

# Murray-Darling Basin Plan

## Policy Position

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April 2024

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NSW Irrigators' Council  
Basin Plan Policy Portfolio



NEW SOUTH WALES  
IRRIGATORS'  
COUNCIL



## About us

### NSW Irrigators' Council

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigation farmers and irrigation communities in NSW. NSWIC has member organisations in every Murray-Darling Basin (MDB) valley of NSW, and several coastal valleys, representing the people holding more than 38,000 water access licences.

NSWIC is a leader in sustainable and productive water policy solutions, and advocates for and advises on best-practice water management. Our vision is the **secure**, **sustainable** and **productive** management of NSW water resources.

### Irrigated Agriculture

Irrigated agriculture provides more than 90% of Australia's fruit, nuts and grapes; more than 76% of vegetables; 100% of rice and more than 50% of dairy and sugar. The Gross Value of Irrigated Agriculture Production in NSW is \$3.53 billion a year on average<sup>1</sup>.

Australian farmers are globally recognised as the world's most water-use efficient, producing more crop per drop than any other nation. For example, Australian cotton is three times more water efficient than the global average<sup>2</sup>, and Australian rice uses 50% less water than the global average<sup>3</sup>.

Our farmers are leaders in environmental initiatives, including water efficiency, wildlife conservation, carbon management, biodiversity and habitat restoration.

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<sup>1</sup> <https://www.abs.gov.au/statistics/environment/environmental-management/water-account-australia>

<sup>2</sup> <https://www.agriculture.gov.au/ag-farm-food/crops/cotton>

<sup>3</sup> <https://www.agriculture.gov.au/ag-farm-food/crops/rice>

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# Introduction

The Murray-Darling Basin Plan (the Plan) is an ambitious environmental policy reform to set a Sustainable Diversion Limit (SDL) on water extraction and improve the ecological health of rivers, wetlands and floodplains.

The Plan was signed into law on 22 November 2012 with a target to reduce annual extraction by an average 2750 GL a year from the 2009 Baseline Diversion Limit (BDL). Extraction would be reduced primarily through buybacks from farmers, and water-saving projects. The Plan was to be implemented over 12 years to 30 June 2024<sup>4</sup>.

The Plan's SDL Adjustment Mechanism (SDLAM) allows flexibility around the benchmark 2750 GL water recovery target. The SDLAM enables the target to be reduced by 605 GL through 'supply' measures delivering equivalent or improved environmental outcomes.

In a last-minute political move, the Federal Government promised South Australia an additional 450 GL above the 2750 GL target to be recovered through water-efficiency projects. These projects were conditional on a socio-economic neutrality test to avoid negative third-party or water market impacts. Buybacks toward the 450 GL were excluded due to community impacts.

Water recovery began in 2008, while the Basin Plan was still being developed. Basin States were required to comply with the SDLs from 1 July 2019, recognising that some SDLAM 'supply' projects would not be fully delivered until 30 June 2024.

The Basin Plan continues to be highly controversial given its socioeconomic and water market impacts on communities and irrigated agriculture, and its narrow 'just add water' focus on reducing extraction without addressing major degradation drivers such as introduced species, cold water pollution, and system constraints.

## Progress

As of 30 September 2023, 2107.4 GL had been recovered<sup>5</sup>, over four Sydney Harbors in volume. This represents approximately one in five litres of water coming out of irrigation in just one decade, or one in three litres if the 875 GL of water recovered from pre-Basin Plan reforms is

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<sup>4</sup> In 2016, the recovery target was revised down from 2750 GL to 2680 GL after a review determined 70 GL less was required to be recovered in the northern Basin.

<sup>5</sup> [Progress on Murray-Darling Basin water recovery - DCCEEW](#)



included. This has reduced diversions for irrigation, town and industry from 35% of Basin annual average inflows to just 28%.<sup>6</sup>

SDL compliance is the Basin Plan's central purpose. Assuming the full 605 GL in SDLAM supply measures is delivered, SDLs have been met across the Basin since 2019, with many valleys recording chronic underuse below the SDLs<sup>7</sup>.

