[redacted]

Dear Sir/Madam,

[redacted]

Submission on NSW Regional Water Strategy

This submission is in relation to the following NSW Regional Water Strategy documentation:

- Murray and Murrumbidgee Regional Water Strategies – What we Heard Report
- Murrumbidgee Discussion Paper on Regional Challenges – Draft
- Murray and Murrumbidgee Climate and Hydrological Modelling Report - Draft

While our focus is largely on the Upper Murrumbidgee, there are some elements in the mid and lower Murrumbidgee we also wish to highlight.

What we Heard Report

Overall, the *What we Heard* report has captured the wide range of views and ideas submitted as part of the consultation, including the issues raised in relation to the Upper Murrumbidgee River. We believe this document should continue to be a resource which is drawn upon during the next phase of developing the Regional Water Strategy.

One point we would like clarified, however, is the cause of constraints and erosion in the Tumut River. There are a couple of statements made in the *What we Heard Report* which suggests that erosion in the Tumut River is because of environmental flows, and/or the Reconnecting River Country Program (which hasn't started delivering flows). This does not take account of the interaction with the Snowy Hydro scheme, which results in water for power generation also putting pressure on the Tumut River channel. This needs to be acknowledged in the *What we Heard a*nd *Regional Challenges Report*, as the interactions between Snowy Hydro and the operations of the system significantly reduce flows in the Upper Murrumbidgee and Goodradigbee Rivers and, most importantly in the context of erosion, increases them in the Tumut River.

Discussion Paper on Regional Challenges

Noting that the *What we Heard Report* reflects the submissions made, it was disappointing that the *Regional Challenges Report* failed to do so, with scant mention of the Upper Murrumbidgee. We ask that a revision of the *Regional Challenges Report* is undertaken

and that it refers to the *What we Heard* Report. In addition, we would like the following comments on the Regional Challenges paper considered:

- For this to be a regional strategy, it needs to better reflect the interactions with the Australian Capital Territory (ACT) in the context of both water supply - the Upper Murrumbidgee River is a source of drinking water - and the future potential demands for the ACT to supply NSW towns.
- Governance also needs to be addressed, with interactions across jurisdictions including the States, ACT, Commonwealth, Snowy Hydro, local governments and broader Southern Connected Basin stakeholders, an ongoing challenge that requires resourcing.
- The shortfall statements on page 20 need to be clarified:
    - Will Queanbeyan have a 0.1% chance of having a 141 day period where it cannot service 25% of demands? If so, why is 141 days significant? How has this number of days been reached? Our assessment is that one day is significant (see modelling comments below).
    - The modelling does not show shortfalls for Yass, which is at odds with the reality that shortfalls have occurred. Do we interpret this as a modelling issue, local water management issue or both?
- The sentence: *"In Yass Valley and Bungendore, stakeholders have highlighted the need to integrate local supplies with ACT supply" reflects the reasons why* the ACT needs to be part of the Regional Water Strategy from both a supply and demand perspective. Population grown in these areas is continuing, and there is great concern that insufficient water security and water quality will impact the viability of these communities.
- As was noted in our response above to the *What we Heard Report,* the erosion impacts of high flows on the Tumut River need to be linked to the full costs of hydro-power generation. Snowy Hydro captures the headwaters of the Murrumbidgee River which is then diverted to the Tumut River, as this is the most 'profitable' use of the water for power generation. The problem with this approach is that two rivers are being forced through one channel, causing erosion and water quality impacts. An alternative would be for some of the water to flow to Burrinjuck Dam via the Upper Murrumbidgee. This would achieve significant environmental, cultural and social benefits, as well as reducing erosion along the Tumut River. The channel constraint posed by the Tumut River in peak irrigation season could also be reduced.
- A 49% reduction of flows at Balranald is a catastrophic situation. This type of reduction in end-of-system flows, coupled with the loss of the Lowbidgee floodplain and water dependent fish, plants and animal species, must be addressed in the Regional Water Strategy.

