

SUBMISSION: INTERSECTING STREAMS SURFACE WATER RESOURCE PLAN

Context

The Commonwealth Environmental Water Holder (CEWH) appreciates the opportunity to provide a submission on the draft Intersecting Streams Surface Water Resource Plan (draft Intersecting Streams WRP) and accompanying documents.

This submission is made in the context of potential risks to the CEWH's statutory responsibilities, and proposes strategies to mitigate residual risks, consistent with the risk-based approach embedded within the Basin Plan (Chapter 10, Part 9). The CEWH's statutory responsibilities regarded in formulating this submission include:

- the *Water Act 2007* and Basin Plan 2012, to protect and restore priority environmental assets and ecosystem functions of the Murray-Darling Basin;
- the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), to ensure the efficient and effective use of Commonwealth resources (held environmental water); and
- advice with regard to Matters of National Environmental Significance protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), including wetlands of international importance (Ramsar wetlands), listed threatened species and endangered ecological communities and species of migratory waterbirds protected under international agreements.

Mitigating future risks

The Commonwealth Environmental Water Office (CEWO) notes that the NSW Department of Planning, Industry and Environment (the Department) has not used Stakeholder Advisory Panels (SAP) as a means for sharing draft content used for the Intersecting Streams WRP. Due to limited opportunities to discuss risks and mitigation strategies, some issues remain to be addressed, together with areas that would benefit from clarification to improve transparency and understanding.

Structure of the submission

Part A: Catchment specific issues

1. Active management of held environmental water
2. Planned environmental water
3. Operational strategies and transparency
4. Other matters

Part B: State-wide issues

5. Public assurance of best available information
6. SDL Compliance
7. Monitoring, reporting and accounting
8. Extreme events
9. Water quality

PART A: CATCHMENT SPECIFIC ISSUES

1. Active Management of held environmental water

As part of its Water Reform Action Plan, NSW has made significant progress towards implementing active management arrangements to protect HEW in unregulated sections of northern Basin Rivers (e.g. Macquarie River and Gwydir River) that flow into the Barwon-Darling. However, gaps remain in the protection of HEW flows into the Barwon-Darling including HEW from the NSW Intersecting Streams and HEW flows from Queensland reaches of the Intersecting Streams into NSW. To provide certainty to the management of HEW and consumptive take in specific events, the CEWH encourages future implementation of active management operational arrangements in northern Basin Rivers. Suggestions to this effect are provided below.

Accounting methods and public communication

The draft Risk Assessment identifies a number of high risks to water available for the environment, many of which are associated with potential further water resource development in Queensland¹. Active management and coordination of cross-border arrangements are fundamental to enable environmental watering between connected water resources² and to achieve delivery outcomes under the Basin Plan and Long Term Watering Plan. Successful implementation of active management in the Intersecting Streams WRP area would lead to greater inflows into the Barwon-Darling. Active management is also expected to result in a reduced incidence of the use of temporary water restrictions under the NSW Water Management Act (s324).

Improved public communication of general water access announcements and the management of environmental events would provide transparency and improve licence holder understanding of when they can take water.

Collaboration between the Queensland Department of Natural Resources, Mines and Energy (DNRME) and the Department to develop cross-border arrangements that support active management would enable environmental watering between connected water resources³. The development of a robust and transparent accounting method for HEW flowing across the

¹ Draft Intersecting Streams Risk Assessment – Section 4.3 Risks to water available for the environment & capacity to meet EWRS

² Basin Plan – s10.27

³ Basin Plan – s10.27

border from Queensland to NSW is needed to implement active management, consistent with state commitment under the Basin Plan Commitments Package⁴.

It is requested that:

- the Department and DNRME develop appropriate accounting arrangements to enable the active management of HEW across the Queensland-NSW border, and to facilitate flows into the Barwon-Darling;
- the Department develops online communication platforms (e.g. website, phone notifications) that publicly announce access to unregulated flow events that details period of access and river reaches where access applies—supported by a mechanism that equitably shares available volume between consumptive users and the environment; and
- a clause is included within the WRP and WSP that supports the future implementation of active management in the Intersecting Streams WRP area.

