical human needs were maintained, including town water supplies, and environmental water held by the Commonwealth Environmental Water Holder (CEWH) contributed to flows supporting downstream ecosystems. These outcomes illustrate both the challenges of managing highly variable systems and the importance of coordinated adaptive management.

NSWIC acknowledges the intent of the NSW Government's Connectivity Program to improve environmental outcomes. However, stakeholders continue to seek greater clarity regarding the evidence base, expected ecological benefits, socio-economic implications, and the treatment of any impacts on water users. NSWIC's position is that environmental objectives are best advanced where outcomes are clearly specified and where a full suite of measures, beyond water recovery, is rigorously assessed for effectiveness and value. There also appears to be a divergence in perspectives between the MDBA and NSW on aspects of connectivity, particularly in relation to achievable outcomes. NSWIC supports the MDBA's recognition that the Basin is a working, developed system, and that future reform must operate within this reality.

In that context, it is important to acknowledge the inherent characteristics of northern Basin rivers, including their naturally variable and at times no-flow conditions, which limit the feasibility of maintaining continuous connectivity under all circumstances. Proposals to include objectives and outcomes in the Basin Plan that specifically support end-of-system connectivity in the northern Basin are not supported by NSWIC, as they would overreach beyond SDL requirements and imply constant flows even where these are impractical or

impossible. This is especially so given the ephemeral, intermittent and episodic nature of northern Basin river systems and the smaller dams in the north.

NSWIC also has reservations about the quality of some of the work released by NSW DCCEEW to date, particularly where it does not adequately acknowledge the role of factors beyond diversions. Climate is the main driver of connectivity outcomes, with dry periods longer than six months largely driven by weather patterns rather than extraction alone. Roughly speaking, the period from 1900 to 1950 was fairly dry, 1951 to 1990 was relatively wet, and the period since 1990 has again been dry.[46] NSW modelling excludes HEW from its model, which gives an incomplete picture of the water balance. For example, during the 2017–2019 drought, the CEWH connected 47,589 km of waterways from 2017 to 2020, though this contribution to connectivity is absent from the models.[47]

NSWIC has several concerns about the proposed options for improving connectivity in the northern Basin. These proposals overreach beyond the SDL, do not reflect the realities of the northern system and do not consider the impacts of the 450 GL recovery in the north. Connectivity is also already embedded in at least 51 policies, programs and laws across NSW.[48]

The NSW Connectivity work on economic impacts is incomplete, failing to include the cost of compensation to users (including the CEWH), impacts to assets (land and water), revenue implications for WaterNSW, and uses economic models irrelevant to northern systems. The purported environmental benefits are based entirely on estimates by a small panel and even so are considerable small. Finally, the economic improvements are based upon highly uncertain "willingness to pay" studies that overestimate benefits and are not in keeping with most regulatory impact statements (RIS).

NSWIC supports further work by the MDBA to scrutinise connectivity proposals in NSW, including independent validation of underlying assumptions, modelling and projected impacts. We note that MDBA assessments of northern Basin connectivity do not suggest issues with current water volumes. Given the MDBA's advisory role to the Commonwealth on potential programs of work and associated funding, recommendations should be underpinned by a high degree of analytical confidence and transparency.

NSWIC supports an approach that moves slowly, takes stock of changes made to date and outlines a clear case through robust cost-benefit analysis. There should be recognition that

[46] NSW Department of Planning, Industry and Environment | Cease-to-flow and low-flow events in the Barwon–Darling River.
[47] Commonwealth Environmental Water Holder | River Flows and Connectivity, Evaluation against the strategy, Longitudinal Connectivity.
[48] Badu Advisory | Stocktake and options for improving connectivity in the northern Murray-Darling Basin.

significant reforms have already been implemented and that NSW is in a strong position to manage critical ecological health during dry periods. At the time of writing, NSWIC and its member organisations are also preparing submissions to NSW DCCEEW on the Connectivity Program. NSWIC will provide a supplementary submission to the MDBA once that NSW submission has been finalised, to ensure consistency and completeness across both processes.

Northern Basin reforms

As noted earlier, there have also been considerable reforms in the Barwon-Darling in recent years. The changes made to first flush rules, raising A-Class licence pumping levels and adding Individual Daily Extraction Components (IDEC) will reduce the frequency of short (less than one-month) low-flow events by 11% and the frequency of short (less than one-month) no-flow events by 36% on average across Bourke, Brewarrina and Wilcannia gauges over the long term.[49]

These has also been a recent proposal by NSW-DCCEEW to further raise the floodplain harvesting (FPH) trigger at Menindee (although at the time of writing it has not been implemented).[50] As shown in Table 3, raising the FPH trigger to 195GL active has noticeable impacts to supplementary take in upstream valleys. These changes will be absent from MDBA modelling but must be incorporated in further work undertaken by the MDBA before their recommendations are finalised.