- Similarly, the statement *"cease-to-flow events will be more prevalent"* for the Upper Murrumbidgee, strengthens the need to include optimising the operation of the 254 GL storage of Tantangara Dam to meet regional water security needs over power generation (notwithstanding the impact on Tumut River noted above).
- On page 24, the box titled '*Initiatives to address flows and improve water for the environment'*, needs to acknowledge the impact of Snowy Hydro on the Upper Murrumbidgee River and other montane rivers. Although the Snowy Water Licence is subject to review every 10 years, the scope of that review can be narrow. For example, the Snowy Water Licence review undertaken in 2017 excluded volumes of water for the environment and town water supplies – both critical impacts that should be mandatory every time a review is undertaken.
- In the *Regional Challenges Report* why, we query why conveyance water is included as environmental water? We note that the bulk of the environmental entitlements are supplementary licences (583 GL), with 555 GL in the Lowbidgee, we ask whether these licences are the last to be allocated water and if so, whether further context around supplementary licences can be provided. The document reads as though the environment has 'too much' water, when half can only be accessed under wet to very wet conditions.
- The threats to native fish outlined in the *Regional Challenges Report* include structures (dams weirs etc.), cold water pollution and unscreened pumps, however, in the upper Murrumbidgee, the greatest threat is simply a lack of flows. This needs to be included, along with the threat of invasive species like redfin, gambusia, carp and trout.
- On page 34, agriculture in the Upper Murrumbidgee needs to be included, as vegetables, cereals and grazing enterprises are throughout the region. It is important to recognise the contribution these industries make to the local economy.

Modelling report

We understand that the [redacted] has raised several queries in relation to the modelling process and the assumptions it makes. We support these queries and are interested in the responses. We also welcome further consultation on how to interpret the results. For example, for a figure such as Figure 13, the lead-in text discusses reductions as a percentage, but the figures reflect an average as a scaling factor. It would be great to have follow-up conversations about how we should interpret this information, which gauging point or river reach it is applicable to etc. As non-modelers, it is hard to discern what this means for river flows, at which points, when and why.

On some of the methods used in the modelling report we query why a cease-to-flow volume of 1 ML/d is chosen. Impacts are severe well before this flow rate is reached, for example, Cooma water supply is impacted at 32 ML/d.

Conclusion

Overall, we are disappointed with the response to the submission we made to the Regional Water Strategy in the *Regional Challenges Report*. We feel that the *Regional Challenges Report* does not include many of the issues we raised in relation to the Upper Murrumbidgee River. We do note recent correspondence to rectify this, and look forward to seeing the next iteration of the *Regional Challenges Report*.

For the *Regional Water Strategy* to be impactful, it must consider reviewing the operations of Snowy Hydro infrastructure to achieve benefits for the entire system. It is vital that increased flows are secured for the Upper Murrumbidgee while, at the same time, alleviating some of the erosion and constraint pressures on the Tumut River system.

We would like to be part of any further engagement on these documents and suggest a mix of modelling experts and community members work together on some of the issues raised. This is a critically important *Regional Water Strategy*, and we will continue to be engaged at every opportunity presented to us.

Yours sincerely,

[redacted]

Attachment A - [redacted] Submission on 2022 Regional Water Strategy Consultation

[redacted]

To: NSW Regional Water Strategies Team
regionalwater.strategies@dpie.nsw.gov.au
3/6/2022

Dear Sir/Madam,

Re: [redacted]

submission on the Murrumbidgee Regional Water Strategy.

Thank you for the opportunity to comment on the Murrumbidgee Regional Water Strategy following the community consultation held at Queanbeyan on 18 May 2022. We appreciate the extension afforded to us to submit our response by 3 June 2022, as we care deeply about the Murrumbidgee River and are concerned about current management arrangements.