2. Planned environmental water

Planned environmental water (PEW) represents the volume and flow characteristics that existed at the establishment of the Basin Plan settings for the Sustainable Diversion Limits (SDLs) and water recovery for the environment. The efficient and effective use of the Commonwealth water holdings are predicated on PEW being protected as per the intention of the Basin Plan (s10.28). Any changes which reduce the protection of PEW could increase the risk to priority environmental assets and the capacity of the CEWH to support targeted outcomes in the Intersecting Streams WRP area. To provide certainty to the management and protection of environmental water, further refinement of operational arrangements, improved transparency and clarification may be necessary. Suggestions to this effect are provided below.

Interstate trade

The draft unregulated WSP⁵ includes new provisions that enable the interstate transfer (from NSW to Queensland) of licences and/or allocations. The introduction of these new provisions enabling interstate trade have not been considered within the Risk Assessment.

The introduction of new trade provisions that enable increased diversions in the upstream reaches of Intersecting Streams in Queensland has the potential to impact on the flow improvements achieved through water recovery in Queensland—particularly in the Culgoa and Narran rivers—potentially eroding PEW. Any movement of entitlements upstream could result in reduced flow in river reaches, exacerbating the risks to water available for the

⁴ Basin Plan Commitments Package – Clause 2(d)

⁵ Draft Unregulated Intersecting Streams WSP – Clause 63(2), Clause 63(3)

environment, and the capacity to meet environmental water requirements of priority ecological assets⁶. For example, in small unregulated flow events, environmental water from Commonwealth entitlements in the Lower Balonne helps flow penetrate further down the distributary channels and achieve connection with the Barwon-Darling. Additional extraction in Queensland could reduce these benefits.

The CEWH is concerned that untethered trade of licences into Queensland may lead to reduced water availability and reliability of unregulated access licences in the Intersecting Streams WRP area; this includes Commonwealth held licences on the Warrego River at Toorale.

Any provisions introduced within the unregulated WSP to implement Basin Plan trade rules⁷ should include a mechanism for giving consideration to restrictions to protect the reliability of existing water licence holders and to ensure that the operation of the plan does not compromise environmental watering requirements.

The CEWH requests:

- the WRP risk assessment includes consideration of impacts from interstate trade on the capacity to meet environmental watering requirements and the reliability of existing Queensland entitlements; and
- that a mechanism is included as part of the new trade provisions to enable allowable restrictions consistent with Basin Plan s12.08, and as a risk mitigation strategy to ensure that the environmental watering requirements of priority environmental assets are not compromised (Chpt 10, Part 9; s10.17).

⁶ Basin Plan – s10.17

⁷ Basin Plan – s12.28

3. Operational strategies and transparency

Community advice on the management of environmental water

The Department has successfully convened Environmental Water Advisory Groups (EWAG) in many NSW valleys for a number of years. The 'toolkit' following the Northern Basin Review includes coordination of flows in the Northern Basin⁸. It is recommended that a mechanism be established for regional input to environmental water decisions. This would build shared knowledge, understanding, and foster stakeholder ownership of water management decisions.

The CEWH suggests establishing an EWAG for NSW northern unregulated rivers, including the Intersecting Streams, and to include community representation from the Lower Balonne in Queensland. This would enable stakeholder input to guidance on the management of PEW and HEW in the Intersecting Streams, and improve transparency, including management of the water infrastructure at Toorale National Park.

To enhance understanding and transparency in regional environmental water management, the CEWH encourages the Department to:

- establish an EWAG for NSW northern unregulated rivers, including the Intersecting Streams and the Barwon-Darling; and
- establish transparent management and accounting arrangements at Toorale to provide for monitoring and formal reporting of PEW, as required under the Basin Plan (s10.46, Schedule 12, s13.14).

⁸ The Northern Basin Review, MDBA 2016 – Appendix B (D), pg. 52

4. Other matters

Aboriginal cultural access licence

The CEWH supports improving water access and outcomes for Indigenous people and addressing the social and economic impacts of the Murray Darling Basin, in accordance with the Basin Plan Commitments Package⁹.

As agreed by Basin government in the Basin Plan Commitments Package, the CEWH encourages further consideration of the opportunities through the WSP and WRP to improve water access and outcomes for Indigenous communities in the Murray-Darling Basin.

