



## SUBMISSION

# Regional Water Strategies

May 2022



## NSW Irrigators' Council

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigation farmers and their communities 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 welcomes this opportunity to provide a submission. NSWIC sees this as a valuable opportunity to provide expertise from our membership to inform the response. Each member reserves the right to independent policy on issues that directly relate to their areas of operation, expertise or any other issues that they deem relevant.

## Irrigation Farming

Irrigation 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 (2018-19).

Irrigation farmers in Australia are recognised as world leaders in water efficiency. For example, according to the Australian Government Department of Agriculture, Water and the Environment:

*“Australian cotton growers are now recognised as the most water-use efficient in the world and three times more efficient than the global average”<sup>1</sup>*

*“The Australian rice industry leads the world in water use efficiency. From paddock to plate, Australian grown rice uses 50% less water than the global average.”<sup>2</sup>*

Our water management legislation prioritises all other users before agriculture (critical human needs, stock and domestic, and the environment with water to keep rivers flowing), meaning our industry only has water access when all other needs are satisfied. Our industry supports and respects this order of prioritisation. Many common crops we produce are annual/seasonal crops that can be grown in wet years, and not grown in dry periods, in tune with Australia's variable climate.

Irrigation farming in Australia is also subject to strict regulations to ensure sustainable and responsible water use. This includes all extractions being capped at a sustainable level, a hierarchy of water access priorities, and strict measurement requirements.

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<sup>1</sup> <https://www.agriculture.gov.au/ag-farm-food/crops/cotton>

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



## Executive Summary

- NSWIC has formally identified climate change as one of the greatest risks to water security for irrigated agriculture in NSW.
- The RWS must recognise that irrigated agriculture is a vital part of the state and national economy, a backbone for many communities in NSW, and a critical food and fibre supplier to Australia and beyond – and seek to meaningfully serve its water security.
- NSWIC has concerns with the climate scenario modelling used in the RWS, including the relevant planning horizon and how this may be used.
- Specifically, NSWIC has significant concerns regarding the usefulness of, and reliance on, RPC8.5 – a scenario generally agreed as ‘unlikely’ - as the foundation for consultation on appropriate climate response options in the RWS. RCP8.5 assumes (i) no global response to reducing emissions, (ii) 6.5 times the level of coal usage, and (iii) population growth continuing at the current rate – assumptions which all do not hold true.
- NSWIC recommends that the RWS appropriately considers a range of climate scenarios, including transparency of their likelihoods, in order to be best-practice and fit-for-purpose.
- NSWIC is of the position that the RWS has a role to communicate how water sharing arrangements already respond to climate variability and change, to prevent misunderstandings, ensure informed consultation, and contribute to improving water literacy.
- NSWIC recommend that the RWS should involve investigations into the trend of reduced water licence reliability, including the extent and drivers, and develop options which aim to protect and preferably restore the reliability of water licences.
- NSWIC seeks that RWS include cost assessments of options, including how much would be proposed to be passed onto water users. Consideration should be given to whether a reconsideration of cost-sharing approaches needs to be considered as climate change becomes more of an ‘impactor’ in terms of driving decision-making around expenditure.
- The RWS should include the immediate priorities for the region - particularly for the Murray and Murrumbidgee, the significant risks posed by the Basin Plan could completely further re-shape the water landscape for the region.

For specific valley/region-level feedback, we refer to the submissions of our member organisations<sup>3</sup> in their respective regions.

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<sup>3</sup> <https://www.nswic.org.au/members/>



## Background

The NSW Department of Planning and Environment (DPE) is preparing 12 Regional Water Strategies (RWS). These strategies aim to assist water management over the next 20-40 years by delivering five objectives:

1. Deliver and manage water for local communities
2. Enable economic prosperity
3. Recognise and protect Aboriginal water rights, interests and access to water
4. Protect and enhance the environment
5. Maintain affordability<sup>4</sup>

While RWS are non-statutory, they are likely to inform policy and planning instruments, potentially initiating review and amendment to existing Water Sharing Plans (WSP).<sup>5</sup>

NSWIC acutely recognise the significant impacts climate change is already having on water availability, as well as being aware that irrigators are the first water users to miss out when availability is limited. In fact, NSWIC has formally identified climate change as one of the greatest risks to irrigated agriculture in NSW.