We at the [redacted] are passionate about the health and sustainable use of our rivers, waterways, creeks and wetlands. We value our rivers and wetlands for the multiple benefits they provide – life-giving water, plants, animals, transport, economic wealth, recreation, carbon sequestration, and the spiritual connection so many of us feel when we sit or walk along a riverbank.

In this submission our focus is on the Upper Murrumbidgee River and region, as we know from experience that this river has been completely left behind by the state and Federal water management reforms designed to improve the health of our waterways, ensure critical human water needs and deliver better outcomes for First Nations.

The Upper Murrumbidgee River water management and operational arrangements are complicated, and extremely difficult for people to navigate. We believe that the various strategies and plans designed to improve the health of the Upper Murrumbidgee are failing to realise any of their objectives for the environment and First Nations People.

Murrumbidgee Regional Water Strategy (in development)

Agency: NSW Department of Planning and Environment – Water

We draw your attention to this description of the Upper Murrumbidgee in the Regional Water Strategy and suggest that it is misleading.

> "The Upper Murrumbidgee has many unregulated rivers and creeks that are vital water sources for communities, industries and the environment. Water availability in the Upper Murrumbidgee is reliant on rainfall and this part of the catchment is susceptible to short intense droughts. This poses risks to water users in the Upper Murrumbidgee, particularly those reliant on the unregulated rivers as a sole source of water supply. This includes towns such as Cooma."

The guide to the Regional Water Strategy states that the first step is "understanding the challenges in each region in relation to the objectives." In the case of the Upper Murrumbidgee, the description above does not acknowledge the lack of flows caused by headwater regulation and a conservative approach to flow releases. The Upper Murrumbidgee River is, in fact, one of the most heavily regulated rivers in the state of New South Wales, with 90-99% of the river's flow captured by Tantangara Dam. As such, it is an **extremely regulated 'unregulated' system,** classified this way because Tantangara Dam is operated as part of the Snowy Scheme. This technical management definition seems to have been expanded to suggest that the Upper Murrumbidgee dries as a result of lack of rainfall and ignores the capture of its headwaters.

Tantangara Dam is a significant regulating structure which can, and sometimes does, provide releases for consumptive water to towns such as Cooma and the Australian Capital Territory. It also has the capacity to make proportionately small releases of water for the environment. Unfortunately, the small amount of water that is available to the environment can substitute for operational flows and consumptive town water, and is not protected from extraction. We find it incredible that water for the environment can be used to supplement consumptive water as part of normal operations – an indication of just how outdated the rules and thinking are in this part of the Murray-Darling Basin. We need this to be immediately addressed via changes to the rules and management arrangements for the Upper Murrumbidgee, to ensure they are contemporary and moving towards best practice river management.

As Snowy Hydro is a company, the Board is obligated to manage Snowy Hydro in the interests of its shareholders – that is, to meet their expectations. In October 2021, the then Shareholders, the Honorable Simon Birmingham Minister for Finance and the Honorable Angus Taylor Minister for Industry, Energy and Emissions Reduction issued a 'Statement of Expectations' to the Snowy Hydro Board.

In this Statement of Expectations, environmental considerations are not mentioned, downstream water users are not mentioned, Cultural and social flows are not mentioned – in fact, there are no expectations relating to anything other than energy production and distribution. The Statement of Expectations is enacted predominately by the Snowy Water Licence and the Snowy Water Inquiry Outcomes Implementation Deed (SWIOID), a document agreed to in 2002 and which has not been updated since.

We propose that this operating environment makes it almost impossible to meet objectives relating to the environment, Culture and community (except socio-economic) set out in any of the documents which govern water use in the Upper Murrumbidgee, and likely ensure the river's continued demise.

Murrumbidgee Long Term Water Plan (2020)

Agency: Department of Planning and Environment – Environment

The Murrumbidgee Long Term Water Plan recognises the significant and diverse nature of the Upper Murrumbidgee – including threatened native fish such as the Macquarie perch – and sets quantifiable objectives and targets for these species. However, it also acknowledges that despite these ecological values, the upper Murrumbidgee is *"adversely affected by the diversion of the majority of flows at Tantangara Dam for the Snowy scheme."*

Such a simple statement is at the heart of the problems for the Upper Murrumbidgee River – the diversion of the majority of the flows for the Snowy Scheme.