⁹ Basin Plan Commitments Package – Clause 3

PART B: STATE-WIDE ISSUES

5. Public assurance of best available information

Hydrological models are a foundational tool for informing decision-making, and it is important that there is confidence in the resulting information. Models can provide “best available” information, but quality assurance requires a transparent and independent process of evaluation. A public statement of assurance presenting an independent evaluation of the models (e.g. BDL and SDL model scenarios) being used to support consideration of key policy and operational issues would provide increased confidence in the modelling information, and importantly minimise dispute in instances of SDL non-compliance. The evaluation should be consistent with the criteria provided within the MDBA WRP position Statement 3C.

It is requested that a statement of assurance of the Intersecting Streams planning model covering the regulated and unregulated river systems be attached to the WRP as non-accredited supporting material.

6. Make good actions in response to SDL non-compliance

The draft regulated WSP¹⁰ specifies that the take of environmental water through licences managed by the CEWH are not to be included in the assessment of Annual Permitted Take (SDL).

The draft regulated WSP¹¹ also specifies the actions to be taken following the non-compliance with either the ‘long-term average annual extraction limit’ or the ‘cumulative annual extraction limit’. The restorative actions specified in the draft regulated WSP¹² provides the Minister with the authority to restrict the available water determinations of particular entitlement classes following breach of extraction limits. The CEWO notes that the application of restorative actions for SDL compliance that restrict allocation against HEW may not be effective in bringing extractive take back into compliance with the SDL. Rather, it may constrain the ability of the CEWH to access water and mitigate the environmental impacts from any growth in water extraction. As a principle we believe restorative actions should target the source of SDL non-compliance. Treatments applied to address non-compliance should be demonstrated to be effective in returning take under the SDL back into compliance.

It is requested that:

- the Department consider whether the restorative actions specified in Clause 31 of the draft regulated WSP should be revised to explicitly refer to entitlements within the SDL; and

¹⁰ Draft Intersecting Streams Unregulated WSP – Clause 29B

¹¹ Draft Intersecting Streams Unregulated WSP – Clause 31

¹² Draft Intersecting Streams Unregulated WSP – Clause 31

- an amendment be made to Clause 29C(1) of the draft unregulated WSP to “Following the calculation under clause 29A and 29B at the end of each water year...”.

7. Monitoring, Reporting and Accounting

The Basin Plan requires monitoring and formal reporting on the use of environmental water, relating to both planned and held environmental water¹³. This responsibility for reporting water accounting information extends to both state governments and environmental water holders.

The CEWH notes that the Transition Period Water Take report 2017-18 has identified ‘inaccuracies in environmental data’, issues with environmental water accounting and supports further work towards building a best practice in environmental water accounting¹⁴.

The methods used for environmental water accounting reflect the type and scale of operations for the management of environmental water delivery. Environmental water extracted from the river and pumped into a wetland is metered in the same manner as irrigation water take. Environmental water delivered through irrigation channels is accounted to the same standard as required by irrigation water delivery. The accounting of environmental flows through the river system are reliant on the same services and standards as applied to bulk water management. Environmental water accounting, irrespective of the method used is reliant on the services provided by external parties and the oversight provided by the Department as the state regulatory authority.

As with all forms of water take, we encourage on-going improvement in the accuracy, reliability and credibility of environmental water accounting information. We look forward to continuing to collaborate with the Department to establish a program of work for improving the monitoring, reporting and accounting of environmental water use, related to the on-going improvement in PPM implementation.

We request that the WRP refers to a process for continuous improvement in environmental water accounting through the development of operational procedures to give effect to State and Commonwealth reporting obligation under the Basin Plan (s10.46, 13.14, Schedule 12).

It is requested that text within the WRP (with respect to Basin Plan s10.46) is included that outlines a commitment by the Department to the on-going improvement in the methods and practices underpinning environmental water accounting, to provide public accountability in the management of all water resources.

¹³ Basin Plan - s10.46, Schedule 12, s13.14,

¹⁴ MDBA Transition Period Water Take Report 2017-18, p. 163-164

8. Extreme events

The draft Intersecting Streams WRP includes measures in response to extreme events that aims to provide transparency in water resource sharing during extreme events¹⁵.

We believe that the critical environmental needs that would be supported by operational procedures during critical dry periods are not sufficiently defined to guide water resource priorities relevant to each critical stage and to enable an assessment of residual risk from operational decisions.

