31 August 2026

Mr Geoff Leeper
Independent Reviewer
Statutory Review of the *Water Act 2007* (Cth)

Submitted online: https://consult.dcceew.gov.au/water-act-review

Dear Mr Leeper,

Discussion Paper – Statutory Review of the *Water Act 2007* (Cth)

As Commissioner for the River Murray – South Australia, I welcome the opportunity to provide comment on the current statutory review of the *Water Act 2007* (Cth) (**Water Act**). The observations contained herein are intended to supplement my detailed submission responding to the 2026 Basin Plan Review Discussion Paper (**Basin Plan Submission**), which, *inter alia*, contained legal analysis and recommendations regarding certain elements of the Water Act. These elements included water resource plans (**WRPs**); First Nations' water rights and the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (**UNDRIP**); water quality and critical human water needs (**CHWNs**); governance of the Commonwealth Environmental Water Holder (**CEWH**); and governance of hydrological models.

As I will provide further comment on the Water Act in response to your draft report, which is due to be published in November 2026, this submission will focus on a small number of high-level issues which underpin the Act's legality and inform discourse surrounding its operation and impact. However, before doing so, I would like to provide some brief contextual statements about water management in South Australia.

As the jurisdiction at the end of a large transboundary river system, South Australia is fundamentally vulnerable to upstream extractions. At various junctures it has sought to mitigate the risk associated with its downstream location by negotiating sensibly for its share of water under the Murray-Darling Basin Agreement (**Agreement**) and its predecessor agreements. These negotiations occurred over many decades and included concessions to upstream states. Notably, the five barrages located near the Murray Mouth were constructed to enable the development of Hume Dam following advice from the Murray-Darling Basin Commission that the dam would significantly increase salinity in South Australia.[1]

Crucially, South Australia has a long history of managing its water conservatively. While upstream diversions continued to expand,[2] South Australia introduced a cap on its own extractions in 1969 – some 27 years before the Basin-wide Cap was established under the Agreement.[3] This early intervention was designed to balance consumption with environmental protection, and that conservatism is reflected in

[1] Chris Guest, *Sharing the Water: One Hundred Years of River Murray Politics* (Murray-Darling Basin Authority, 2019), 78-79.

[2] Between 1969 and the introduction of the Basin-wide Cap on Diversions in 1997, diversions across the Basin (that is, in NSW, Victoria and Queensland) increased by around 3,500 GL per year. See: Murray-Darling Basin Authority, Guide to the proposed Basin Plan, Volume 1, 2010, 27, Figure 3-2.

[3] Government of South Australia Murraylands and Riverland Landscape Board, *Water Allocation Plan for the River Murray Prescribed Water Course* (Plan, 27 April 2023) 17.

South Australia's position today: permissible extractions under the Basin Plan for the entire South Australian Murray-Darling Basin amount to less than 6% of the Basin-wide extraction limit,[4] while its irrigators are recognised as being highly efficient. South Australia's Entitlement share under the Agreement is managed judiciously in accordance with the River Murray Water Allocation Plan:[5] of the 1,154 GL available for consumptive purposes, South Australia allocates only 830 GL – including 630 GL for irrigation – leaving 324 GL in the river for the Ramsar-listed Coorong, Lower Lakes and Murray Mouth (**CLLMM**).[6] Because South Australia's entitlement volumes sit well below those issued by other Basin states, full allocation for entitlement holders is reached at a much lower level of water availability than in other jurisdictions. As noted above, this is the product of an early policy decision to cap extractions in South Australia, an approach which could have been adopted by other states who instead chose to allow diversions to grow significantly between 1969 and 1997, when the Basin-wide Cap came into effect.[7]

While the introduction of a Basin-wide Cap was a critical development, it was not based on scientific evidence regarding riverine health and sustainable levels of extraction. The purpose of the Water Act, therefore, was to build upon the framework established under the Agreement and more specifically to address over-allocation of the Basin's water resources by mandating a scientifically informed environmentally sustainable level of take (**ESLT**). The Act's purpose is therefore self-evidently Basin-wide, directed at the health of the river system as a whole rather than the interests of any single state. Nevertheless, as the most downstream and hydrologically vulnerable jurisdiction, South Australia has a particular stake in the Act operating as intended, and it is with that perspective that I offer the following comments on its higher-level and contextual settings.