195 GL trigger based on Pamamaroo, Wetherell and Tandure lakes not including inactive storage	• Border: 6.1% • Gwydir: 3.8% • Namoi: 3.7% • Macquarie: 0.2% • Barwon–Darling: 2.8% • Average: 3.3%. No significant change for general security licences in the NSW Murray.	• Border: 43% • Gwydir: 19% • Namoi: 56% • Macquarie: 10% • Barwon–Darling: 61%.

Table 3. Average and maximum annual impacts on supplementary licences, and B Class and C Class licences from the proposed Menindee triggers. Note: NSWIC could not find modelled impacts on FPH for the proposed changed triggers.[51]

[49] NSW DCCEEW | Western Regional Water Strategy, Attachment 3: Additional analysis on the Menindee trigger options.
[50] NSW DCCEEW | 2026 water sharing plans omnibus amendment order.
[51] NSW DCCEEW | Western Regional Water Strategy, Attachment 3: Additional analysis on the Menindee trigger options.

Two further rules-based changes must also be incorporated into the MDBA modelling. FPH has also been now licenced, returning more than 100GL to the environment.[52] There have also been changes to unregulated water sharing plans in the Macquarie, Namoi and Gwydir, which will add more environment flows into the northern Basin.[53] These are all on top of the nearly 320GL already delivered in the northern Basin as part of the Basin Plan. While these changes do not equate directly to additional HEW, they do result in more water left in the system which is of benefit to the environment. Just as accreditation of WRPs relies on no negative impact to PEW, any positive impact on PEW or system water must be accounted for and recognised.

NSWIC urges caution on advancing any connectivity proposals, given concerns around its assumptions, intent and the uncertainty of the work done by NSW so far. The fundamental goal has yet to be clearly defined, and we have considerable problems with the quality of the work conducted by NSW. NSWIC views that the current ESLT is adequate for the northern Basin and that additional water recovery is unnecessary.

Recommendations

- No more additional water recovery is supported for northern connectivity, as SDL assessments show that current water volumes are sufficient.
- MDBA to scrutinise and cross-check work done by NSW in its Northern Basin Connectivity Program, to ensure an accurate and complete cost-benefit of proposed changes.
- No changes to northern Basin SDL until a proper review and cost-benefit analysis has been conducted by the MDBA and all other non-flow options have been exhausted.

5. Maximising the benefits of water for the environment

NSWIC has long advocated for a shift in focus beyond just adding more water. Overallocation of water has been addressed through decades of water reform and recovery and the MDBA has confidence in the current SDL and compliance framework. The initial SDL assessment conducted by the MDBA appears to back up this stance, with most environmental issues stemming from non-flow-based issues. The next phase of the Basin Plan represents a key opportunity to take a more coordinated approach to water management that focuses on environmental outcomes more broadly.

[52] NSWIC | Floodplain harvesting is now regulated.
[53] NSW DCCEEW | Proposed revised access rules for water sharing plans.