Whilst this submission is provided within the context of the public exhibition of this latest tranche of draft RWS (including for the Murray, Murrumbidgee and South Coast regions), this submission is intended to provide a state-wide response relevant to RWS more broadly. This submission is in addition to earlier submissions provided by NSWIC on RWS.

## Submission

### RWS need to value and support irrigated agriculture

The NSW irrigation industry is a vital part of the state and national economy, a backbone for many communities in NSW, and a critical food and fibre supplier to Australia and beyond.

A recent report commissioned by the Natural Resources Access Regulator (NRAR) estimated irrigated agricultural production in NSW to be worth between \$3.1 – 4.4 billion per annum (or a five-year average of \$3.5 billion). The sector also provides vital flow-on economic benefits for regional economies worth an estimated further \$1.75 billion annually<sup>6</sup> - i.e. the report found that “*using an illustrative flow-on multiplier of 1.5 suggests that for GVIAP of \$3.5 billion, the total direct and flow-on impact from irrigated agricultural production alone (that is supported by water access entitlements across the state) would be \$5.25 billion*”.

NSWIC is concerned that the RWS to date have not gone far enough to recognise the importance of irrigation to the state and communities, nor present options that would meaningfully contribute to ensuring the long-term viability, security and productivity of irrigated agriculture in NSW. Whilst the emphasis on town water supply is strongly supported by NSWIC as critically important, and an area that notably requires attention in many parts of regional NSW, there has not been due consideration given to options for the water security of the industries upon which those same communities depend. In addition to the other water

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<sup>4</sup> [The relationship between regional water strategies, water sharing plans and water resource plans fact sheet \(nsw.gov.au\)](https://www.nsw.gov.au/nswic/relationship-between-regional-water-strategies-water-sharing-plans-and-water-resource-plans-fact-sheet) [page 1]

<sup>5</sup> [The relationship between regional water strategies, water sharing plans and water resource plans fact sheet \(nsw.gov.au\)](https://www.nsw.gov.au/nswic/relationship-between-regional-water-strategies-water-sharing-plans-and-water-resource-plans-fact-sheet) [page 2]

<sup>6</sup> [https://www.nrar.nsw.gov.au/news/report-values-nsw-water-access-licences-at-\\$29-billion](https://www.nrar.nsw.gov.au/news/report-values-nsw-water-access-licences-at-$29-billion)



users, NSWIC would like to see greater emphasis on options to maintain water security for agriculture.

The NSW government working to at least maintain, if not improve, water security for irrigation (within the agreed limits on water diversions – i.e. the SDLs) should be seen as a matter of importance beyond just the irrigation sector – given the significance to the broader economy, local communities and food/fibre supply.

NSWIC recommend that the NSW Government, in partnership with the irrigation industry, develop a long-term vision for the irrigated agriculture sector in NSW, and in turn, for that vision to be served by the RWS.

### ***Recommendation:***

*RWS to recognise the importance of irrigated agriculture, and include further consideration of options to support its long-term viability, security and productivity.*

*NSW Government to work with the irrigated agriculture industry to develop a long-term vision for the irrigation sector in NSW, and have that vision supported by the RWS.*

## Climate Scenario Modelling

NSWIC has concerns with the climate scenario modelling used in the RWS, including the relevant planning horizon and how this may be used.

Specifically, NSWIC has significant concerns regarding the usefulness of, and reliance on, RPC8.5 – a scenario generally agreed as ‘unlikely’ - as the foundation for consultation on appropriate climate response options in the RWS (particularly where the RWS planning horizon is 20-40 years (2040-2060), not 40-70 years (2060 to 2090)).

## **Background**

Water management is based on analysis of temperature, rainfall, and climate data recorded over the last 130 years. In addition to these historical records, development of RWS also considers paleoclimatic data (data reconstructed from before records began – retrieved from ice cores, tree rings, limestone deposits for example), as well as considering current climate change projections <sup>7</sup> NSWIC supports in-principle this multi-faceted approach to RWS development, recognising the value of understanding past and present data, alongside our best predictions for the future.

The RWS guide specifies that the DPE has developed regional climate predictions through NSW and Australian Regional Climate Modelling (NARCliM).<sup>8</sup> NARCliM projections are developed by ‘downscaling’ Global Climate Models (GCMs) to provide more detailed climate projections than GCMs provide alone.