1. Foundational legal considerations

The Water Act's core purpose, given effect through sections 4 and 23, is to ensure that extractions within the MDB are limited to an ESLT. As I have set out in my Basin Plan Submission and numerous other publications, current Sustainable Diversion Limits (**SDLs**) do not reflect an ESLT even under historical climate conditions, let alone under future climate projections. To that end, nearly two decades after the Act's commencement, the task it was designed to complete remains unfinished.

The consequences of that unfinished business are no longer speculative. In January 2026, the River Murray downstream of the Darling River, and its associated aquatic and floodplain systems (**Lower Murray Listing**) – encompassing the CLLMM – was listed as a critically endangered ecological community under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).[8] The Approved Conservation Advice underpinning that listing identifies ongoing over-extraction and river regulation as key drivers of the community's decline.[9] This is not a system showing early warning signs of stress; it is a system that a Commonwealth statutory process has now formally determined to be at risk of ecological collapse. Any consideration of amendments to the Water Act, including to its purpose or objects, must be undertaken with this listing squarely in view. It represents an authoritative,

[4] South Australia's overall sustainable diversion limit (**SDL**) is 630 GL. The Basin-wide SDL is 10,945 GL.

[5] This forms part of South Australia's accredited River Murray WRP.

[6] That is, South Australia has actively chosen to direct a percentage of its Entitlement to the CLLMM. However, this volume is not sufficient to maintain the health of this Ramsar site. To that end, the purpose of the Basin Plan is to complement this volume and to discharge Australia's international obligations under the Ramsar Convention on Wetlands.

[7] Refer to n 2.

[8] Department of Climate Change, Energy, the Environment and Water, 'River Murray downstream of the Darling River, and associated aquatic and floodplain systems', *Species Profile and Threats Database* (Web Page) <https://www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=92&status=Critically+Endangered>.

[9] Department of Climate Change, Energy, the Environment and Water, *Approved Conservation Advice for the River Murray downstream of the Darling River, and associated aquatic and floodplain systems* (Advice, 16 January 2026) 67.

contemporaneous acknowledgment that the environmental outcomes the Act exists to secure have not yet been achieved, and that the margin for further delay or dilution has narrowed accordingly.

This context also bears on the constitutional foundation of the Water Act, and on the risks associated with any reform that would weaken its environmental focus. The Act's validity rests substantially on the external affairs power, which supports legislation implementing Australia's international treaty obligations. These obligations are given domestic effect through the Act's environmental objects, substantive provisions, and notably the Basin Plan itself. In my view, amending the Act's purpose to diminish that environmental focus would be constitutionally fraught and to that extent accompanied by the possibility of subsequent litigation. It would also, in substance, be an admission by the Commonwealth Government that it has given up on the river, on caring for Country, and on the use of independent science in environmental decision-making as climate change exacerbates the impacts of over-extraction, and as fish kills, algal blooms and other instances of ecosystem decline become more prevalent.[10]

While held environmental water managed by the CEWH is playing an important role in responding to this decline – during the drought-stricken years of 2018 to 2020, it was the only water flowing through the barrages in South Australia[11] – its contribution remains insufficient and is projected to become less reliable as climate change reduces allocations across the Basin.[12] To weaken the Act's environmental purpose at precisely the moment the evidence demands the opposite would not be a neutral legislative choice: it would be a decision to look directly at the evidence of decline and choose to ignore it, with all of the consequences that follow for the river, its floodplains and for future generations of Australians. Relatedly, attempts to re-direct the CEWH's portfolio away from environmental watering designed to implement Australia's international obligations – including in relation to wetlands of international significance listed under the Ramsar Convention on Wetlands – would also be misguided, particularly in a changing climate.