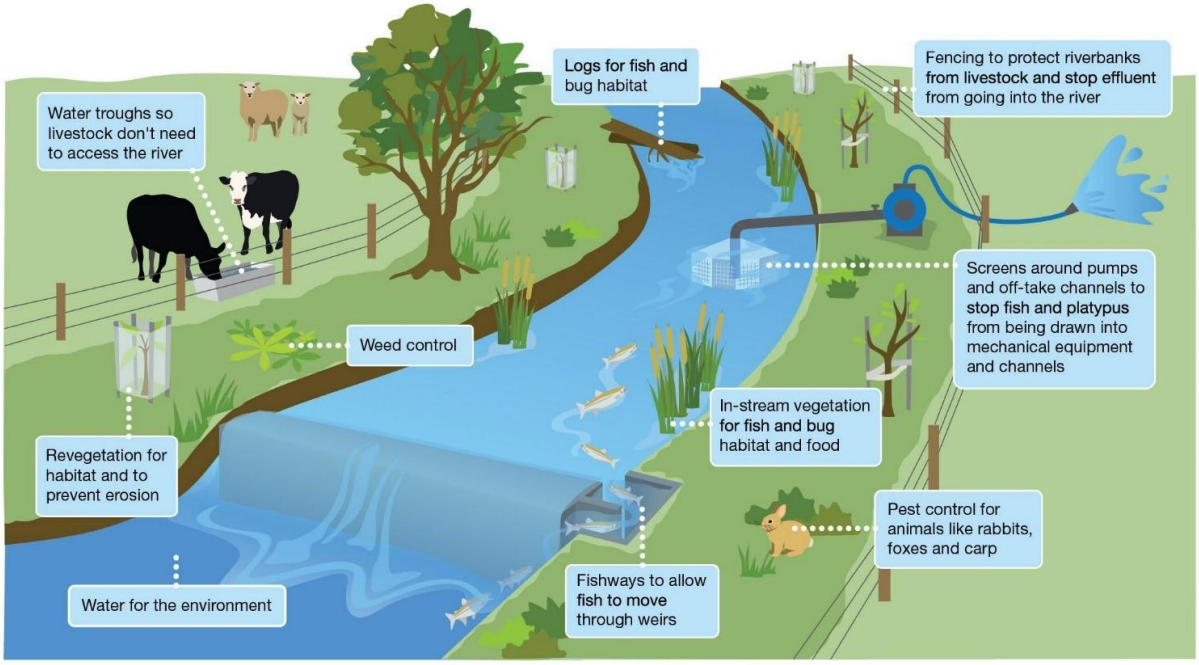

Image 1. Illustration of integrated catchment management.[54]

There are countless interventions that could deliver environmental outcomes through investment in complementary measures, many of which have been outlined in the Discussion Paper. In 2023, NSWIC produced its own report "Beyond Buybacks: Why we need more than just add water", which makes the case for complementary measures.[55] Our document "Working-together: A Call to action. How our irrigation industries, communities and the environment are working together" likewise supports grassroots cooperation as the best approach for achieving lasting environmental improvements.[56]

Recommendations

- Include a list of potential complementary measures, their anticipated environmental benefits and approximate costs

[54] Victorian Environmental Water Holder.
[55] NSWIC | Beyond Buybacks: Why we need more than just add water.
[56] NSWIC | Working-together A call to action. How our irrigation industries, communities, and the environment are working together.

6. Improving floodplain and wetland health

Ensuring connectivity between rivers and surrounding floodplains and wetlands is crucial to maximising the use of existing environmental water. NSWIC advocates constraints programs being delivered with community support with an emphasis on incorporating local knowledge. Approaches that allow for community input into program design rather than taking a prescriptive approach to environmental water delivery will have a higher likelihood of success.

More than 80% of wetlands in NSW are on private land.[57] The often top-down approach taken by previous constraints programs has led to a trust deficit between communities and government. State governments may have more success being open to different methods of water delivery, and not necessarily always focusing on overbank flows. While considerable investment has gone into constraints relaxation, in areas where this is difficult, it may be more cost-effective to undertake targeted watering of wetlands or environmental assets, using existing private infrastructure.

Recommendations

- Prioritise community-supported constraints programs, with local knowledge built into program design.
- Advocate for targeted watering of wetlands or environmental assets where that is more cost-effective or more widely supported than overbank flows.

7. Responding to native fish decline

It is clear from recent MDBA assessments like the Sustainable Rivers Audit (SRA) that considerable work needs to be done to address native fish decline. Most of the interventions that support native fish can be done without negative impacts on the availability of consumptive water. Each valley will have specific needs and programs, but with targeted and coordinated programs, there are a number of steps that can be done to improve native fish decline. These include fish ladders, managing cold water pollution, pest control, riparian restoration, adding fish screens on water pumps and most importantly, addressing invasive species. European carp make up 70-90% of biomass in some parts of the Basin and are a leading degradation driver.[58]

[57] NSW Government, Department of Environment and Heritage, Water for wetlands on private property.
[58] MDBA | Fishes of the Murray-Darling Basin, Carp.

NSWIC has outlined some of these programs in the section "Achieving value for money", above. As part of the MDBA's work in 2026, it would be helpful to include a list of potential programs, their anticipated benefit and approximate costs. As part of this, there is a need to address infrastructure at Menindee, with fish often getting stuck between the main weir and weir 32. The NSWIC Menindee Review submission expands on this point.

Recommendations

- Advocate for more investment in modern, fish-friendly infrastructure such as fish ladders, fish screens and cold-water pollution measures.
- Provide assessments and costings for priority fish-friendly infrastructure projects.
- European carp should be elevated as the number one degradation driver requiring urgent and immediate action.

8. Managing water quality

NSWIC is supportive of improving water quality, as long as the costs of mitigation are shared equitably. While there are issues with water quality in certain parts of the Basin, managing these risks is a shared responsibility and the costs of mitigation should not fall exclusively on irrigators. Water licence holders already contribute a substantial amount to government revenue for water quality monitoring and management, and NSWIC does not want to see users further financially burdened.