The Intersecting Streams LTWP could support the implementation of the IRG by defining the critical environmental needs, and by including explicit cross references between both documents. Further, including a reference to how PEW would be treated during periods of water shortage and WSP suspension would create certainty how critical environmental needs are met during critical dry periods. Stage 2 management actions outlined in the draft Intersecting Streams WRP include the use of measures such as block water deliveries. Operational measures under extreme conditions are necessary to maintain security of supply, however these may have undesirable environmental consequences by reducing hydrological connectivity and water quality within refuge habitat. Procedures for the management of block releases and other operational measures would benefit from being documented within a procedures manual, in association with strategies for mitigating potential environmental risks under extreme events.

The following inclusions are suggested to strengthen the Intersecting Streams WRP extreme events management process and implementation of the NSW Extreme Events Policy:

- explicit reference to the LTWP during critical periods, in particular the critical environmental watering requirements; and
- outline the process for documentation of operational procedures and assessment of risk associated with water resource management during extreme events.

To provide increased certainty in the management of extreme events, we would also suggest:

- that a communications and engagement plan is disseminated at the earliest opportunity indicating how water licence holders will be consulted during critical periods; and
- detailed information is included in the measures in response to extreme events that outlines the process for reinstating resource allocations as conditions improve and criticality decreases.

¹⁵ Draft Intersecting Streams WRP – Table 5-3. Extreme event stages of criticality

9. Water Quality Management Plan

The WQMP aims to provide a framework to protect, enhance and restore surface water quality, supporting the draft Intersecting Streams WRP and draft Intersecting Streams LTWP.

The CEWH notes that due to insufficient information¹⁶ various risk assessments have not been undertaken for several types of water quality degradation outlined in the Basin Plan¹⁷ including hypoxic low flow and blackwater events, water temperature outside of natural ranges, elevated pathogen counts, and elevated levels of pesticides and other contaminants. These risks have the potential to negatively impact environmental outcomes and should be assessed to provide assurance that the mitigation strategies in the WQMP will meet the requirements of the Basin Plan (Chapter 10, Part 7). We encourage the Department to consider including within the WRP a requirement for periodic reassessment of water quality risk as a key mitigation strategy.

The following changes would strengthen the WQMP for the protection of planned and held environmental water:

- include a mechanism for the periodic review of emerging and existing risks to provide for the effective treatment of risks; and
- include explicit links between the WQMP and other WRP documents i.e. IRG and LTWP.

¹⁶ Water Quality Management Plan – Table 3-1, Table 4-3

¹⁷ Basin Plan 2012 – Chpt 9, s9.02

Email address	[REDACTED]
Name of respondent	Rory Treweeke
Address	[REDACTED]
Contact phone number	[REDACTED]
Are you an individual or representing an organisation?	Individual
Proposed changes to the Water Sharing Plan for the Intersecting Streams Unregulated River Water Sources 2011	
Do you have any comments on the proposed change to make the interstate trade clause clearer?	I doubt that any NSW water users will agree to any trade upstream to Queensland that would reduce the amount of water flowing into NSW
Do you have any other comments on the Water Sharing Plan for the Intersecting Streams Unregulated River Water Sources 2011?	It is an extremely clumsy mechanism to lump all streams from the Paroo to the Moonie in one WRP with insufficient teasing out of the characteristics of each stream and putting in place the appropriate measures for each stream. The effluent streams of the Lower Balonne which are subject to controls at St George in Queensland, must be managed on an event basis and there must be far greater co-operation between NSW & Q'ld in the operations in this system. At present NSW is a mendicant recipient of what water Q'ld deems sufficient for the streams below the border and history over the past thirty plus years demonstrates that this is insufficient for the health of the Lower Balonne streams in NSW. Neither the Narran Lakes nor the Barwon River are receiving sufficient water.
Response to chapter 2: Water resource plan area and other matters	
Do you have any comments on chapter 2 or appendix A?	There needs to be joint works done between NSW/Q'ld to improve end of systems outcomes in the Lower Balonne which remains the most overallocated valley in the Murray-Darling Basin. Long Term Averages (LTAAEL's) are totally useless, with Event Management being the only practical management process with appropriate trigger points built in so that accurate antecedent conditions are accounted for so that the gaps between end of system flows is reduced. Development has seen these gaps between flows blow out to totally unacceptable levels threatening the ecological character of all of these rivers in NSW and depriving landholders on the lower reaches of stock and domestic water - which must be a priority under the Water Management Act 2000.
Response to Chapter 3: Risks to water resources	