Adapt NSW, provides further information on NARCliM projections.<sup>9</sup> NARCliM 1.0, released in 2014, was built from The World Climate Research Programme dataset in 2010 (CMIP3), the Intergovernmental Panel on Climate Change (IPCC) 2010 emissions scenario, and four climate models.

<sup>7</sup> [Regional water strategies—guide, September 2020 \(nsw.gov.au\)](#) [27]

<sup>8</sup> [Regional water strategies—guide, September 2020 \(nsw.gov.au\)](#) [28]

<sup>9</sup> [Other climate projections available for NSW | AdaptNSW](#)



As of 2020, NARCliM 1.0 has been replaced with NARCliM 1.5. According to Adapt NSW, NARCliM 1.5 has been built from:

- Three global climate models (ACCESS1.0, ACCESS1.3, CANESM2);
- 2014 CMIP5 dataset (5<sup>th</sup> assessment IPCC);
- IPCC's revised emissions scenarios (RPC4.5 and RCP8.5 – known as *representative concentration pathways*).

The *Representative Concentration Pathways* (RCP) emission scenarios are particularly significant here - referred to extensively in the three climate models and the Fifth Assessment Report by the IPCC. The RCP describe four different pathways of greenhouse gas (GHG) emissions and atmospheric concentrations, air pollutant emissions and land use, and projects each pathways' consequences:<sup>10</sup>

- RCP2.6 represents a best-case stringent mitigation scenario, characterised by immediate and collective global action toward climate change. RCP 2.6 predicts that by 2100 the global mean surface temperature could increase to 1.7 degrees Celsius.
- RCP4.5 and RCP6.0 represent intermediate emissions scenarios – following two probable courses of global climate mitigation. These predict that by 2100 global mean surface temperature could increase as much as 2.6 and 3.1 degrees Celsius respectively.
- RCP8.5 represents a very high, worst-case GHG emissions scenario assuming that no global response to climate change is taken. This model predicts that by 2100 global mean surface temperature could increase by as much as 4.8 degrees Celsius.

## Issue

NSWIC has been informed that RWS are being developed based on the RCP8.5 model alone.

A sole reliance on the RCP8.5 scenario in developing RWS is undesirable because:

- 1) Likelihood - The RCP8.5 scenario relied upon was not considered to be a likely scenario at the time of its development, and is considered to be even less so now (detailed below) - a further reliance on this alone is therefore not best practice.
- 2) Range of Scenarios - While preparing for an absolute worst-case scenario is reasonable, a range of scenarios and their respective likelihoods would be better practice for the purposes of the RWS. Basing the RWS on only a scenario generally agreed to be unlikely will not appropriately serve the purpose of the RWS, and likely have unnecessary undue impacts.
- 3) Planning Horizon - The appropriate climate change scenarios to be using in the RWS are those within the planning horizon of the RWS.

These reasons are explored further below.

NSWIC emphasises that we have no desire to undermine the legitimacy of climate change planning or minimise the current and future threat to water for all water users – in fact, if what we are experiencing now with 1.2 degrees global warming is any indication, then the prospect of RPC4.5 warming to 2 degrees by 2050 and a little higher at 2100 is alarming enough.

However, NSWIC has significant concerns regarding RPC8.5's usefulness as the foundation for consultation on appropriate climate response options in the RWSs, whose planning horizon is 20-40 years (2040-2060), not 40-70 years (2060 to 2090).

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<sup>10</sup> [AR5 Synthesis Report - Climate Change 2014 \(ipcc.ch\) \[57\]](http://AR5_Synthesis_Report - Climate Change 2014 (ipcc.ch) [57])



## Analysis

### (1) Likelihood & (2) Range of Scenarios

Academic literature following this modelling has indicated that while worst-case scenarios should be considered, this does not mean they be considered in isolation, and should not necessarily be deemed as being *likely*.<sup>11</sup>

RCP8.5 assumes (i) no global response to reducing emissions, (ii) 6.5 times the level of coal usage, and (iii) population growth continuing at the current rate.<sup>12</sup> However, contrary to those assumptions:

(i) In 2015, 195 nations signed the Paris Climate Agreement, requiring every country to submit plans on reducing emissions.<sup>13</sup> The EU has increased restrictions on industrial emissions.<sup>14</sup> China and India have significantly increased their reliance on renewable energy.<sup>15</sup> Since 2016, the rate of deforestation in Indonesia has more than halved.<sup>16</sup> While this response is by no means adequate, the worldwide policy response to emissions reduction currently underway has already surpassed the assumptions underpinning the RCP8.5 scenario.