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

Recommendations

- Share the costs of water-quality mitigation equitably, rather than leaving them with irrigators.
- Use a holistic approach to water quality that includes targeted flows, riparian management, pest control and infrastructure improvements.

9. Water infrastructure and critical human water needs

Investment in water infrastructure is crucial for regional water security

NSWIC is supportive of more investment in water infrastructure, in order to shore up water security and improve environmental outcomes. In NSW, there has been considerable underinvestment in water infrastructure, as the pricing model in NSW has continually shifted more costs onto individual licence holders. Through the Independent Panel and Regulatory Tribunal (IPART) pricing determinations, the cost of paying for water infrastructure falls largely on irrigators. This "impactor pays" approach used has been unable to deliver affordable water service delivery and necessary investment in dams and weirs.

NSWIC would like to see the MDBA provide some assessments for priority infrastructure projects. While we support building more fish-friendly infrastructure (fish ladders, fish screens and cold-water pollution), we see these interventions as public goods that should be funded as such. It is clear from the Discussion Paper that there is a clear need for modernising much of the water infrastructure of the Basin and NSWIC supports investment in this crucial area.

Recommendations

- Provide assessments and costings for priority infrastructure projects.

10. Basin Plan regulatory design

Simplify water resources plans and rollout of programs

The accreditation of water resources plans (WRP) should be simplified in the next iteration of the Basin Plan. Several WRPs in NSW remain unaccredited despite several years of iterative attempts. Reasons for the delay include failure to receive support from relevant Aboriginal groups and misalignment between NSW and the MDBA regarding definitions. In particular, the definition of PEW in NSW has still not been fully resolved. Consistent with our submission in 2023, NSWIC recommends that NSW undergo the same due process, and assessment standards, as the MDBA required of other Basin States to identify PEW (Commonwealth).[59]

[59] NSWIC | Guide to fixing the Basin Plan: Submission to the Productivity Commission Murray-Darling Basin Plan 10-Year Implementation Review.

The MDBA and Basin states must also find a more effective way of delivering SDLAM projects if this program is continued (or the Northern Basin Toolkit). As part of the Basin Plan review, NSWIC supports re-examining the failures in program rollouts in order to ensure more timely and cost-effective delivery. Two clear examples of this are the Wilcannia Weir upgrade and the Yanco Creek Offtake project – both of which have had considerable delays in implementation.

It is also critical to recognise the findings of the Inspector-General of Water Compliance in its April 2026 report into the Northern Basin Toolkit (NBTL).[60] The report identifies significant shortcomings in the design and delivery of measures intended to achieve environmental outcomes. The consequence is a very real fear in the irrigation community, based on lived experience, that water users will once again bear the cost and public scrutiny of government's failure to achieve projects, despite the substantial public funding committed to them.

Recommendations

- Simplify accreditation of water resource plans in the next iteration of the Basin Plan.
- Ensure NSW undergoes the same due process and assessment standards as other Basin states in relation to Commonwealth PEW.
- Find a more effective way of delivering SDLAM projects if the program is continued.
- Re-examine failures in program rollouts to ensure more timely and cost-effective delivery of complementary measures and related programs.

11. Improving science and knowledge to inform Basin water management

Importance of agriculture

NSWIC would like to see more explicit goals for the irrigated agriculture sector in this section of the Discussion Paper. Much has been made of the Basin being a "productive" and "working" environment, acknowledging that agriculture is an indispensable part of Basin Plan. Its importance in national and global food security should not be understated and the MDBA should not ignore the needs of agriculture in the knowledge base of the Basin.

[60] Inspector-General of Water Compliance | Northern Basin Toolkit Inquiry Report.

Recommendations

- Re-affirm the central role that irrigated agriculture plays in regional economies and food security and provide investment in its future.

12. Climate change

NSWIC accepts the MDBA's recommendation to not change the SDL due to climate projections. The current annual water determination (AWD) process is capable of responding to drier periods in real time and respective governments now have considerable environmental water portfolios that can mitigate risks. NSWIC prefers the next ten-year period to be one of stability in water availability, and do not see imminent risks from climate change impacts (noting that projecting year-on-year variations in climatic conditions ten years forward is a practically impossible task).

As noted by the MDBA, it can re-visit the SDL as part of the next ten-year review. NSWIC has also not read any documents from the MDBA indicating that the loss factors applied to water accounting are an issue and as such, we support keeping the SDL as is. It is also worth remembering that states have emergency powers that can be drawn on, should an extreme event occur in the next ten-year period.

States can also adjust AWD processes to consider climate change, should they choose to. NSW is currently undertaking its "Minimum inflows review" that will examine dam inflow assumptions and loss factors currently being used for water accounting. This review will incorporate future climate change projections and consider the needs of water users (including critical human water needs).