<p>Do you have any comments on chapter 3 or Schedule D?</p>	<p>Re 3-1 15. Clearly nothing has been done under this action. With excess extractions in Queensland the environment is not being treated with the priority it is due.</p>
<p>Response to chapter 4: Environmental water, cultural flows and sustainable management</p>	
<p>Do you have any comments on the protection of environmental water?</p>	<p>The map of flooding extent on the Narran River is grossly inaccurate as water flows both east and west of Lightning Ridge across many thousands of hectares before some re-entering the Narran above the Narran Lakes and some entering the Barwon river via the Big Warrambool.</p> <p>4.4 This is pure padding as the only bifurcation that can be operated to alter flow is No 1. All the others are fixed sheet pile weirs with appropriate slots to distribute water between the effluent streams up to a flow rate of 1200ML/D at St George. Above that flow rate they drown out and natural flow distribution takes over.</p> <p>As there are no active licences in NSW on these streams there is nothing that can be done to manage 'flow delivery'.</p>
<p>Response to chapter 5: Take for consumptive use</p>	
<p>Do you have any comments on the extreme events information provided in section 5.7 of the WRP?</p>	<p>Given NSW gets what Qld allows there is nothing that NSW can do unless it can persuade Qld to provide more water from Beardmore Dam (or reduce the amount captured in Beardmore) when an extreme event is threatening. The current Lower Balonne Water Plan has trigger points of twelve months between certain flow types before restrictions on extractions operate - these should be lessened to 6 or 9 months and sufficient water released to ensure end of system flows in each stream.</p>
<p>Response to chapter 6: Water Quality Management</p>	
<p>Do you have any comments on chapter 6 or the Water Quality Management Plan (Schedule G)?</p>	<p>Totally dependent on land management practices. Salinity levels are currently good.</p>
<p>How did you hear about the Public Exhibition of this plan?</p>	
<p>Please let us know how you heard about the opportunity to make a submission?</p>	<p>Department of Industry website</p>
<p>Additional Information</p>	
<p>I give permission for my submission to be publicly available on the Department of Industry website</p>	<p>I consent to my "submission" being published on the department's website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in</p>

the submission will be published.



Healthy Rivers Dubbo



Submission to draft NSW Great Artesian Basin Shallow Water Resource Plan

To: NSW Government

Department of Industry

By e-mail: intersectingstreams.sw.wrp@dpi.nsw.gov.au

FROM:

Email address:



Name of respondent:



Address:



Contact phone number:



Are you an individual or representing an organisation: Organisation

Name of organisation: Healthy Rivers Dubbo (HRD)

Who do you represent: Peak representative organisation

Who do you represent: Environment

I give permission for my submission to be publicly available on the NSW Department of Industry website: Yes

I would like my personal details to be kept confidential: Yes

Draft Intersecting Streams Water Resource Plan

Introduction

Healthy Rivers Dubbo is a community grass roots group dedicated to providing a strong voice for our local rivers and wetlands, and for the Murray-Darling Basin as a whole. As ambassadors for healthy

rivers, wetlands and groundwater, we have been active in our community calling for transparency and accountability in all aspects of water management.

Healthy Rivers Dubbo pays our respects to the Traditional Owners, past, present and future, of the land we live on. We acknowledge that the land on which we live was never ceded.

Healthy Rivers Dubbo welcomes the opportunity to make a submission to the draft Intersecting Streams Water Resource Plan (WRP).

Consultation

Of the eight First Nations groups who have country with the WRP area, only two groups – The Gomeroi and The Ngemba were consulted. Given this significant lack of consultation, this WRP should not yet be on display.

HRD has very low confidence that the NSW government has represented itself respectfully and appropriately with First Nations in relation to use of water from the intersecting streams resource.

Risk Assessment

Climate Change:

HRD is extremely concerned that the risk of climate change on this water source is considered low in any water source in this WRP.