However, it was clear several SDLAM supply measures would not be completed by 30 June 2024, leaving an estimated 190-315 GL shortfall on the 605 GL target. This left farmers at risk of further water buybacks unless the Basin Plan was amended to extend the deadline and also allow new projects to be added to the mix where current projects proved unfeasible or fell short.

Only 26 GL of the 450 GL had been recovered or contracted by 30 September 2023. However, the 450 GL was not mandatory; rather, only a minimum 62GL was required to meet the 2750 GL benchmark target under the SDLAM formula.

## Water Amendment (Restoring our Rivers) Act 2023

A federal Labor Government was elected on 21 May 2022 with an election commitment to, among other things, to deliver the full 450 GL promised to South Australia in October 2012.

Consequently, the 2012 Murray-Darling Basin Plan was substantially rewritten with the passage of the Water Amendment (Restoring our Rivers) Act 2023 through Federal Parliament in late November 2023. Major changes include:

- Removal of the 1500 GL cap on water buybacks.
- Creation of an 'additional HEW' category specifically for 450 GL water recovery.
- Allowing buybacks for the first time to contribute to the 450 GL, as additional HEW.
- Additional HEW is excluded from 2018 socioeconomic impact neutrality test on efficiency projects counting towards the 450 GL.<sup>8</sup>

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<sup>6</sup> [1111-BPKId-water-resource-assessments-development-baseline.pdf \(mdba.gov.au\)](#); [26 November Sustainable Diversion Limit \(SDL\)s as at 1 ~ surface water.XLSX \(mdba.gov.au\)](#)

<sup>7</sup> Note from MDBA: While the total amount of water recovered across the Basin is higher than the overall 'Bridging the Gap' target of 2,075 GL/y, there remain some SDL resource units with local and shared water recovery targets that have not yet been met. This is why there remains some water recovery requirements in the figures above despite the fact that total recoveries Basin-wide exceed 2,075 GL/y.

<sup>8</sup> The Act requires only that the minister publish a report demonstrating how social and economic impacts have been considered before starting an additional HEW purchase program.

- Additional HEW can now be recovered from anywhere in the Basin, not just the southern Basin.
- Additional HEW is defined as a water access right, a water delivery right or an irrigation right, which limits water recovery to entitlements.<sup>9</sup>
- The Minister must take all reasonable steps to recover 450 GL by 31 December 2027 (deadline extended from 30 June 2024).
- Extended deadline for notified SDLAM 605GL supply measures to be operational from 30 June 2024 to 31 December 2026.
- Additional 605 GL supply measures can be notified by 30 June 2025 (previously only allowed measures notified by 30 June 2019).
- MDBA to determine the adjustments necessary with efficiency, supply and additional HEW contributions as they are expected to be on 31 December 2026.

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<sup>9</sup> A note to the relevant Basin Plan section 7.08b states such a specification may be revoked, amended or varied under says under subsection 33(3) of the Acts Interpretation Act 1901.

# NSWIC policy position

NSWIC supports the Basin Plan's policy objectives to set Sustainable Diversion Limits, improve environmental outcomes, and minimise adverse impacts on industry and communities.

Much has been learnt since water recovery began in 2008 about the socioeconomic and market impacts, and the opportunities and limitations of the Plan's narrow 'just add more water' focus.

While the 2107.4 GL recovered by 30 September 2023 has delivered significant environmental gains and boosted the environment's drought resilience, that has come at the expense of thousands of jobs lost in regional communities and reduced resilience among farmers, food and fibre processors and service industries to manage through drought themselves.

With extraction now reduced to 28% of total inflows, overallocation is no longer what is still making our rivers sick. Rather, the major degradation drivers are invasive species such as European carp, cold water pollution and system constraints, to name a few. Recovering even more water from farmers now will not fix these problems, nor deliver the Plan's desired environmental step change.