To that end, the question ought not to be whether the law should be amended to enhance the CEWH's ability to 'drive investment in complementary measures',[13] but how legislation, policy and procedure can evolve to address the structural biases[14] which undermine the CEWH's ability to maximise local and system-scale ecological outcomes which underpin the health and resilience of Basin water resources. By way of extension, legal guardrails[15] designed to protect the CEWH's portfolio from political interference and erosion must be maintained, including because these provisions help to ensure that the Act is 'appropriate and adapted' to implementation of Australia's obligations under various environmental treaties.[16] A portfolio of held environmental water that exists as part of a broader, evidence-based legal framework designed to remedy the impacts of over-allocation, and accordingly

[10] See, eg, Richard Kingsford, Gilad Bino and John Porter, 'Continental Impacts of Water Development on Waterbirds, Contrasting Two Australian River Basins: Global Implications for Sustainable Water Use' (2017) 23(11) *Global Change Biology* 4958; Australian Academy of Science, *Investigation of the Causes of Mass Fish Kills in the Menindee Region NSW over the Summer of 2018–2019* (Report, 18 February 2019); Sara Beavis et al, 'Water Quality Risks in the Murray-Darling Basin' (2023) 27(1) *Australasian Journal of Water Resources* 85.

[11] D Flett et al, *Basin-Scale Evaluation of 2021–22 Commonwealth Environmental Water: Synthesis* (Report, Commonwealth Environmental Water Holder, Department of Climate Change, Energy, the Environment and Water, 2023) 14.

[12] Murray-Darling Basin Authority, *Murray-Darling Basin Sustainable Yields: River System Modelling Technical Report* (Report, February 2026) 73–79.

[13] Department of Climate Change, Energy, the Environment and Water, *Independent Review of the Water Act 2007: Discussion Paper* (Discussion Paper, July 2026) 40. See also ibid 41, regarding opportunities to enable the CEWH to 'actively and flexibly trade water and invest in on-ground environmental activities or complementary measures to achieve environmental outcomes'.

[14] Some of these biases were identified in my Basin Plan Submission, as well as that of the South Australian Government. See Emma Carmody, *Submission Responding to the 2026 Murray-Darling Basin Plan Review Discussion Paper* (Submission, 1 May 2026) 23–27; South Australian Government, *Submission to the Murray-Darling Basin Authority's Basin Plan Review* (May 2026) 38.

[15] *Water Act 2007* (Cth) pt 6 div 1.

[16] As per the test elucidated by the High Court of Australia. See *Commonwealth v Tasmania* (1983) 158 CLR 1; *Richardson v Forestry Commission* (1988) 164 CLR 261; *Victoria v Commonwealth* (1996) 187 CLR 416.

maintain and restore water-dependent ecosystems, should be directed to that purpose, not to providing funding to address adjacent environmental problems.[17]

It is against this backdrop – the overall health of the MDB, the Lower Murray Listing, climate change and the constitutional dependence of the Act on its environmental purpose – that reform of the Water Act must be assessed. The improvements delivered under the current Basin Plan are real, but they remain modest, and will stay that way unless course correction is prioritised over political expediency. The Act's core purpose – to reinstate an ESLT and in turn preserve the health of the river system for all Australians – is not a competing interest to be traded away in response to that pressure; it is the unfinished task the Act was created to complete, and the constitutional condition of its continued validity.

2. The broader context: three decades of reform and structural change

It is, in my view, important to draw attention to the broader context within which the Water Act and Basin Plan have emerged, particularly given the discourse surrounding water recovery for the environment. Specifically, they were two of many reforms and structural changes that unfolded over a period spanning some three decades, rather than discrete interventions imposed on an otherwise stable and unchanging status quo. These changes have included, but are not limited to, the separation of land and water, which occurred under state laws; the development and regulation of water markets; changing terms of trade affecting certain agricultural commodities; evolving on-farm practices, including mechanisation; and climate change.