The planet's average temperature has already risen 0.9 ° C. The most exhaustive global analysis of rainfall and rivers was conducted by a team led by Professor Ashish Sharma at Australia's UNSW (University of New South Wales) in Sydney. It relied on actual data from 43,000 rainfall stations and 5,300 river monitoring sites in 160 countries. ¹

This study has shown that rainfall in already dry environments (like the environment of most of this WRP area) has decreased, and that the incidents of small to medium floods for all rivers has reduced by 10 – 15% per degree rise in average temperature. The global average temperatures are on track to increase further.

Even in wetter areas where rainfall has increased, because of the high impact of evaporation on parching soils, rivers are in decline around the globe.

The draft **Assuring Future Urban Water Security**² document produced by NSW DPI Office of Water in 2013 finds from a pilot study that by 2030 we can expect “reductions of almost 30% for the 3 inland utilities in mid and southern NSW”. This includes a 50% reduction in one spot!

The data is in about the impact of climate change on rivers and streams, ignoring it constitutes a breach of the Commonwealth Water Act 2007, and puts the environments and communities of inland NSW at extreme risk.

¹ <https://newsroom.unsw.edu.au/news/science-tech/long-dry-global-water-supplies-are-shrinking>

² http://www.water.nsw.gov.au/_data/assets/pdf_file/0005/665609/assuring-future-urban-water-security-draft.pdf

Not-Tolerable Risks:

HRD considers the risks to water not being available for the many high value environmental assets in the WRP area as unacceptable. The rules proposed in this draft Water Sharing Plan (WSP) are not going to be able to manage these risks.

SECTION 4.3 RISKS TO WATER AVAILABLE FOR THE ENVIRONMENT & CAPACITY TO MEET EWRS [E(W)] - UNREGULATED WATER SOURCES

44 of the 96 water sources within the WRP area are currently classified with a risk rating of not-tolerable.

SECTION 4.4 RISKS TO WATER AVAILABLE FOR THE ENVIRONMENT FROM EXTRACTION UNDER BLR [E(BLR)] - UNREGULATED WATER SOURCES ONLY

All 9 of the water sources listed under this risk have a risk rating of not-tolerable, 8 of them are high risk not-tolerable. This is extremely concerning.

SECTION 4.5 RISKS TO WATER AVAILABLE FOR THE ENVIRONMENT FROM INTERCEPTION ACTIVITIES

14 of the 25 of the water sources listed under this risk have a risk rating of not-tolerable.

SECTION 4.6 RISKS TO WATER AVAILABLE FOR THE ENVIRONMENT DUE TO CLIMATE CHANGE

8 of the 12 water sources listed under this risk have a risk rating of not-tolerable - climate change impact is here now and is definite across all water sources.

SECTION 5.3, 5.4, 5.5 RISKS TO THE HEALTH OF WATER DEPENDENT ECOSYSTEMS FROM POOR WATER QUALITY

16 of the 32 water sources listed under this risk have a risk rating of not-tolerable.

SECTION 7.3 RISKS TO WATER AVAILABLE FOR OTHER USES DUE TO INTERCEPTION ACTIVITY

The risk to this WRP area water sources from floodplain harvesting is considered low, and quotes: "Floodplain harvesting is restricted by the LTAAEL as all unregulated water take (including FPH) in the Intersecting Streams WRPA is licenced."

See below section **Floodplain Harvesting** (FPH) for details about our serious concerns about the impact of floodplain harvesting. HRD considers the risk of current and future increases to FPH take should be not-tolerable.

SECTION 7.4 RISKS TO WATER AVAILABLE FOR OTHER USES DUE TO CLIMATE CHANGE

Only 4 of the 9 water sources listed under this risk show as not-tolerable. HRD is very concerned that this risk assessment assigns more risk to water availability from climate change impacts to the environment than it does to other uses.

Strategies to manage risks:

As an organisation that represents the environment, a study of the strategies to manage risk in this draft WRP leads us to conclude the strategies to manage risk are focused on providing certainty for water users over protection of the environment.

The strategies to manage risk in this draft WRP are inadequate, and will not meet the objectives of the Basin Plan.

The very high percentage of risks classes as not-tolerable will only be mitigated through improvements to the Planned Environmental Water (PEW) rules in this WRP. The current rules for protecting PEW are inadequate, and must be improved during the development of this draft WRP.

Floodplain Harvesting (FPH)

HRD does not support the licencing of floodplain harvesting in this water source. All capture of floodwaters should be prohibited.

