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SUBMISSION

Draft Water Sharing Plan for the Murray Unregulated River Water Sources 2024

Introduction

The Inland Rivers Network (IRN) is a coalition of environment groups and individuals concerned about the degradation of the rivers, wetlands and groundwaters of the Murray-Darling Basin. It has been advocating for the conservation of rivers, wetlands and groundwater in the Murray-Darling Basin since 1991.

Member groups include the Australian Conservation Foundation; the Nature Conservation Council of NSW; the National Parks Association of NSW; Wilderness Australia; Friends of the Earth; Central West Environment Council; and Healthy Rivers Dubbo.

IRN welcomes the opportunity to provide comment on the proposed replacement water sharing plan for the Murray Unregulated River Water Sources (draft replacement plan).

This draft replacement plan covers 15 unregulated water sources that provide important tributary inflows to the regulated Murray River. The plan area also supports a significant number of threatened species and threatened ecological communities including:

- native fish species under threat including Macquarie perch, Murray cod, silver perch, rainbow fish, southern pygmy perch, trout cod, Murray hardyhead, purple spotted gudgeon, Murray jollytail, and the river snail
- Endangered aquatic ecological community: the Montane Peatlands and Swamps EEC
- 10 threatened River Styles including chain of ponds, anabranching gravel, low sinuosity and meandering gravel and sand, bank controlled sand and dune controlled anabranching.

The development of the Water Resource Plan for this area found high risks to the Tooma, Hume, Albury and Mannus unregulated streams.

We also note that the NSW Central Murray Ramsar wetlands are within this draft replacement plan area.

IRN participated in the Natural Resources Commission (NRC) statutory review of the *Water Sharing Plan for the Murray Unregulated River Water Sources 2011* in 2020. We noted that the Alluvium audit of the Water Sharing Plan conducted in 2019 found a number of key issues that need to be addressed. These are still outstanding.

The draft replacement plan fails to adopt many of the NRC recommendations aimed at improving water management in the Murray Unregulated Water Sources. Recognition of issues raised and rules changes needed to be consistent with the Long-term Watering Plan for this water source have not been included in the draft replacement plan. This is particularly important for protection of endangered fish populations such as Macquarie perch and trout cod.

We also note that the draft replacement plan is very different to the amended plan adopted in 2020 as part of the Water Resource Plan SW8 (WRP) development. This WRP is still under assessment by the MDBA. The use of a template developed to remake coastal water sharing plans is not appropriate for inland water sources within the Murray-Darling Basin that fall under the requirements of the *Water Act 2007* (C'wlth)

IRN is very concerned that the development of a replacement plan was given an additional 2 years to improve information gaps and yet the basic protection for environmental and cultural outcomes has not changed, other than new rules to better protect wetlands and an extension of the rule to ban new in-river dams, although not in all water sources. There is still no identification of Aboriginal cultural sites or cultural access licences. We consider that the draft replacement plan fails to meet the objects and principles of the *Water Management Act 2000* (WMA).

1. Supported measures

1.1 Prohibition on instream new dams

IRN supports the proposed ban on new dams across 3rd order and larger streams in the Murray Below Mulwala Water Source and the retention of the ban in the Dora Dora Water Source. We consider this ban should be extended across all water sources covered by this Water Sharing Plan, as has happened in other areas such as Intersecting Streams and Castlereagh plan areas.

However, we do not support the exemption for town water supply purposes. A policy for off-stream storages for town water supply is necessary to protect flow connectivity and important habitat values.

1.2 Improved protection for wetlands

IRN commends the list of significant wetlands included in Schedule 4. This extensive list demonstrates the high number of important environmental assets in this water source. The inclusion of new rules to prevent trade and new works within or 3 km upstream of Ramsar wetlands or within these significant wetlands is supported. However, we do not support Ministerial discretion to consider allowing new works in significant wetlands. This rule must

be mandatory. We note that Poon Boon Lake is not included within Schedule 4 although it has 13 GL of held environmental water purchased through the Living Murray program. Other lakes in this system are also missing from the Schedule. The Ramsar listed wetlands in the Central Murray are no longer State Forests but have been transferred to the national park estate.