NSWIC acknowledges climate change as a risk to water security for irrigators, as outlined in our 2022 report "Climate change and water: irrigated agriculture on the frontline" but have faith in the current water management rules. Considerable improvements in water management have occurred since the 2012 Basin Plan was first instigated and the balance of water between consumptive and environmental use gives us a good buffer for dry periods.

Recommendations

- Maintain SDL at current level, noting that current management frameworks are capable of responding to variations in inflows.

13. Aboriginal water

NSWIC recognises and supports traditional and cultural uses of water by Aboriginal people and always engages constructively with Aboriginal water issues. We acknowledge that Aboriginal voices are being given more prominence in water policy debates and welcome Aboriginal opinions. Many communities in NSW with irrigated agriculture as a primary economic base also have a high proportion of the population identifying as Aboriginal. We therefore have a shared vision to see improved socio-economic outcomes for our communities.

Aboriginal water ownership and access

NSWIC's fundamental view is that any water recovered for Aboriginal people for economic, social and cultural purposes should not have a negative impact on any other licence holders. This means that water entitlements for economic purposes should be acquired from the existing consumptive pool and that there must be no new entitlements or forms of access created via rules changes.

The current Aboriginal Water Entitlements Program (AWEP) does not directly contradict NSWIC's stated policy. Licenced water in the Basin follows very strict criteria, including caps on use and measurement and compliance expectations and NSWIC believes that all water should maintain these characteristics.

Aboriginal water management and knowledge

As a stakeholder in water policy, Aboriginal people and groups deserve to contribute to water management and policy decisions. However, Aboriginal outcomes should be developed and delivered within existing management frameworks and in partnership with all stakeholders. Wherever possible, decisions should be made collaboratively, and consultation should take place under one roof.

Aboriginal knowledge should be used in water management whenever appropriate, but the views of all stakeholders in water governance should be considered on their merits. Aboriginal considerations are just one of many stakeholders and should not be elevated above others. Likewise, all stakeholder knowledge must be assessed on its own evidential merits, regardless of who provided it.

Trading rules and Cultural Heritage

NSWIC would also like to highlight concerns with the proposal to enable trade restrictions to protect Cultural Heritage.[61] While NSWIC has no stance against protecting Cultural Heritage, it should not impede water trade, as this is a vital component of productive water use.

For more, see NSWIC Aboriginal Water Policy.

Recommendations

- Ensure that water recovered for Aboriginal people for economic, social and cultural purposes should not have a negative impact on any other licence holders

14. Other considerations

Certainty is required for water users

Water reform has been ongoing since the late 1990s, with water users responding to consistent change and uncertainty through constant efficiency improvements in water use, crop breeds, and technology. The ongoing reform has fatigued many communities, and the constant changes are undermining confidence in investment into irrigated agriculture. The looming SDLAM deadline and shortfall is compounding these concerns. Given this, NSWIC is calling for the next phase of the Basin Plan to deliver clear, durable policy settings that support certainty for water users and market participants.

Through years of constant reform, especially at the NSW level, water management has shifted away from adaptive management and towards crisis management. Instead of learning, adjusting and improving policy over time, decision-making has become increasingly event driven. Events such as drought and regulatory exposure have triggered major responses, often under pressure, and the system has lurched into further reform, creating a feeling of constant unpredictability at a community and water user level.

NSWIC seeks assurances that water recovery will cease for a ten-year period for stability while governments review how the existing programs – water recovery and infrastructure solutions – have maximised environmental goals and allow for the process of adaptive management as opposed to constant reform. Many of the changes made will need the benefit of time to determine the policy's effectiveness.

Recommendations

- Next phase of Basin Plan ensures no more water recovery to allow for stability in investment in irrigated agriculture.

[61] MDBA | First Nations Discussion Paper snapshot.

Property rights in water must be protected

Water rights in NSW are underpinned by a system of clearly defined, tradeable water access entitlements established under the *Water Act 2007* (Cth), the Basin Plan 2012 and state-based frameworks such as the *Water Management Act 2000* (NSW). These instruments collectively recognise water access licences as statutory property rights, premised on providing secure, exclusive, and transferable rights that have been designed to support efficient allocation, investment certainty and long-term productivity.

The integrity of this framework has been central to the development of a functioning water market across the Basin that is coveted worldwide for its allocative efficiency. It was also a critical foundation of the National Water Initiative 2004. Any erosion of these characteristics, whether through unanticipated rules changes, reductions in reliability, or uncompensated reallocation, risks undermining the legal and economic foundations on which the Basin Plan, and the thousands of Basin farm businesses, depend. It also further destabilises the water market, farm productivity, and the communities supported by irrigated agriculture.