(ii) In the academic literature, it is generally agreed that it is highly unlikely that global coal use will increase 6.5 times. In 2017, the World Energy Outlook (WEO) reported that global coal consumption had peaked in 2013 before beginning to decline, largely due to anti-pollution policies.<sup>17</sup>

(iii) Latest data has indicated that the rate of worldwide population growth has also slowed. At the time of the 2014 IPCC report the world population was increasing by 1.14% each year; the current rate sits at 1%.<sup>18</sup> This again challenges the assumptions underpinning RCP8.5.

A report summarizing the development process behind the RCPs was clear to highlight that exploring a high-end scenario is not irrelevant, but does not mean that the RCP8.5 is a likely scenario.<sup>19</sup> Van Vuuren, lead contributor of this report, has stated in 2019 that this scenario has become even less likely compared to 2008-2011 when it was initially developed.<sup>20</sup> Vuuren stresses that recognising this scenario can be useful, but for transparency, it should be indicated as the high-end scenario it represents.

NSWIC maintains that developing RWS with regard to historically reported information, extrapolated paleoclimatic data and globally recognised climate change projections is important. However, the reliance on this data, must reflect its feasibility, and this must be transparently explained. NSWIC is concerned that reliance on this scenario in the RWS could be used to inform changes to water management practices based on an absolute worst-case scenario deemed as relatively unlikely, which could unreasonably impacted irrigated agriculture.

<sup>11</sup> [The representative concentration pathways: an overview | SpringerLink](#)

<sup>12</sup> [Explainer: The high-emissions 'RCP8.5' global warming scenario \(carbonbrief.org\)](#)

<sup>13</sup> [The Paris Agreement | UNFCCC](#)

<sup>14</sup> [Q&A: Will the reformed EU Emissions Trading System raise carbon prices? - Carbon Brief](#)

<sup>15</sup> [Renewable Energy Surges Globally with China and India in the Lead - Union of Concerned Scientists \(ucsusa.org\)](#)

<sup>16</sup> <https://www.globalforestwatch.org/dashboards/country/IDN/?category=forest-change>

<sup>17</sup> [A Study of Long-Term Global Coal Demand \(treasury.qld.gov.au\)](#)

<sup>18</sup> [World Population Growth Rate 1950-2022 | MacroTrends](#)

<sup>19</sup> [The representative concentration pathways: an overview | SpringerLink](#)

<sup>20</sup> [Explainer: The high-emissions 'RCP8.5' global warming scenario \(carbonbrief.org\)](#)



### (3) Climate Planning Horizon

The appropriate climate change scenarios to be using in the RWS are those within the planning horizon of the RWS. It remains unclear whether the extreme climate change scenario presented is possible in the RWS' 20 to 40-year planning horizon (i.e., 2050), or what might occur in a 60 to 90-year horizon, (i.e., by 2100). This distinction matters.

Both the high RPC8.5 and moderate RPC4.5 scenarios reflect the current rate of emissions growth and global warming, and both indicate warming of about 2 degrees by 2050. This would suggest the worst-case climate change scenarios in the RWS should be those within the RWS planning horizon, i.e. what might be expected if the planet warms by 2 degrees.

If the RWS climate scenarios are based on RPC8.5 at 2090, not 2050, however, then this scenario is not fit for purpose as a guide to the worst-case scenario that is possible within the RWS planning 20 to 40 years planning horizon.