2 Key Issues with the draft replacement plan:

- Failure to protect Planned Environmental Water
- Unsustainable LTAAEL
- Protection of low flows
- Protection of first flush flows
- Take from off-river pools
- Cultural water and sites
- Change to trading rules
- Changes to plan vision, objectives and performance indicators

2.1 Failure to protect Planned Environmental Water

The replacement plan has removed the Part 4 Planned Environmental Water provisions as provided in the 2020 amended plan that clearly outlines the definition of planned environmental water under the WMA. These are:

(14) Water is committed and identified as planned environmental water in these water sources in the following ways:

- (a) by reference to the commitment of the physical presence of water in these water sources,
- (b) by reference to the long-term average annual commitment of water as planned environmental water, and
- (c) by reference to the water that is not committed after the commitments to basic landholder rights and for sharing and extraction under any other rights have been met.

Having the environmental provisions distributed through the replacement plan across Part 4 and Part 6 diminishes the importance of planned environmental water and its protection.

The replacement plan fails to meet the planned environmental provisions:

- Part 4 Division 2 cl 17 (b) *commits water as planned environmental water by reference to the long-term average annual commitment of water resulting from compliance with the long-term average annual extraction limit.*

As outlined below there are significant issues with plan limit and compliance assessment. There has been no reporting on annual average extraction. *‘Compliance assessments comparing the actual average annual extraction for each extraction management unit against their LTAAELs have not been undertaken.’¹ Also ‘Entitlement is considerably higher than the estimated allowable licenced extraction’²*

¹ Natural Resources Commission, December 2021. Final Report. Review of the Murray unregulated water sharing plans p 24

² NRC Review Report Summary p8

- Part 6 Division 1 cl 29 (b) in Divisions 2-4 - *commits water as planned environmental water by reference to the water that is not committed after the commitments to basic landholder rights and for sharing and extraction under any other rights have been met,*

All extraction has not been identified in this replacement plan therefore the commitments are unknown and the provision of planned environmental water is over estimated. There is no assessment of water required to meet environmental needs of the water source. This includes accounting for diversions using block banks to flood land.

- Part 6 Division 1 cl 29 (c) in Divisions 2 – 3 - *commits water as planned environmental water by reference to the commitment of the physical presence of water in the water source.*

The replacement plan does not adequately protect the physical presence of water in the water source in the form of low flows. Ephemeral streams need higher levels of low flow protection to prevent prolonged drought conditions.

2.2 Unsustainable Long Term Annual Average Extraction Limit (LTAAEL)

IRN has significant issues with the LTAAEL in the replacement plan:

- It is not based on an assessment of sustainability.
- It locks in history of use from the *Water Act 2012* entitlements and therefore fails to consider ecological needs of the water source as required by the WMA.
- The LTAAEL fails to include an estimate of capture or diversion of overland flow including harvestable rights. The policy to allow for 100% harvest of rainfall runoff in western end of this water source is a significant issue. It is IRN's view that no harvestable rights should be allowed or granted from these water sources.
- Planned environmental water is not protected by the LTAAEL in this replacement plan because all forms of extraction are not included.
- A sustainable, numeric volume needs to be established so that annual LTAAEL compliance can be met.

2.2.1 The MDBA maintains that all forms of interception should be accounted for within the Plan rules and under the LTAAEL.

2.2.2 Alluvium audit of 2011 water sharing plan found that provisions for compliance with LTAAEL were not given effect and that calculation of the current levels of annual extraction were not occurring or the assessment of these against the LTAAEL.³

These issues are significant in regard to meeting the planned environmental water provisions.