Recent policy developments in NSW, including expanded use of rules-based changes and environmental delivery mechanisms, have heightened concerns regarding sovereign risk and regulatory overreach. Changes to commence to pump triggers in unregulated water sharing plans in northern NSW, the NSW Northern Basin Connectivity Program, changes made to protect inflows by raising the FPH trigger at Menindee Lakes, changes to the volumetric trigger through the recent s.324 temporary water restrictions, and proposals to change allocations through minimum inflows, have or would all impact reliability and allocations for water users in NSW.

These policy changes having been progressing at haste with scant regard to Section 87AA of the NSW Water Management Act which states compensation is payable for reductions in water allocations resulting from changes in (State) government policy.

To avoid falling foul of a similar clause at Section 83 of the Water Act 2007 (Cth), the Federal Government continues to pursue water recovery through buyback (compensation) programs associated with the 450GL and Bridging the Gap policies – yet are not considering the cumulative impact of policy changes plus buyback.

Accordingly, the next phase of Basin Plan implementation must continue to reiterate a clear principle: environmental outcomes must be pursued in a manner that preserves the integrity of water property rights. This requires transparent, rules-based processes for any changes affecting entitlement reliability; robust impact assessment, including cumulative effects; and where impacts are material, the provision of transparent and just compensation or adjustment

pathways. Protecting property rights is a prerequisite for maintaining market confidence, enabling efficient reallocation, and ensuring that Basin reform remains both economically sustainable and legally durable.

It is incumbent on the MDBA to unequivocally reaffirm the longstanding position in the Murray-Darling Basin Plan 2012 that "no water entitlements will be eroded or compulsorily acquired as a result of the Basin Plan." The stability and security of water property rights are foundational to food and fibre production, capital investment and the effective functioning of water markets. NSWIC is increasingly concerned that recent rules-based changes in NSW are materially reducing allocation reliability without commensurate compensation, despite effectively compulsorily acquiring the value of water entitlements.

This trajectory is undermining confidence in the entitlement framework and public policy processes. The stability and security of water property rights are foundational to food and fibre production, capital investment and the effective functioning of water markets. NSWIC is increasingly concerned that recent rules-based changes in NSW are materially reducing allocation reliability without commensurate compensation, despite effectively compulsorily acquiring the value of water entitlements. This trajectory is undermining confidence in the entitlement framework and public policy processes.

The MDBA should therefore reinforce and operationalise the commitment in Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin 2013 (section 2.2), that "no water entitlements will be eroded or compulsorily acquired as a result of the Basin Plan by embedding clear safeguards against such acquisition.[62] At a minimum, this should include transparent assessment of any policy that affects entitlement reliability (including cumulative impacts), and mandatory, transparent and timely compensation or adjustment pathways where impacts are material. This reaffirmation should be supported by enforceable mechanisms that ensure environmental objectives are not pursued at the expense of the integrity of statutory water rights.

Recommendations

- MDBA should reinforce and operationalise the commitment in Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin 2013

[62] Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin, June 2013.

Economic impacts of Basin Plan

NSWIC remains frustrated with the lack of serious acknowledgement of the economic impacts of the Basin Plan. While we recognise that there can be challenges demonstrating direct causality between water recovery and economic downturn, irrigation-dependent communities have clearly suffered from a loss in the productive use of water. The MDBA's use of Basin-wide statistics that focus on the gross value of irrigated agriculture tend to mask localised impacts and impacts to profitability.

For one, MDBA publications focus on the total value of irrigated agriculture, without considering farm profitability or potential farm closures due to high water prices. A focus on gross value ignores that the cost of farm inputs has increased significantly in recent years and squeezed many producers. As Ricardo noted in a recent report, "GVP (gross value of production) is a useful indicator of sector size and regional economic contribution; however, it is not a reliable measure of farm profitability or financial resilience."[63]

Ricardo states that "GVP is a measure of total output value, not financial performance. It captures the gross revenue generated by agriculture production - essentially price multiplied by quantity – it does not deduct production costs".[64] Focusing only on GVP gives no insight into profitability, margins or cash flow, as it ignores the impacts that rising input costs (water, fuel, fertiliser) have on net returns. The MDBA's approach simply aggregates all farming enterprises based on GVP but ignores the actual financial wellbeing of farming businesses and conceals impacts specific to more exposed valleys or commodities.