This rapidly evolving and intersecting set of factors has had a profound impact on agriculture across the Basin, thereby shaping the conditions under which the Water Act and Basin Plan have operated and forming the wider backdrop against which their impacts must be judged. This history suggests that Basin agriculture has, over an extended period, continued to adjust to significant structural change from a range of sources. It would accordingly be difficult to attribute the pressures currently observed in certain Basin communities to the Water Act and Basin Plan alone, given the number of other factors that have been operating concurrently over the same period. It follows that ceasing water recovery for the environment would do little to address the underlying pressures facing Basin communities, the majority of which arguably arise from issues unconnected to environmental water recovery. Some of these issues are elaborated upon in the following paragraphs, beginning with the most significant change to water law and policy in the MDB, namely the separation of land and water and the subsequent development of water markets.

The 1994 Council of Australian Governments (**COAG**) Water Reform Framework laid the groundwork for the unbundling of land and water, with this being consolidated and codified in the 2004 National Water Initiative. In parallel, state governments began reforming and, in some instances, entirely replacing their water legislation, with this resulting in the progressive creation of water sharing plans (**WSPs**) (or equivalent instruments), separate, tradeable water entitlements, altered annual allocation regimes, and the provision of water for the environment. For example, NSW's antiquated water statute, the *Water Act 1912* (NSW), was partially displaced at the turn of the century by the *Water Management Act 2000* (NSW), with the gazettal of each new WSP under the WM Act creating tradeable, unbundled water entitlements within the affected catchment. Similar reforms in Victoria began in 2007, starting with the unbundling of entitlements across seven catchments in the north of the state.[18] Critically, these state-

[17] As argued in my Basin Plan Submission, these should be otherwise funded. Further, they should not be considered an alternative to proper implementation of the Basin Plan (that is, environmental water recovery which, at a minimum, delivers a 3,200 GL Plan).
[18] For further details see: 'Water Reform History', *Victorian Water Register* (Web Page) <https://waterregister.vic.gov.au/about/water-reform-history>.

based reforms occurred independently of, and in many instances prior to, the adoption of the Water Act and the Basin Plan.

The separation of land and water was a precursor to the development and regulation of water markets, which have moved water to its highest value use (in economic terms). This has resulted in some farmers switching to more valuable commodities and, in the southern MDB, to a significant increase in certain forms of horticulture, in particular almond plantations.[19] This has in turn affected demand for water, including for high-security entitlements, in certain valleys. For example, the Australian Bureau of Agricultural and Resource Economics and Sciences (**ABARES**) reported that water use for horticulture in the Victorian Murray below the Barmah Choke (**Choke**) rose from 142 GL per year in 2011 to 324 GL per year in 2016.[20] By 2024–25, total water usage in this same (Victorian) reach had attained 893.297 GL, of which an estimated 546.289 GL, or 61%, was attributable to permanent horticulture.[21]

Relevantly, this expansion has been underwritten by interregional (or inter-valley) trade, predominantly from regions above the Choke.[22] ABARES has further noted in relation to the southern MDB more generally that 'genetic advances and movements in commodity prices have led to an increase in the demand for water for cotton and almonds and a decrease in demand for rice, dairy pastures and grapevines.'[23] Put simply, the ability to trade water – including between valleys – has had a profound, structural impact on the composition of irrigated agriculture, with this including an increase in inelastic demand for permanent plantations in certain parts of the southern MDB.[24]

Additionally, changing terms of trade – that is, fluctuating input and commodity prices – have affected local agriculture, including in the MDB. For example, the price of fertiliser, which is vulnerable to geopolitical events including war and pandemics, peaked in April 2026 at around $1400 in response to the closure of the Strait of Hormuz.[25] Historic price spikes in 2007-8 due to a range of factors[26] and in 2022 in response to the Russian invasion of Ukraine[27] are also well documented. Other relevant input costs subject to change (typically increases) include fuel,[28] seeds, agrochemicals,[29] land and farm machinery.[30]

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[19] T Goesch, P Legg and M Donoghoe, *Murray-Darling Basin Water Markets: Trends and Drivers 2002–03 to 2018–19* (ABARES Research Report, 2020).

[20] Australian Bureau of Agricultural and Resource Economics and Sciences, *A Snapshot of Australian Water Markets* (ABARES Insights, Issue 2, 2019) 6.