Water Sharing Plan for the Murrumbidgee Unregulated River Water Sources (2012)

Agency: Department of Planning and Environment – Water

The current rules in place for the Upper Murrumbidgee ensure that many of the environmental, Cultural and social objectives in the Water Sharing Plan are not being met for the 320km stretch of the Upper Murrumbidgee. Indeed, the existing rules and current operations are contributing to a continued decline in water quality and security for the region, as well as causing negative ecological, social and Cultural impacts.

Our response

In order to make a genuine attempt to achieve a healthy Upper Murrumbidgee River and improve regional water quality and security, we ask that a **new option** is added to the Murrumbidgee Regional Water Strategy, and acted upon as a matter of priority:

- Convene the governments of NSW, Victoria and the Commonwealth to undertake a review of the SWIOID. Importantly, this process needs to be open, broad, transparent and accountable for improving the Upper Murrumbidgee River. This review should be scoped in a collaborative way, including involvement of Australian Capital Territory stakeholders and should be undertaken **before the end of 2023**, to inform the Water Act review in 2024 and to support 'Option 16 (Review of the Snowy Licence)' in the Regional Water Strategy Long List of Options. There are provisions in the SWIOID to enable a review.

Given that the SWIOID has not been reviewed since 2002, we believe that it should happen as the first key step in recovering the Upper Murrumbidgee River. Enabling a better flow regime via the SWIOID and, ultimately by the Snowy Licence, will help contribute to meeting objectives and challenges identified in the Murrumbidgee Regional Water Strategy. Particular attention needs to be paid to environmental, Cultural and social outcomes, and critical human water needs.

Reviewing the SWIOID was identified as a mechanism to improve environmental outcomes in the Upper Murrumbidgee River, in the Murrumbidgee Long Term Water Plan (See Table 26 titled *Recommended further investment and projects to improve environmental water outcomes in the Murrumbidgee water resource plan area*). Adding the review of the SWIOID as a new Option under the Regional Water Strategy would deliver on several recommendations in the Long Term Water Plan regarding flow volumes and flexibility of releases into the Upper Murrumbidgee. A review of the SWIOID also provides opportunities to contribute to other Options identified in the Long List of Options applicable in the Upper Murrumbidgee River, and the objectives in the Water Sharing Plan.

We believe there is an urgent need to review the SWIOID to bring it up to date and integrate lessons learned from water delivery in other parts of the Murray-Darling Basin over the past 20 years. It would also strengthen any future review of the Snowy Licence (Option 16 in the Long List of Options document).

In relation to the Snowy Licence, while the statutory review period for review is every 10 years, Recommendation R4.2 of the *Ten-Year Review of the Snowy Water Licence* (Final Report 2018, NSW Department of Industry), was for the New South Wales Department of Industry to consider amending the licence at least every five years, *"to capture and clarify agreed interpretations of provisions, remove redundant provisions (and errors if any), harness any opportunities to simplify the licence and provide stakeholders with an opportunity to comment"* (emphasis added). While the next review of the licence is not until 2027, we suggest that an earlier review could be considered if needed to contemporize water management in the Upper Murrumbidgee River.

Feedback on other Regional Water Strategy options

Options relating to improved outcomes for First Nations People.

Option 5: Secure flows for water dependent cultural sites

Option 6: Shared benefits project (environmental and cultural outcomes)

Option 7: Support long-term participation of local Aboriginal people in water-related matters

Option 8: Incorporate Aboriginal history of water and culture in the southern Basin into water data

The following statements are in response to options provided for Cultural outcomes in the Regional Water Strategy, with a focus on the Upper Murrumbidgee River.