The high price of water on the temporary market has also made staple crops like dairy and rice vulnerable.[65] A recent Ricardo report, commissioned by Dairy Australia spelled out the devastating impact that more buybacks would have on the dairy industry. Under a worst-case scenario with further buybacks to make up for a SDLAM shortfall, dairy output will contract by up to 15%.[66] This report also did not include knock-on impacts from lost farm production. The dairy and rice industry support large processing facilities in the southern Basin, however, without reliable throughput and economies of scale, these facilities and the jobs and families they support are also vulnerable.

Finally, MDBA publications often use a Basin wide positive trend in terms of overall agricultural output as evidence that the impacts to agriculture have been minimal. This ignores

[63] Ricardo | IPART: 2025-26 review of WaterNSW's prices: Impacts of potential WaterNSW price increases on representative irrigation farms in regional NSW.
[64] Ibid.
[65] Australian Bureau of Agricultural and Resource Economics and Sciences | The impacts of further water recovery in the southern Murray-Darling Basin.
[66] Ricardo | Impact of water buyback on the SMDB Dairy Industry, Potential impacts for dairy farms, processors and suppliers.

consideration of a counterfactual where the Basin Plan was never implemented, in which economic output would have been considerably higher. A more rigorous assessment would use a medium-term baseline projecting growth without the Basin Plan, apply economic models that simulate "with and without Basin Plan" scenarios, and disaggregate by region, commodity, and irrigation type (rather than aggregating Basin-wide).

These findings are supported by the NSW Parliamentary inquiry into the *Restoring our Rivers Act 2003*

The findings of the NSW Parliamentary Inquiry into the Water Amendment (Restoring Our Rivers) Act 2023[67] reinforce a central proposition for the Basin Plan Review: environmental outcomes will not be secured through additional volumetric recovery alone, and further buybacks risk compounding socio-economic harm without guaranteeing ecological gain.

Evidence before the Committee consistently highlighted that water recovery to date has already imposed cumulative and uneven impacts on regional communities, including reduced productive capacity, employment contraction, and diminished service viability. These impacts are not transitional; they reflect structural adjustment in regions where water is the primary economic input. The implication for the MDBA is clear: environmental water has a natural cap, both in terms of achieving environmental outcomes and ensuring the viability of regional NSW.

The inquiry also exposed a more fundamental constraint at the core of the NSWIC submission: delivery failure has limited environmental outcomes under existing settings. Infrastructure and works programs intended to offset recovery have been materially underdelivered, while constraints on connectivity, timing and operational flexibility continue to impede effective use of held environmental water. This points to a policy misalignment focused on acquiring water rather than ensuring it can be used effectively.

The Committee's work further underscores the sovereign risk associated with rules-based changes that affect allocation reliability and entitlement value, which the compensation frameworks must adequately compensate for. Water rights in NSW are predicated on secure, tradeable rights, and constant uncertainty risks undermining investment signals, market confidence and long-term basin productivity.

[67] NSW Parliament, Committee on Investment, Industry and Regional Development, Impacts of the Water Amendment (Restoring Our Rivers) Act 2023 on NSW Regional Communities, April 2026.

The Committee has also found that it is not clear how much water in the Murray-Darling Basin has been recovered in NSW at a specific water source level, across all water sources in NSW. As the Committee highlighted:

> "Understanding how much water has been recovered is critical to assessing the effectiveness of water reforms. It is difficult to estimate total volumes of water recovered to date, although both levels of government undertake regular accounting.
>
> It is not clear that the NSW Government is accurately recording and communicating how protecting environmental water may impact water availability and reliability for water users such as irrigators."[68]

Assumptions of original Basin Plan should be re-considered

As part of the review, certain assumptions in the original Basin Plan should be re-considered, given that some outcomes "may not be feasible and need to change."[69] While the environmental watering targets and SDL assessments were based on the best available evidence at the time, we should not tie ourselves to these targets if they have since been demonstrated as unviable or unnecessary. Among these are assumptions around the SDL, constraints relaxation, environmental modelling and the feasibility of some downstream targets.

SDL assessments

An SDL recovery target of 2680GL was eventually finalised for the Basin Plan – inclusive of 605GL of SDLAM offsets. While considered to be the best estimate of an ESLT at the time, NSWIC believes the MDBA should not remain fixated on this number if more up-to-date assessments show the SDL can be met with less water. Indeed, the SDL assessments show that most environmental goals can be met under LoE 1 (which does not assume full SDLAM delivery). The Sustainable Rivers Audit likewise shows flow-based indicators as performing well under current arrangements.[70]

According to the SDL assessments, even if the SDLAM and 450 shortfalls remain unrecovered, there is little difference to the eventual environmental outcomes. NSWIC is of the view that ongoing water purchase is therefore unnecessary and that any unrecovered water at the end

[68] NSW Parliament, Committee on Investment, Industry and Regional Development, Impacts of the Water Amendment (Restoring Our Rivers) Act 2023 on NSW Regional Communities, April 2026.