## **Policy principles on Basin Plan implementation**

- Protection of property rights of entitlements for all water users.
- No impacts on reliability, accessibility or yields.
- Water recovery by rule change is firmly opposed as it represents a fundamental shift from voluntary participation to compulsory acquisition.

Government should be clear that rules-based changes will not be supported unless NSWIC is genuinely supportive of the merits of the proposed changes.

- Bipartisan support for Murray-Darling Plan measures, to end politicisation of the reform.
- State and federal agencies genuinely and constructively engage with Basin farmers and communities.
- Water recovery is conditional on mitigating social and economic impacts now and in the future.
- Maximise environmental outcomes using the available water efficiently and effectively.
- Complementary measures are prioritised over water recovery to deliver Basin Plan objectives.

# Sustainable Diversion Limit Adjustment Mechanism (SDLAM)

## **SDLAM 605 GL ‘supply’ measures**

The SDLAM allows the Basin Plan’s benchmark recovery target of 2750GL to be reduced by up to 650 GL through environmental ‘supply’ measures in the southern Basin (also known as offsets, or ‘downwater’).

Basin States in 2019 notified the Murray-Darling Basin Authority of supply projects equating to an estimated 605 GL. The Water Amendment (Restoring our Rivers) Act 2023 extended the 30 June 2024 deadline for measures notified in 2019 to be operational, to 31 December 2026.

The Act also allows for additional supply measures to be notified by 30 June 2025. It has some flexibility to extend the operational deadline beyond 31 December 2026 for supply measures such as relaxing constraints, provided Basin States can demonstrate progress towards a reasonable deadline date. However, farmers remain at risk of further water buybacks to make up any shortfall.

### **SDLAM 605 GL policy position**

- Basin States will expedite the identification and notification of existing and new SDLAM supply measures by 30 June 2025.
- Basin States will implement projects delivering at least 605 GL in equivalent outcomes.
- SDLAM supply measures must be fit-for-purpose and locally supported.
- All affected stakeholders and communities must be effectively involved in development and delivery.
- Notification will account for progress by 31 December 2026, and a reasonable completion deadline beyond this date.
- The methodology to account for the 605GL will 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.



## **SDLAM 450 GL recovery measures**

The Water Amendment (Restoring our Rivers) Act 2023 allows for water entitlements yielding an additional annual average of 450 GL to be recovered from anywhere in the Basin (previously only the southern Basin). This water can be recovered through direct buybacks (termed ‘additional HEW’<sup>10</sup>), on- and off-farm efficiency projects, land and water packages, and operational rule changes.

Additional HEW is excluded from 2018 socioeconomic impact neutrality test, which still applies to efficiency projects counting towards the 450 GL. Efficiency projects in which water entitlements are transferred to Commonwealth ownership in return for funding, might include:

- Upgrading irrigation systems.
- Lining water delivery channels.
- Productivity gains leading to less water being used.
- Changes in water management practices.

The Minister must take all reasonable steps to recover 450 GL by 31 December 2027 (deadline extended from 30 June 2024). Section 7.08B in the amended Basin Plan specifies ‘additional HEW’ towards the 450 GL must be in entitlement and reduce the consumptive pool. It is open to interpretation whether a note to 7.08 allows the minister to revoke, amend or vary the specification that the 450 GL must be in entitlements and reduce the consumptive pool.

### **SDLAM 450 GL recovery policy position**

- The social and economic impacts of past, present and future water recovery must be comprehensively identified and addressed.
- Buybacks from farmers are unnecessary to deliver the 450 GL’s enhanced environmental outcomes.
- The Commonwealth must publish its strategy to avoid any Basin valley suffering disproportionate recovery from its consumptive pool.