#### **Recommendation:**

- i) *The RWS appropriately considers a range of climate scenarios, including transparency of their likelihoods. The RWS should include the low (RPC2.6), moderate (RPC4.5) and high (RCP8.5) worst-case no policy response scenarios, plus the policy response outlooks, for context and easy comparison.*
- ii) *The RWS must be explicitly transparent that the global climate model relied upon in its development represents a worst-case, albeit unlikely scenario, and that its likelihood should be recognised in its utilisation.*
- iii) *The RWS should consider updating its models to the more refined SSP worst-case, no policy response series used in the most recent IPCC assessment reports.*
- iv) *Clarification is needed in the RWS whether the climate scenarios are based on RPC8.5 at 2050 or at 2100. The appropriate climate change scenarios to be using in the RWS are those within the planning horizon of the RWS.*

### RWS to explain how climate change is already factored in

NSWIC is concerned by a common public perception that (mistakenly) believes climate change is not already factored into water sharing. This presents a serious risk of unnecessary public concern, as well as a risk of additional measures which would exacerbate the impacts of climate change on water users beyond the already significant impacts.

NSWIC is of the position that the RWS has a role to communicate how water sharing arrangements respond to climate variability and change.

#### *Water allocations respond to climate variability and change*

The volume of water that water entitlement holders can access is determined through an Available Water Determination (AWD), or commonly known as a water allocation. Given water availability is variable, water allocations vary each year, based on the rules set out in the relevant WSP and based on the water available, and forecast to be available, in the water source.

This means that a water licence does not guarantee a fixed volume of water, but rather, it is a share of what water becomes available to that licence category up to the volume specified in



the licence. For example, whilst a farmer may have a 10ML water licence, a 30% allocation in a given year means they effectively can only take 3ML. If they have a 0% allocation, they cannot take any water and that licence is effectively ‘switched off’ in that season.

AWDs are based on factors including:

- Dam storage levels and how much water unused from previous years is carried over in public storages;
- The condition of the catchment and river system river (wet/dry) and forecast inflows;
- The estimated volume required to run the river, including end of system flows, transmission losses and evaporation losses; and,
- Other requirements, such as storage reserves and environmental water allowances.

AWDs are also based on a hierarchy or order of priority of water users, which is outlined in the *Water Management Act 2000* (NSW). Under normal circumstances, this means the needs of the environment (ie, water to ensure rivers run) are the highest priority, followed by basic landholder rights, town water supply and stock & domestic licences, and then high security water licences (typically for permanent plantings such as orchards or vineyards), and finally, last in line is lower security licences (which are typically used for annual crops like cotton or rice).

During extreme events, such as droughts, critical human water needs (i.e. town drinking water) becomes highest priority, then the needs of the environment, followed by stock, high-security licences, and still last in line (and only if any water is left over, which it typically is not) are the lower security licences like general-security.

The allocation process ensures that high priority water requirements for the next 24 months can be met (including carryover). This means State water managers must be confident enough water will be available to meet high priority needs ‘next year’ – including environmental needs prescribed by Water Sharing Plans; basic landholder rights and high priority licences (domestic and stock, town water supply); and, high security licences and water carried over in general security accounts – before further allocation to general security licences ‘this year’.

This system ensures that ‘high priorities’ needs are met first, before any **leftover water** (if any) gets allocated for ‘lower priority’ needs such as growing annual crops. The irrigation industry respects this hierarchy of priority, despite being at the bottom.

NSWIC also understands that the bulk access regime in the WSP takes account of the full climatic record available to DPE, including in determining the limits to the availability of water and the long term average annual extraction limit (LTAAEL), and the priorities according to which allocations must be adjusted if extraction limits are exceeded. NSWIC understands that this is based on modelling of inflows and extraction over the full climate record held by the Department up to the date of finalisation of the relevant hydrologic model, and that as further climate information becomes available during the term of the plan, the LTAAEL model (and LTAAEL) is updated.

This situation is not well understood by the general public, and it would be of value for the RWS to include more detailed explanations of these processes, and data on how this is already playing out (i.e. long-term declines on water entitlement reliability). NSWIC will shortly be publishing a report on this subject. Ensuring a common base-level of understanding of the status quo is critical to considering further options.



### *Chief Scientist Review*

NSWIC draws attention to the NSW Chief Scientist & Engineer review of the adequacy of water-related data collections and its capabilities from 2020.<sup>21</sup> Whilst this report recognised the well-established need to incorporate climate change in water resource planning,<sup>22</sup> it identified it as an area of science which is still developing, and that further work is required to continuously improve the methods. In particular, at that point in time, it was recommended that the method is not yet able to be used to underpin water planning/allocation decision making, as the levels of uncertainty are too great.