[70] Murray-Darling Basin Authority | Sustainable Rivers Audit.

of the 2026 deadline should be abandoned. It is appropriate that the original SDL targets be revisited given that credible evidence demonstrates that equivalent environmental outcomes can be achieved with a lower volume of water than initially assumed.

Constraints relaxation

The complexity of constraints relaxation programs was not fully understood when the Basin Plan was first designed, as is acknowledged in the Constraints Relaxation Implementation Roadmap.[71] The original timelines and flow rates were unrealistic, which must now be acknowledged and incorporated into constraints programs going forward.

Governments should work with communities to focus on securing small flow corridors, working incrementally along the river to achieve maximum buy-in, delivery and recovery. This approach allows for sceptical landholders in adjacent areas to be slowly won over and for trust to be re-built between government and communities. Governments should also not fixate on overbank flows being the only way of delivering environmental water but also be open to ground-up solutions for watering important sites.

Environmental modelling and downstream targets

Given that many of the assumptions and goalposts of the 2012 Basin Plan have shifted, it would be beneficial for MDBA to remodel environmental water delivery

Experience since the Basin Plan was developed have shown that several original downstream targets, particularly in South Australia, have proven to be unattainable. It is clear that in the face of a changing climate and more up-to-date information, not all the targets for the Coorong, Lower Lakes and Murray Mouth (CLLMM) can be met. Environmental water has played an important role in supporting flows through the Murray Mouth, including during drought periods; however, maintaining an open mouth without complementary interventions (such as dredging) does not appear feasible.

In this context, NSWIC considers it necessary for the MDBA to lower its expectations for certain environmental outcomes, having regard to the constraints outlined above. The original Basin Plan modelling assumed that the SDL would enable the Murray Mouth to remain open 95 per cent of the time without dredging;[72] however, higher-than-anticipated rates of sand ingress have demonstrated that this assumption is not consistently achievable. Projected sea level rise is likely to further compound these challenges, increasing the risk of saline intrusion

[71] Constraints Relaxation Implementation Roadmap.
[72] Basin Plan (2012) Schedule 8.07.

and reinforcing the need for a more adaptive and evidence-based approach to downstream targets.[73]

Some of the modelling used for environmental water delivery has likewise proved unrealistic. The original Basin Plan modelling showed that in order for the additional 450GL to be properly utilised, an 80,000ML target was needed at the South Australian border (to reach the floodplain in SA).[74] The MDBA has since walked back from this target in its Constraints Roadmap. This suggests that this target will need to be re-assessed, as well as the justification and utility of this additional 450GL.

15. Next steps

NSWIC has four other requests for procedure for the Basin Plan review.

1) MDBA to work closely with SDL units identified as "at risk" to properly assess environmental outcomes and work with local stakeholders to manage any issues.

2) MDBA to release What We Heard report for the Basin Plan review before September 2026.

3) MDBA to commit to producing some interim or preliminary information to provide back to stakeholders in Q3 2026.

4) MDBA to conduct a public involvement opportunity in September 2026, for stakeholders to give feedback on preliminary findings.

NSWIC believes that it is important for MDBA to maintain its presence and engagement as much as possible through 2026. NSWIC and its members have been satisfied with the engagement from the MDBA in the Basin Plan review process so far and we hope to avoid a situation where final findings are laid down in late-2026, without a chance to give further feedback.

[73] The role of coastal processes in the management of the mouth of the River Murray, Australia: Present and future challenges.
[74] MDBA | Hydrologic modelling of the relaxation of operational constraints in the southern connected system: Methods and results, October 2012

16. Conclusion

It is time to shift the Basin Plan from a volumetric focused, water recovery plan to an outcomes-focused, management plan. The heavy lifting has been done on rebalancing consumptive and environmental water – at considerable cost to many regional and rural communities. While imperfect at times, the Basin Plan will have on net delivered on its core promise to meet the SDL water recovery target of 2680GL.

The challenge is no longer volume, but implementation and integration. By moving to an outcomes-focused management plan that respects the integrity of water rights, prioritises targeted complementary measures, and provides the policy certainty necessary for regional communities to thrive, we can secure the future of the Murray-Darling Basin for all its users - productive and environmental alike.

Irrigated agriculture in the Murray-Darling Basin is a global success story. It is a highly regulated, efficient, and resilient sector that is critical to national and global food security. By consolidating the environmental gains already made, governments can support a successful, sustainable irrigation industry that works in harmony with a healthy river system.

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