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<sup>10</sup> Additional HEW is defined as a water access right, a water delivery right or an irrigation right, which limits water recovery to entitlements. A note to the relevant Basin Plan section 7.08b states such a specification may be revoked, amended or varied under subsection 33(3) of the Acts Interpretation Act 1901.

- Water recovery by rule change is firmly opposed as it represents a fundamental shift from voluntary participation to compulsory acquisition. Government should be clear that rules-based changes will not be supported unless NSWIC is genuinely supportive of the merits of the proposed changes.
- Water recovery is linked to progress on constraints management to ensure deliverability through the system.
- The additional HEW definition will be revoked, amended or varied according to the note to 7.08b of the Basin Plan, to include complementary measures where they can be demonstrated to contribute to the enhanced environmental outcomes.
- All water recovered towards the 450 GL is subject to the strategic socio-economic criteria agreed by the Murray-Darling Basin Ministerial Council in 2018.

## Constraints management

Constraints projects – the Reconnecting River Country Program in NSW – involves overcoming physical, policy or operational barriers limiting water flowing from rivers to wetlands and floodplain ecosystems.

The program is part of the SDLAM 605 GL supply projects package. The MDBA estimates the constraints program offsets the need for approximately 60 GL of water recovery<sup>11</sup>. Without constraints management, the environmental outcomes possible with the current 2107 GL of water recovery, much less another 450 GL, are severely limited.

The SDLAM constraints package in part requires an estimated 6000 NSW and Victorian landholders to enter voluntary flood easement agreements allowing environmental water holders to inundate their land. The intended level of inundation is below minor flood level.

The NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW, previously DPE) in 2022 announced no compulsory acquisitions of flood easements.

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<sup>11</sup> <https://www.dpie.nsw.gov.au/water/water-infrastructure-nsw/sdlam/reconnecting-river-country-program>

The Water Amendment (Restoring our Rivers) Act 2023 extended the deadline for supply measures to be operational from 30 June 2024 to 31 December 2026. Recognising that constraints relaxation, in particular, may take longer, the operational deadline may be extended provided Basin States can demonstrate progress towards a reasonable deadline date.

#### **Constraints management policy position**

- Basin States will expedite the notification of SDLAM 605 GL constraints management measures by 30 June 2025.
- Basin States will identify shortfalls in notified SDLAM constraints measures and notify new measures to make up the difference.
- Notification in 2025 will account for progress by 31 December 2026, and a reasonable completion deadline beyond this date.
- SDLAM constraints measures must be fit-for-purpose and locally supported.
- Directly affected landholders are in a position to make informed decisions. All agreements are voluntary.
- Constraints are managed solely to deliver environmental water and improve environmental outcomes, with environmental water holders bearing the full losses.
- Constraints are not managed to facilitate delivery of productive water downstream.
- Clear rules are developed in consultation with stakeholders to ensure no third-party impacts on entitlement reliability.

## **Northern Basin Toolkit**

The northern Basin is different to the southern Basin in terms of hydrology, agriculture, climate and socio-economic profile. Following a review into the Northern Basin, several projects (“toolkit measures”) were developed to reduce the northern Basin’s 390 GL water recovery target by 70GL down to 320GL. The Northern Basin Amendment to the Basin Plan was made on 3 July 2018.

The toolkit measures include strategic acquisition of remaining water recovery in the northern Basin, protection of environmental flows, addressing constraints in the Gwydir valley,

investigating options to support event-based environmental water delivery, improving the management and coordination of environmental water, and environmental works (such as to promote fish movement and habitat such as fishways and cold water pollution control).

An independent Northern Basin Commissioner was appointed in 2018 to improve governments' understanding of the river system in the Northern Basin. This position was then replaced by the Inspector General for the Murray–Darling Basin, with broader responsibilities.

#### **Northern Basin Toolkit policy position**

- Basin Governments will expedite the northern Basin toolkit for completion by 31 December 2026.
- Basin Governments to publish delivery strategy and progressive timeframes.
- Basin Governments to publish six-monthly progress reports on delivering toolkit measures.