2.3 Protection of Low flows

The draft replacement plan area has a range of cease to pump rules, some do not provide adequate ecosystem protection. Many water sources have a cease-to-pump rule when there is less than full flow through a 200mm pipe. This is considered to be the equivalent to around 0.5 ML/day. This level of very low flow does not provide adequate passage for large native fish

³ Alluvium, October 2019. *Audit of the Water Sharing Plan for the Murray Unregulated and Alluvial Water Sources 2011*

species. The Upper Mannus Creek management zone is proposed to protect flows of only 1 ML/day or less while the lower creek has flow classes that protect a much higher flow in two classes. Other water sources have a range of different flow heights protected and a variety of flow classes. There appears to be very little consistent low flow protection across the draft replacement plan that is required to meet environmental outcomes and improved river health.

Protection of low flows is significant for riverine ecological and connectivity requirements, especially to provide fish passage. New climate change modelling for the region needs to be considered including predicted increased evaporation rates.

When a pump is switched on because there was a tiny flow, it can reduce the width and length of flowing water and cause cessation of flow downstream, particularly if any remaining flow is less than the evaporation rate. It artificially extends the duration as well as extent of periods without flow. This does not provide the commitment for physical presence of water under the definition of planned environmental water. This fails to facilitate connectivity, as continuity and downstream extent of low flows are not protected. This threatens the productivity of the aquatic ecosystems and survival of local populations of species trying to complete their life cycles or find water to drink.

Human-induced climate change is likely to exacerbate periods with little or no flow due to drought and increased evaporation so if pumping rules effectively allow artificial extension of periods with no flow downstream this will be a double wham. Setting, implementing and enforcing practical ways to protect low flows would be beneficial to people downstream such as basic rights holders as well as to ecological values. The appropriate time to work out and set practical rules to improve protection of low flows is now, before a replacement plan is adopted. Attention needs to be given to the requirements of the Long-term Watering Plan.

2.4 Protection of first flush flows

It is critical for first flush flows to be protected after drought to replenish important habitat such as pools and wetlands throughout this water source, including during periods that may turn out to be no more than a brief respite in a more extended drought, and to contribute to connectivity needs in significant wetlands. This should be achieved through the combination of rules in the replacement plan and the option of using s324 orders when necessary.

This important connectivity requires a cease - to - pump rule for all licensed water users.

2.5 Take from off-river pools

IRN does not support the rule that off-river pools can be drawn down to 80% capacity in all water sources. This does not protect important drought refugia from the impact of increased evaporation rates and will increase the likelihood of drying out during prolonged hot, dry periods. There must be consistency across water sharing plans to protect off-river pools at full capacity.

We presume that Poon Boon Lake is covered by this rule and note that there are no rules within the draft replacement plan to protect the 13 GL of held environmental water from increased evaporation loss due to lake drawdown. This significant wetland must be listed under Schedule 4 to ensure that proposed protections for wetlands apply to Lake Poon Boon.

2.6 Cultural water and sites

The draft replacement plan fails to identify and protect water-dependent Aboriginal cultural assets and also fails to provide access licences for Aboriginal cultural activities. We note that there is an amendment provision in Part 10 cl 53 (1) (f) to allow for changes in the replacement plan. These actions are yet to occur 20 years after the first water sharing plan was gazetted for improved management of the Murray Unregulated Water Sources where there are significant cultural values. It is imperative that a timeframe for achieving these amendments is included in the replacement water sharing plan to ensure that these legal requirements under the WMA are achieved within the lifespan of the plan.

2.7 Trade Rules

IRN does not support the proposed changes to trade rules into unregulated water sources within this draft replacement plan. There is no transparency in regard to environmental impact assessment or the basis of the risk assessment referred to in report cards. It is noted that the current rules require internal water source trading to be subject to assessment. However, there is no requirement for assessment of proposed additional trade into water sources. The proposed new trade rules are very complex and will require additional staff resources to properly regulate. These decisions have been made without full estimate of the volume of harvestable rights in these catchments or the diversion of overland flows.