[21] WSP, *Water Availability and Demand in the Southern Murray-Darling Basin (2025 Update): An Assessment of Future Water Availability and Permanent Horticulture Irrigation Water Demand* (Report, 2026) 82.

[22] Goesch, Legg and Donoghoe (n 19).

[23] Goesch, Legg and Donoghoe (n 19).

[24] Demand is inelastic as permanent crops like almonds require water year on year to survive. This is to be contrasted with annual crops such as rice and cotton which only require water if they are sown in a given year.

[25] This was specifically urea-grade fertiliser. See 'Australia Backs CSBP, Incitec for Urea Supply Deals', *Argus Media* (online, 16 April 2026) <https://www.argusmedia.com/en/news-and-insights/latest-market-news/2817269-australia-backs-csbp-incitec-for-urea-supply-deals>.

[26] Senate Select Committee on Agricultural and Related Industries, *Pricing and Supply Arrangements in the Australian and Global Fertiliser Market* (Final Report, 20 August 2009) ch 2, <https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Former_Committees/agric/completed_inquiries/2008-10/fertiliser/report/c02>.

[27] Department of Agriculture, Fisheries and Forestry, *Snapshot of Global Fertiliser Trade* (Report, September 2022) 1. The Department noted that '[h]igh natural gas prices, export restrictions, and Russia's invasion of Ukraine have placed pressure on the supply and price of fertilisers' and that '[a]verage global fertiliser prices have almost tripled since January 2020'.

[28] Although I note that fuel prices are particularly volatile: see Australian Bureau of Statistics, 'A History of Automotive Fuel Prices' (Web Page, 29 April 2026) <https://www.abs.gov.au/articles/history-automotive-fuel-prices>. However, fuel has been identified by Basin irrigators as a rising cost: see Jacki Schirmer, *Water Reform: Socio-Economic Effects of Investment in Water Infrastructure in the Murray-Darling Basin: Findings from the 2018 Regional Wellbeing Survey* (Report prepared for the Department of Agriculture, August 2019) 31, 49.

[29] Seeds and chemicals have been identified by Basin irrigators as rising input costs. See Schirmer (n 28) 31.

[30] ABARES noted in a 2026 report that '[t]he increase in net new lending to the farm sector over the last decade also reflects a rapid increase in the price of key farming inputs, particularly land and machinery inputs. Agricultural land prices have grown at an average rate of around 10% per year, while tractor prices have increased at an average rate of around 12% per year'. See Vince Topp, *Agricultural*

The price of water purchased on the open market – whether as an annual allocation or a permanent entitlement – is itself a significant cost of production for irrigated agriculture. According to ABARES, '[w]hile water recovery does affect allocation prices,[31] seasonal conditions are still the dominant driver of prices, particularly in dry years.'[32] That is, the cost of marketised water is driven primarily by its availability, or lack thereof. Significantly, ABARES estimates that average allocation prices in dry years are around three times those in typical years ($383-$402 per ML higher), reflecting the fundamental role played by rainfall and water held in storage.[33] This has been compounded by demand-side structural change, particularly the expansion of permanent horticulture: ABARES estimates that increased almond demand alone has already added $25 per ML to average allocation prices, with a further $15 per ML expected as recent plantings mature, with similar dynamics evident in trade-constrained regions such as the Barmah Choke.[34]

Commodity prices for crops grown across the Basin have also fluctuated significantly in recent years for reasons unconnected to water recovery policy, with material consequences for grower profitability. Winegrapes provide a clear illustration. An independent review commissioned by Wine Australia found that average prices for red winegrapes in the nation's warm inland regions – including the Riverland, Sunraysia and Riverina – fell in each of the three vintages to 2024 to below the cost of production for an increasing number of growers, while average gross revenue per hectare in the Riverland fell from $12,700 in 2020–22 to less than half that amount in 2023.[35] These figures reflect longer-term, downward trends identified in the same review, as well as in other, widely reported sources.[36]