## **Prerequisite Policy Measures (PPMs)**

Prerequisite Policy Measures (PPMs) are legislative and operational rule changes to how water recovered for the environment is delivered – i.e. to maximise the beneficial outcomes of HEW.

The Basin Plan assumed PPMs would be implemented in the southern Basin (PPMs apply only to HEW in the regulated Murray-Lower Darling and Murrumbidgee systems). NSW was required to implement PPMs in Water Sharing Plans by 1 July 2019. It is unclear whether and how PPMs may now be applied to the portion of the additional 450 GL recovered in the northern Basin.

The three key measures are:

1. Allow licensed environmental water to be used at multiple sites, in some cases involving re-crediting return flows.
2. The ability to piggyback or order held environmental water from a head water storage during a natural flow event.
3. Flexibility for environmental water holders to nominate the storage from which they want water to be delivered (applicable where head work storage is in series and not in parallel).

The NSW Environmental Water Holder and WaterNSW are both required to report annually on environmental watering that used PPMs. This can inform and improve future management of PPMs. Two annual reviews of PPM implementation in NSW have been completed.

#### **Prerequisite Policy Measures policy position**

- The implementation of PPMs should not impact on the yield and reliability of water entitlements and access or supplementary water.
- NSW Government management and reporting on PPMs to include evidence implementation has not reduced the yield, reliability or access to other water entitlement holders.
- The PPMs should not be extended to Planned Environmental Water unless as a supply measure that increases the SDL.

## **Chronic underuse**

Under the previous Cap accounting framework, large Cap credits accumulated in every NSW valley over 20 years. The Cap ‘credits’ were forfeited with the commencement of the Basin Plan’s SDL accounting from 1 July 2029. Nonetheless, even with the reset to zero, the underuse trend is appearing to persist in SDL accounting too, with credits accumulating in many valleys.

Chronic underuse is particularly evident in the NSW Murray valley. Since SDL accounting began, the NSW Murray has used 59%, 87.3% and 87.5% of its annual permitted take in 2019-20, 2020-21 and 2021-22 respectively. Over the three periods, the NSW Murray has already accumulated a 579.3 GL credit. That is, water users have used 579.3 GL less than they were entitled to. The Basin Plan has provisions to reduce water use when it exceeds SDLs. However, the Plan must also have provisions to address chronic underuse, to support use up to the SDL.

#### **Underuse policy position**

- If annual water use in a given valley exceeds its Sustainable Diversion Limit by more than 20 per cent, and in the absence of a reasonable excuse, Basin States must take make-good action to bring use down.
- A similar trigger is required when water use is below the SDL, requiring make-good action to ensure farmers over the long-term can use water up to their valley SDL.

## Over-recovery of water

The Basin Plan requires recovery of both a local volume and volume which is considered a shared contribution to downstream flows or connectivity. The shared recovery target in the northern Basin includes the Barwon-Darling, NSW Border Rivers, Intersecting Streams Gwydir, Macquarie-Castlereagh, and Namoi. In the southern Basin the lower Darling, NSW Murray and Murrumbidgee valleys contribute to the shared target.

Some valleys are under-recovered towards their valley targets. On 23 February 2023, the Federal Water Minister announced a buybacks program to 'Bridge the Gap' in Barwon Darling (1.6GL), Namoi (9.5GL), NSW Borders Rivers (5.1GL), Lachlan (0.9 GL) and NSW Murray (10 GL, towards the shared southern Basin target).

However, changes in calculation methods since the Basin Plan was signed in 2012 mean the final volumes will only be confirmed once all NSW Water Resources Plans are accredited. Further, given that these valleys are already meeting their SDLs, it is possible that the Basin Plan reconciliation now scheduled for 2026 could find that additional water recovery in these valleys was unnecessary and these valleys are now also over-recovered.