2.7.1 Combined 144 ML trade in

The proposal to allow a combined maximum 144 ML of entitlement to be traded into the following water sources is not acceptable and contradicts the aim to have a lower level of entitlement. There has been no evident justification based on environmental needs for this volume. The proposed volume of 1103 ML of total entitlement across the four water sources is currently less than existing entitlements. There is a presumption that more water will be traded out of these water sources than traded in. An additional 144 ML is a very large change for increase water use in any of these water sources:

- Dora Dora water source currently has no licenced take and an estimated 288 ML/yr of basic rights extraction.
- Hume water source currently has 704 ML of entitlement and an estimated 85 ML/yr of basic rights extraction. This water source has been identified at high risk.
- Jingellic water source currently has 242 ML of entitlement and an estimated 180 ML/yr of basic rights extraction
- Ournie Welaregang water source has 13 ML of entitlement and an estimated 230 ML/yr of basic rights extraction

2.7.2 Combined 87 ML trade in

The proposal to allow a combined maximum 87 ML of entitlement to be traded into the following water sources is not acceptable. There has been no evident justification based on environmental needs for this volume or for the volume of 666 ML of total entitlement across both water sources plus the Albury water source. The combined basic rights estimate across these water sources is 706 ML/yr:

- Lower Wangamong water source currently has 16 ML of entitlement and an estimated 166 ML/yr of basic rights extraction. The proposal to allow an additional 87 ML of entitlement to be traded into this water source is more than 5 times the current water extraction with minimal environmental protection rules.

- Majors water source currently has 76 ML of entitlement and an estimated 47 ML/yr of basic rights extraction. The proposed new trade rule allows for an additional 11 ML to be traded in with minimal environmental protection rules.
- These rules are tied to the Albury water source that has a no net gain trade rule with current entitlement of 487 ML and an estimated 439 ML/yr of basic rights extraction with minimal environmental protection rules. This water source is at high risk.

2.7.3 Other proposed changes to trade-in rules

IRN also objects to increased trading into the following water sources:

- **Indi water source:** currently has 2,215 ML of entitlement with rules allowing up to an additional 3, 238 unit shares of high flow access licences plus an estimated 188 ML/yr basic rights. The proposal to allow an additional 332 ML of unregulated river access licence to be traded into this water source is not justifiable.
- **Mannus Creek:** currently has 1,276 ML of entitlement with rules allowing up to an additional 2,978 unit shares of high flow access licences plus an estimated 522 ML/yr basic rights. The proposed additional trade in the Upstream Management Zone of 57 ML with minimal environmental protection rules is not supported. The proposed additional trade of 134 ML in Downstream Management Zone where the only remaining wild population of Macquarie perch has survived across the state is an unacceptable risk. The effort should be to lower the extraction rates in this water source. There is no evidence that the current cease-to-pump rules in this management zone are adequate to protect this endangered native fish population. Temporary trade of local water utility access licence to Mannus Lake increase town water access for Tumburumba needs to include an environmental assessment during prolonged drought. Mannus Creek has been identified as a water source with high risk..
- **Marragle Creek:** currently has 411 ML of entitlement with rules allowing up to an additional 567 unit shares of high flow access licences plus an estimated 2 ML/yr of basic rights. The proposed additional 62 ML of unregulated river access licence to be traded into this water source is not justifiable.
- **Swampy Plain water source:** currently has 290 ML of entitlement plus an estimated 42 ML/yr of basic rights with minimal environmental protection rules. The proposed additional 44 ML trade in is not justifiable. The problem of extreme variability of flows in the Swampy Plain water source has been identified in the LTWP.
- **Tooma water source:** currently has 1397 ML of entitlement plus an estimated 81 ML/yr basic rights with minimal environmental protection rules in the tributaries. Tooma River rules also allow for up to an addition 2,177 unit shares of high flow access licences. The proposed additional 202 ML into Tooma River and an additional 10 ML into the tributaries is not justified. This water source is at high risk.
- **Tumbarumba Creek:** currently has 1547 ML of entitlement plus an estimated 22 ML/yr of basic rights. The Upstream Management Zone has rules allowing trade in of up to 1233 unit shares of high flow access licences. No change is proposed for this management zone. However, the Downstream Management Zone has rules allowing trade in of up to 960 unit shares of high flow access licences with a proposed addition 126 ML trade in that is not justified.