We support the options in the Regional Water Strategy for pathways to identify Cultural objectives and outcomes in the Upper Murrumbidgee. A first step under Option 5 would be to have an appropriate process to identify culturally significant sites, so that these sites can receive better quality flows comprising operational/consumptive, environmental and cultural flows. A program of Aboriginal Waterways Assessments (or another method identified by First Nations) should be a priority to support identification of Cultural sites, values and objectives for water, which can then underpin further options, such as shared benefits with environmental water used from Tantangara Dam.

A broader commitment to engagement and development of a shared understanding and benefits would be demonstrated by the establishment of a joint New South Wales-Australian Capital Territory Community Advisory Panel for the Upper Murrumbidgee. This could include standing positions for First Nations representatives, relevant government Agency staff and Snowy Hydro water managers. Such a group could identify how a healthier flow regime in the Upper Murrumbidgee can support outcomes for First Nations and the community, and could be modelled on the Community Advisory Panel arrangement in place for the Coorong, Lower Lakes and Murray Mouth.

Options relating to Governance – Integrated land and water planning and management

Option 15: Strengthen inter-jurisdictional water management
Option 16: Develop climate risk evidence base to inform the next Snowy Water Licence Review
Option 22: Maintain water-related amenity in the Murrumbidgee region during droughts

If the Upper Murrumbidgee is to be brought up to date with contemporary river management, appropriate resourcing for Department of Planning and Environment (both Water and Environment elements) will be needed so that genuine, long-term engagement with community, First Nations, Australian Capital Territory government agencies and utilities, can work to implement these options. Interjurisdictional water management is complex and it is essential that improvements are made for regional strategic water planning and integrated catchment management. Should a review of the SWIOID proceed, it needs to meaningfully involve stakeholder groups from the Upper Murrumbidgee region and the Australian Capital Territory.

As a commitment to strengthened Interjurisdictional water management, we would ask that Option 22 include water related amenity targets for sites in the Upper Murrumbidgee including recreational locations around Canberra such as, for example, Tharwa, Pine Island Reserve and Kambah Pool. A priority for improvements on amenity in these areas should focus on the impacts of algae and bacteria.

Options for reducing Degradation of riverine and floodplain systems.

25. Improve flows to important ecological sites

26. Develop a river and catchment recovery program for the Murrumbidgee region

27. Investigate water quality improvement measures

30. Review environmental water arrangements

31. Re-establish threatened fish species through habitat restoration and conservation restocking

Options to improve the flow regime and rules for environmental water need to include a focus on the Upper Murrumbidgee River, a system we consider as 'forgotten' by water reforms. In addition to the details in Option 30 for reviewing environmental water arrangements below Burrinjuck and Blowering Dams, rules around environmental water use in the Upper Murrumbidgee need to be brought into line with best practice; including through the application of the Principles for Environmental Water Management in the Murray Darling Basin Plan. Carry-over provisions also need to be considered and we see a review of the SWIOID as the mechanism for starting these conversations. In addition to improving the rules for environmental water, options for the Upper Murrumbidgee should also include increasing the volume of water available to the environment.

We agree with option 26 for a catchment recovery program and suggest one should be developed for the Upper Murrumbidgee as a matter of priority, with both New South Wales and Australian Capital Territory involvement (in line with option 16). Part of this should include mapping threatened species and ecologically significant sites to inform water use and monitoring.

A coordinated, long-term investment in monitoring and evaluation of flows in the Upper Murrumbidgee also needs to form part of implementing options 25-31 listed above. A lack of monitoring was highlighted as an area of concern in the Ten-year review of the Snowy water licence (Final Report 2018, NSW Department of Industry). As an approach, such a program could follow the Commonwealth Environmental Water Office's Flow - Monitoring Evaluation and Research Program; a five-year-plus investment in intervention monitoring of ecological responses to environmental flows. This could also address the gap in our understanding of vegetation in the Upper Murrumbidgee, previously identified in the Long Term Water Plan (DPIE – Environment, 2020).