The MDBA determined as of 31 March 2019 that there was over-recovery of water in the Gwydir (5GL) and Macquarie-Castlereagh (38GL). However, changes in calculation methods since the Basin Plan was signed in 2012 mean the final volumes will only be confirmed once all NSW Water Resources Plans are accredited.

Nonetheless the Commonwealth has flagged it will count over-recovered water towards the 450 GL target, without consulting stakeholders in affected valleys on what should or could happen to that water. The rules around the use of over-recovered water also need to be discussed, such as whether it will remain in terminal systems such as the Macquarie and Gwydir to benefit their Ramsar-listed terminal or bypass the wetlands to be shepherded to South Australia.

### **Over-recovery policy position**

Over-recovered water must be returned to the consumptive pool in the affected valleys.



## Socioeconomic impacts

The socioeconomic impacts of water reform on Basin communities has been well documented in multiple reviews and reports by government departments, agencies and government-commissioned consultants<sup>12</sup>.

The Water Amendment (Restoring our Rivers) Act 2023 removed socioeconomic impact protections in the 2012 Basin Plan, including the 1500 GL cap on buybacks and enabling buybacks towards the 450 GL target for first time. Buybacks towards the 450 GL are not subject to the 2018 socioeconomic impacts test on efficiency projects; the minister need only demonstrate socioeconomic impacts have been considered before water purchases begin.

A recent NSWIC report found that recovering the additional 450 GL is the equivalent of 10.27% of the LTDLE of the total remaining entitlement in the consumptive pool across the southern connected systems, or 19.16% of the LTDLE of High Security/High Reliability Water Share (HS/HRWS) entitlement across the southern connected systems. For the NSW apportionment, recovering the NSW share (212.4 GL) of the additional 450 GL is the equivalent of recovering:

- 9.9% of total consumptive water in the NSW southern valleys, or 14.3% of total consumptive water in the NSW southern valleys below the Barmah Choke; or
- 43.9% of total HS consumptive water in the NSW southern valleys, or 45.4% of total HS consumptive water in the NSW southern valleys below the Barmah Choke;

### Socio-economic impacts policy position

- The use and management of Basin water resources must take into account social and economic matters relevant to Basin communities.
- The social and economic impacts of past, present and future water recovery must be comprehensively identified and addressed.
- Socio-economic impacts of Murray-Darling Basin reforms since 2008 must be mitigated, recognising that many impacts such as loss of population and services can take years to emerge after the initial loss of productive water.

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<sup>12</sup> See, for example, [2023-04-19-Jobs-impacts-socio-economic-report.pdf \(nswic.org.au\)](https://www.nswic.org.au/2023-04-19-Jobs-impacts-socio-economic-report.pdf);  
[Social and economic impacts of the Basin Plan in Victoria \(water.vic.gov.au\)](https://www.water.vic.gov.au/social-and-economic-impacts-of-the-basin-plan-in-victoria);

ABARES 2020 <https://www.agriculture.gov.au/abares/products/insights/economic-effects-of-water-recovery-in-murray-darling-basin>

## Complementary measures

Complementary measures address non-flow related issues to improve water quality or ecosystem health. Measures include introduced species control such as European carp, fish passageways, restoration of the riparian zone, feral animal control, erosion control and nutrient runoff into waterways.

Complementary measures are essential given many of the greatest challenges for the health of rivers, wetlands and floodplains cannot be addressed with more water alone. Complementary measures enable step changes in environmental health without the detrimental social and economic impacts of recovering more water from farmers.

### **Complementary measures policy position**

- Complementary measures are recognised as more effective than water recovery to fix degradation drivers.
- Complementary measures replace volumetric water recovery as the priority in the Murray-Darling Basin.
- The Minister will exercise the Water Act's discretion to amend or vary the additional HEW definition to include complementary measures such as fishways and cold-water mitigation.
- European carp are elevated as the number one degradation driver requiring urgent and immediate action.
- The water recovery budget is redirected to delivering complementary measures.