If, in future, there is a desire to use such methods for water planning/allocation decision making – clear demonstration would be required to ensure this finding is addressed, and that it is fit-for-purpose.

The report additionally recommends that all NSW water data, in its collection, processing and use is entirely transparent. *This transparency also encompasses the data sources, gaps and uncertainties used in models and business cases for plans and investment decisions.*<sup>23</sup> NSIWC supports this recommendation.

#### ***Recommendation:***

- i) *That the RWS clearly communicates existing mechanisms in current water sharing arrangements to manage water resources with consideration to climate change.*
- ii) *That the RWS includes analysis of how the above current water sharing arrangements are impacting water security for entitlement holders (i.e. in terms of entitlement reliability).*

### Protecting reliability and ensuring usage to SDLs

#### **Reliability**

There is now a definite and observable trend of a declining reliability of water entitlements (ie. a long-term trend of less water allocated to water licences). For example, our analysis shows irrigators in the NSW Murray were allocated, on average, 81% of their general-security licence volume before the Millennium Drought but now their licence reliability is only around 48%. Similarly in the Namoi valley in the northern Murray-Darling Basin, reliability has declined from 77% to around 39%.

Whilst climate (i.e. a definite observable trend of reduced inflows) is partly attributable, this is also the product of rule changes which cumulatively erode reliability.

There is currently missed opportunity for the RWS to involve investigations into the trend of reduced water licence reliability, including the extent and drivers, as well as options to address the trend. This is at the heart of water security for irrigated agriculture.

<sup>21</sup> [Water-Data-Review.pdf \(nsw.gov.au\)](#)

<sup>22</sup> [Water-Data-Review.pdf \(nsw.gov.au\)](#) [page 10]

<sup>23</sup> [Water-Data-Review.pdf \(nsw.gov.au\)](#) [page 2]



### **Recommendation:**

- i) The RWS should involve investigations into the trend of reduced water licence reliability, including the extent and drivers. This is a key part of data for both agricultural and environmental water entitlement holders, but also for water managers to understand these trends.
- ii) The RWS to develop options which aim to protect and preferably restore the reliability of water licences.
- iii) Options considered by the RWS must be the subject of a reliability impact assessment. This is in order to quantify any impact, and if so, attribute its drivers/causes, and compensate according to the risk assignment framework outlined in legislation (Sch 3A, Water Act 2007).

NSWIC holds the firm position that options presented in the RWS must not impact the yield / reliability of water entitlements.

### **Underusage**

NSWIC is concerned by reports which show a trend of underusage against SDLs. The MDBA report “Analysing trends in water use in the southern Murray-Darling Basin” found this to be in the order of 375GL/y<sup>24</sup> - specifically:

*“The seven year transition period showed a trend that use under the Cap on diversions was less than the Cap limits in a number of valleys, as surface water accounting ‘credits’ were accumulating. The same trend was also apparent in the trial sustainable diversion limit accounts”<sup>25</sup>*

Whilst “this is not surplus water available for redistribution”, it is a product of factors such as “state water allocation policies” which impacts whether use is above or below limits.<sup>26</sup> NSWIC recommend that NSW actions the recommendation by the MDBA for further work to break down the underuse volume further to identify its key components – a critical first step to addressing the issue.

NSWIC see scope for the RWS to consider options to ensure water users can, and are, using up to the SDLs. For example, optimising water usage in wetter years such as the current conditions.

### **Recommendation:**

- i) RWS to investigate options to stimulate usage up to the SDL in circumstances where usage is found to be significantly below the SDL.

<sup>24</sup> <https://www.mdba.gov.au/sites/default/files/pubs/trends-in-water-use-relative-to-the-sustainable-diversion-limit%28SDL%29-in-the-southern-murray-darling-basin-2020-full-report.pdf>

<sup>25</sup> <https://www.mdba.gov.au/sites/default/files/pubs/trends-in-water-use-relative-to-the-sustainable-diversion-limit%28SDL%29-in-the-southern-murray-darling-basin-2020-full-report.pdf>

<sup>26</sup> Ibid.



## RWS within broader policy context

The RWS are being developed within the context of a complex and multi-layered architecture of water planning and policy instruments in NSW and the Basin.