With Silver perch now considered locally extinct in the Upper Murrumbidgee, and many other species showing concerning declines, flow regimes need to be reinstated to support Option 31 in the long list of options. With the Upper Murrumbidgee being home to the largest self-sustaining population of Macquarie perch (one of only four known populations remaining), this river should be of the highest priority for attention under the strategy.

Limitations of existing water infrastructure, delivery and operations

Options 33,35, 37, 41 relating to operations.

Improving the health of the Upper Murrumbidgee River should also be considered in the context of meeting operational challenges. Any options within the Strategy seeking to improve flows to the river downstream of Burrinjuck and Bowering Dams should consider the Upper Murrumbidgee as potentially part of the solution. Noting the erosion impacts in the Tumut River from high flows, we think that options to improve releases to the mid and lower Murrumbidgee could explore opportunities to use the Upper Murrumbidgee as a flow route; potentially improving water quality, environmental, social and Cultural outcomes. Given the ideas on the table already and the potential costs involved, perhaps all ideas should be canvassed including adding an electricity generating turbine to Tantangara Dam to help off-set the loss to power generation, and enlarging the Tantangara Dam outlet to improve both operational and environmental releases. These are areas outside our expertise but we feel perhaps warrant further exploration.

The opportunity

We agree that the first step for the Regional Water Strategy is to identify the challenges facing the Upper Murrumbidgee River and canvass options available to improve the river. Quite simply, we see that the rules which govern the operation of the river's major upland storage – Tantangara Dam – are out of date and, in their current form, are contributing to the **managed demise of the river**. The rules outlined in the Snowy Water Inquiry Outcomes Implementation Deed have not been reviewed since their development in 2002. The volume of water for the environment afforded to the river is insufficient to meet the environmental, Cultural and many social objectives of the Water Sharing Plan.

Impacts on the Snowy and Montaine rivers from hydro power generation were the catalyst for the Snowy enquiry (and establishment of the subsequent SWIOID in 2002) and since then, the Upper Murrumbidgee has continued to decline.

Inadequate volumes of environmental water were documented by the Snowy Scientific Committee in 2010. A lack of flows, a lack of protection of these flows, and concerns around the rigidity of the rules to deliver them have been highlighted in several documents and processes including:

- the current review of the Water Sharing Plan for the Murrumbidgee Unregulated River Water Sources
- the Murrumbidgee Long Term Water Plan.
- Via Traditional Owners as part of the development of the Murrumbidgee Surface Water Resource Plan
- Via a community Fish and Flows forum held in 2021, and a Water Quality and Security Forum held in 2022.

- the 2017 Ten-year review of the Snowy water licence (captured in the Final Report, 2018)

There remains no obvious avenue or catalyst for change**. We can't simply keep recoding the death of this river.**

If the Regional Water Strategy is truly a strategic long-term document, then it needs to change the conversation about the 320km reach of the Upper Murrumbidgee River. It needs to help bring the rules for managing this river forward by two-decades to enable the use of the best available knowledge, adaptive management, genuine community and First Nations engagement in water planning and use. The way it can start to do this is by better articulating the needs of the Upper Murrumbidgee in the Long List of Options and by introducing a new option to have an open, broad, transparent and publicly accessible review of the SWIOID. This should be done as a matter of urgency to allow improvements to be factored into the Water Act review in 2024, the Basin Plan review in 2026 and the next Snowy Licence Review in 2027 – a Review we hope to be brought forward if necessary.

We see the Regional Water Strategy as an opportunity to contemporise the rules for water use in our region, build collaborative governance, and use the best available information for flow management to deliver vastly better social, cultural, and environmental outcomes for the region, alongside objectives for economic development and energy production.

Please contact us if you require further details, we do not want the Upper Murrumbidgee River to continue to decline and are keen to do what we can to see it recover.

Yours sincerely,