Rice presents a related, though more complex, illustration. NSW Government data indicates that the average paddy price fell from $430 per tonne in 2023–24 to $406 per tonne in 2024–25, reflecting historically low mill-out rates – which limited the proportion of the crop reaching premium markets – as well as a fall in international tender prices due to increased supply from the Northern Hemisphere (in particular the United States). Separately, the area planted to rice fell 24% to 43,000 hectares, driven by lower water inflows in the latter part of 2023. The combined effect of these price and area movements was a 30% fall in the gross value of the state's rice crop from 2023–24 to 2024–25.[37]

Lending in 2024–25: Aggregate Results (ABARES Research Report, March 2026) 11 <https://www.agriculture.gov.au/abares/research-topics/surveys/farm-debt>.

[31] Recent ABARES modelling provides an indication of the marginal price pressure associated with further water recovery for the environment: a further 225 GL recovered through buybacks was estimated to reduce surface-water supply available for irrigation by approximately 4% and increase average allocation prices by $45 per ML, or about 10%. See Rhys Downham et al, *The Impacts of Further Water Recovery in the Southern Murray–Darling Basin* (ABARES Research Report, June 2024) v–vi, 8.

[32] Linden Whittle et al, *Economic Effects of Water Recovery in the Murray–Darling Basin* (ABARES Insights, Department of Agriculture, Fisheries and Forestry, updated 17 July 2023) <https://www.agriculture.gov.au/abares/products/insights/economic-effects-of-water-recovery-in-murray-darling-basin>. I note that other research has found that water recovery has had no statistically significant effect on temporary prices or high-security permanent prices and volumes, although it found reduced temporary volumes traded and increased temporary-market volatility. See Wheeler et al, *Water Market Literature Review and Empirical Analysis* (Final Report prepared for the Australian Competition and Consumer Commission, Centre for Global Food and Resources, University of Adelaide, 29 May 2020) 82, summarising Alec Zuo, Feng Qiu and Sarah Ann Wheeler, 'Examining Volatility Dynamics, Spillovers and Government Water Recovery in Murray-Darling Basin Water Markets' (2019) 58 *Resource and Energy Economics* 101113.

[33] Whittle et al (n 32).

[34] Whittle et al (n 32).

[35] Kym Anderson, *Australia's Wine Industry Crisis and Ways Forward: An Independent Review* (Report prepared for Wine Australia, 18 July 2024) 1 <https://www.agriculture.gov.au/sites/default/files/documents/wine-industry-crisis-ways-forward.pdf>.

[36] See, eg, Eliza Berlage and James Wakelin, 'Grape Growers Being Paid 1970s Rates Say They Are at Breaking Point in Australia's Largest Wine Region', *ABC News* (online, 21 February 2024) <https://www.abc.net.au/news/2024-02-21/grape-growers-at-breaking-point-in-riverland-wine-region/103471608>; Emily Doak, 'Wine Grape Growers Remove Vineyards in New South Wales Riverina after Historic Low Prices', *ABC News* (online, 30 March 2024) <https://www.abc.net.au/news/2024-03-30/vineyards-removed-nsw-riverina-wine-grape-prices-historic-low/103628108>.

[37] NSW Department of Primary Industries and Regional Development, 'Rice', *Performance, Data and Insights 2025* (Web Page, 2025) <https://www.dpird.nsw.gov.au/about-us/publications/pdi/2025/rice>.

Additional factors affecting agriculture across the MDB include debt[38] and interest rates,[39] the mechanisation of certain practices which improve efficiency but decrease on-farm labour requirements,[40] and climate change. The last of these is resulting in increased temperatures, high rates of evaporation, reduced inflows, and more severe droughts and flooding. According to Chiew et al, the overall trend may be described as follows:

> *The variability in the future hydroclimate will remain high, with long wet periods and long dry periods continuing to occur against a background of declining rainfall and runoff trend. The downward shift in the mean annual runoff would be reflected in more frequent and severe droughts. Under the median projection, 3-year hydrological droughts experienced in the historical climate would occur up to twice more frequently in the future.*[41]

As I set out in my Basin Plan Submission,[42] recent hydrological modelling undertaken as part of the Murray-Darling Basin Sustainable Yields project assessed entitlement reliability under historical, 2030, and 2050 climate scenarios for a fully implemented Basin Plan. The results point to a marked decline in allocation reliability across catchments. As this modelling makes clear, declining allocation reliability is a structural, climate-driven trend that will continue to affect all licence holders – irrigators and the CEWH alike – reinforcing the point made above that water scarcity, not policy alone, is and will remain the principal determinant of both allocation availability and water price into the future.