NSWIC is of the position that the RWS must be consistent with these other instruments (i.e. avoid duplication, inconsistencies, or contradictions). For example, NSWIC has concerns regarding the compatibility of some options with the Basin Plan (i.e. regarding PEW).

The RWS should explore the range of instruments already available to deal with the climatic extremes it seeks to address (to avoid duplication, and ensure shared understanding in the public consideration of options). For example, Water Sharing Plans, Extreme Events Policy, Incidence Response Guides, etc.

NSWIC is particularly concerned that the RWS go beyond their original remit in considering options to ‘rebalance’ water shares. It is not the role of one Basin states strategic planning instruments to subvert agreed multi-jurisdictional processes. The Basin Plan – as a complex, multi-billion dollar, multi-jurisdictional and federal-led process – was designed to achieve SDLs, and includes a formal review in 2026. That is the formal due-process as agreed by Basin-states, and written into legislation. NSW should remove any options from the RWS that subvert that process by seeking rebalancing between water users.

### ***Recommendation:***

- i) Ensure RWS are compatible with other regulatory instruments, such as the Basin Plan.
- ii) The RWS to identify the suite of existing instruments available to deal with climatic extremes, such as Water Sharing Plans, Extreme Events Policy, Incidence Response Guides, etc to ensure completeness.
- iii) The RWS to be considered within the context of the Basin Plan – recognising the existence of SDLs. NSWIC recommends any ‘re-balancing’ discussion to be left to the proper due-process – that is the Basin Plan Review in 2026.

## Cost assessment of options

NSWIC seeks that RWS include cost assessments of options, including how much would be proposed to be passed onto water users.

This is of concern to NSWIC due to the current IPART cost-share ratios falling heavily on water users (under the current ‘impactor-pays principle’). For details of exact cost-shares, see the IPART Rural Water Cost-share Review - Table 6.2 (P47) for WAMC customer shares and Table 6.3 (P51) for WNSW customer shares.<sup>27</sup>

The most recent IPART Pricing Determination resulted in significant price increases to water users, which is not a sustainable trend, particularly for an industry facing repeated impacts to water availability and thus productivity. NSWIC outlined in a submission to IPART that consideration needs to be given to whether ‘climate change’ should now be considered the ‘impactor’ rather than extractive water use, in order to more equitably distribute emerging higher costs of water management associated with shifting patterns of water availability.

<sup>27</sup> <https://www.ipart.nsw.gov.au/sites/default/files/documents/final-report-rural-water-cost-shares-february-2019.pdf>



At a Public Hearing (March 2021), IPART stated that it did consider climate change to be an impactor in the long term, but that we have not yet hit a ‘tipping point’ to which it requires factoring in. In a long-term strategic planning document such as the RWS which outlines a number of (often expensive) options, this factoring in process becomes highly relevant in looking into both total costs and ongoing cost-sharing arrangements.

***Recommendation:***

*The RWS should include cost assessments of options, including cost-sharing arrangements. The RWS should give consideration to IPART pricing principles, and whether a reconsideration of cost-sharing approaches needs to be considered as climate change becomes more of an ‘impactor’ in terms of driving decision-making around expenditure.*

Lack of attention to immediate priorities

For the Murray and Murrumbidgee RWS, NSWIC received feedback that the RWS did not address the immediate priorities for the water security of those valleys – for example, NSW obligations under Commonwealth instruments such as the Basin Plan. Shortfalls in NSW delivering on commitments such as SDLAM supply and constraints projects could result in significant amounts of water no longer being available to NSW / or to irrigated agriculture – with potential to completely reshape the water use landscape in these valleys.

Further, ongoing reforms such as those in response to the ACCC Water Market Inquiry recommendations, deliverability / choke work programs, and other ongoing reforms are relevant to the water security of these regions in NSW.

***Recommendation:***

*The RWS should include the immediate priorities for the region, particularly for the Murray and Murrumbidgee - the significant risks posed by the Basin Plan which could completely further re-shape the water landscape for the region.*

## Conclusion

NSWIC thanks DPE for the opportunity to provide a submission through this public exhibition. NSWIC is available to discuss the positions raised in this submission.

Kind regards,

NSW Irrigators' Council.