2.7.4 Maintenance of current trade rules:

IRN supports that there is no change to trade rules for the Murray below Mulwala water source that prohibits trade into this water source. We note that protection of low flows is minimal in this water source that has the highest volume of unregulated access licences of all water sources in the plan area – 27,732 ML.

IRN does not support the rule to permit trade into the Upper Murray River with no limit on volumes and no requirement for assessment, as with internal trades. The water source currently has 6038 ML of entitlement plus an estimated 33 ML/yr of basic rights. The cease-to-pump rule of 600 ML/day flow is important noting that this is the smallest water source in the plan area.

2.8 Changes to plan vision, objectives and performance indicators

IRN does not support the change in approach for replacement water sharing plans for inland water sources that are managed under the Basin Plan and *Water Act 2007* (C'lwth).⁴ This has resulted in significant changes to the plan vision, objectives and performance indicators provided in the 2020 amendment plan that was submitted with the NSW Murray and Lower Darling Surface Water Resource Plan.

We are concerned that important provisions for meeting environmental objectives in the 2020 amended plan have been revised and simplified. The proposed performance indicators, in particular have been modified to such an extent as being immeasurable.

The Alluvium audit of the 2011 water sharing plan identified that the performance indicators at Part 2 cl 12 had not been given effect to.⁵ It is critical that water sharing plans have strong, measurable performance indicators and that these are given effect through rules and compliance monitoring.

IRN recommends that the targeted environmental objectives and performance indicators in the 2020 amended plan remain in the replacement plan:

(2) The targeted environmental objectives of this Plan are to protect and, where possible, enhance the following over the term of this Plan:

- (a) the recorded distribution or extent, and population structure of, target ecological populations including native fish, native vegetation and low flow macroinvertebrate communities,
- (b) the longitudinal and lateral connectivity within and between water sources to support target ecological processes,
- (c) water quality within target ranges for these water sources to support water-dependent ecosystems and ecosystem functions,

(3) The strategies for reaching the targeted environmental objective of this Plan are as follows—

- (a) establish and maintain compliance with a long-term average annual extraction limit and a long-term average sustainable diversion limit,
- (b) reserve a portion of flows to partially mitigate alterations to natural flow regimes in these water sources
- (c) restrict the take of water from natural pools, lagoons or lakes when the volume of that water is less than the full containment volume
- (d) restrict or prevent water supply work approvals on third order or higher streams

⁴ NSW Government, February 2022. Replacement water sharing plan manual

⁵ Alluvium, October 2019. *Audit of the Water Sharing Plan for the Murray Unregulated and Alluvial Water Sources 2011*

(e) reserve a portion of flows to maintain longitudinal connectivity with and between these water sources and other connected water sources.

(5) The performance indicators used to measure success in achieving the targeted environmental objectives in subclause (2) are changes or trends in ecological condition during the term of this Plan including the following:

- (a) the recorded range or extent of target ecological populations,
- (b) the recorded condition of target ecological populations,
- (c) measurements of hydrological connectivity,
- (d) the recorded values of water quality measurements including salinity, turbidity, total nitrogen, total phosphorous, pH, water temperature and dissolved oxygen,
- (e) the extent to which the strategies in subclause (3) have provided flow conditions of sufficient magnitude, frequency, timing and water quality to achieve targeted environmental objectives,

Conclusion

IRN considers that the draft replacement plan for the environmentally sensitive Murray Unregulated Water Sources does not meet the principles and objects of the WMA or the Basin Plan. Significant improvements to rules are needed so that history of use is not carried over from the *Water Act 1912*.

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