None of the aforementioned analysis is intended to diminish the hardship genuinely experienced by many Basin communities, nor to suggest that water recovery has not had any impact at all. It is, however, to insist on accuracy. That is, given the range of forces described above – the separation of land and water, water market reform, volatile terms of trade, mechanisation, debt and interest rates, and a rapidly changing climate – it would be erroneous to lay these pressures at the feet of water recovery alone, or to treat its cessation as a solution to problems it did not create. The correct identification of cause and effect arguably matters more, not less, as the Basin moves further into a climate-constrained future and as the pressures outlined above continue to grow and potentially compound. As argued in my Basin Plan Submission, water laws and policies cannot by themselves resolve complex socio-economic pressures, including the prospect of climate-induced stranded assets; nor should governments implicitly endorse the gradual attrition of vulnerable farm businesses by default. Structured and appropriately targeted policies and support – not the abandonment of environmental water recovery – are the fitting response to a rural economy already adjusting to decades of multifaceted structural change.

At the same time, agriculture, communities, and the environment are not competing interests to be traded off in the abstract; all depend, ultimately, on a functioning river system. As set out in my Basin Plan Submission, the evidence of decline across the Basin – mass fish kills, drying riverbeds, shrinking wetlands, increasingly frequent algal blooms, and the recent Lower Murray Listing – points not to a

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[38] See, eg, Topp (n 30); Sarah Wheeler and Alec Zuo, 'The Impact of Drought and Water Scarcity on Irrigator Farm Exit Intentions in the Murray–Darling Basin' (2017) 61 *Australian Journal of Agricultural and Resource Economics* 404.

[39] See generally Topp (n 30).

[40] See, eg, Ruth Nettle et al, 'A New Framework to Analyse Workforce Contribution to Australian Cotton Farm Adaptability' (2018) 38 *Agronomy for Sustainable Development* 38; Neil Barr and Robert Kancans, *Trends in the Australian Agricultural Workforce: What Can Data from the Census of Population and Housing Tell Us About Changes in Agricultural Employment?* (ABARES Research Report 20.19, November 2020). However, it is also important to acknowledge that ABARES has reported that horticulturalists have adopted advanced machinery (such as automatic picking machines) in response to labour shortages: Rhys Downham and Fiona Litchfield, *Labour Use in Australian Agriculture: Analysis of Survey Results*, 2021–22 (ABARES, Department of Agriculture, Fisheries and Forestry, 2024) <https://www.agriculture.gov.au/abares/research-topics/agricultural-workforce/labour-use/2022>.

[41] FHS Chiew et al, *Hydroclimate Trends and Future Projections in the Murray-Darling Basin* (CSIRO Technical Report for the Murray-Darling Basin Authority, 2022) 5.

[42] Carmody (n 14) table 4, 19.

system recovering, but to one at real risk of ecosystem collapse if the Basin Plan is not fully implemented.[43] Securing the Basin's future, and with it the future of every community and industry that relies on it, requires the science-based water recovery which the river and its floodplains still manifestly need. Attempting to adjust the Water Act's settings to undermine this objective will further imperil the health of Australia's largest river system and, to be frank, fail to address the drivers of structural change across the Basin outlined in this submission.

3. Concluding remarks

Thank you for the opportunity to provide these comments. As noted at the beginning of my submission, I will continue to engage with the review of the Water Act, including by responding to your draft report, which will be published in November 2026.

Yours sincerely,

Dr Emma Carmody
Commissioner for the River Murray – South Australia
Lawyer

[43] Carmody (n 14) 2, 4, 15.