The draft WSP Cl 15 (2) (c) defines PEW as water that is not committed after the commitments to basic landholder rights and for sharing and extraction under any other rights have been met. The provision for new access licences in the draft WSP is a net reduction in the protection of PEW. A reduction of PEW is not allowed under the Basin Plan (as per Basin Plan 10.28 "No net reduction in the protection of planned environmental water").

HRD does not support the draft WRP at 4.5.1 demonstrating no net reduction in the protection of PEW.

Clearly, the long-term average annual planned environmental water under this plan (schedule A) will be less than the long-term average annual planned environmental water that was in place at 23 November 2012 if new FPH licences are granted.

Interstate Trade

HRD is very concerned that there is a proposal in this draft WRP to include provisions for interstate trade with Queensland. Extraction in Queensland is already having a considerable impact on this water source - provisions for interstate trade will exacerbate problems in the water source that are already considered intolerable in this documents' own risk assessment.

The risk assessment in this WRP identifies high risk to water availability to the environment from base flows and low flows in the Culgoa and Warrego Rivers. Strategies for managing these risks are compromised by extraction in Queensland. Allowing any transfer of water upstream to Queensland can only further exacerbate risks that are already high.

HRD is strongly opposed to the minor change to the wording of the WSP amendment provision relating to interstate trade. "Trade will only be progressed in water resource planning if NSW water users are interested in interstate trade." The environmental impacts of trade should be the determining factor, not user preference. We consider this to be an example of the NSW government preferencing the wants of users over the needs of the environment.

Assessment of compliance with LTAAEL

WSP CI 29 (1) seeks to allow for compliance with LTAAEL to be assessed over a five year period. HRD strongly disagrees with this proposal, and considers consistency of compliance to LTAAEL remain at three years rolling average across all water sources in NSW.

All models used to inform decisions should be up to date and accredited against standards. There should be no change to the baselines, rules and assumptions without a systematic, independent and publicly available review (as per Basin Plan 10.49: "A water resource plan must be based on the best available information.").

HRD considers assessing compliance over five years instead of three to be a reduction in the quality of available information, thus will not satisfy the requirements of the Basin Plan.

Connectivity

The Barwon Darling is an ecosystem in crisis³.

All WRPs for tributaries to the Barwon Darling must do more than they currently do to ensure connectivity to downstream systems and wetlands.

Visible flow heights must be protected, along with first flush flows in all intersecting streams.

Planned Environmental Water (PEW) and Held environmental Water (HEW) need protection with stronger rules in the WSP.

FPH has a significant impact on downstream aquifer recharge and flow connectivity, HRD strongly opposes provisions in the draft WSP that will allow FPH to be licenced in this water source.

If surface flows are protected, this will also benefit groundwater systems that are hydraulically connected.

This draft WSP needs to include rules that protect, maintain and enhance connectivity with the Barwon-Darling River, and include connectivity as an objective of the WRP.

High Ecological Value Aquatic Ecosystems (HEVAE) and Protection of Environmental Water

This draft WRP identifies 914 HEVAEs and 20 key hydrological indicator sites in the intersecting streams area. The area clearly has important environmental and cultural significance within the Murray Darling Basin.

It is a contradiction within this WRP that in most regions in this WRP area, shortfalls for environmental watering have been identified (up to 795 GL is still required), and yet this WRP proposes no strengthening to rules protecting HEW, and inadequate rules to protect PEW.

CI 45 shows that flow classes have only been instated in management zones in the Narran River. This is unacceptable. All the river systems that make up the Intersecting Streams water source and have access licences extracting water must have nominated flow classes with access rules.

The draft WSP CI 15 (2) (a) defines PEW as the commitment of the physical presence of water in these water sources. HRD considers the protection of visible low flows in this water source as a

³ <https://www.nrc.nsw.gov.au/2018-2019-wsp-reviews>

critical element of protection of PEW. The low flow heights provided in CI 45 Table A are inadequate for protecting instream ecological values and key hydrological indicators.

HRD does not support the NSW Government position that the current environmental protection rules in the draft WRP should remain unchanged until the end of the initial WSP ten year lifespan. This will prevent the draft WRP from meeting its objectives. (as per Basin Plan s10.26: (1): "A water resource plan must provide for environmental watering to occur in a way that: (a) is consistent with: (i) the environmental watering plan; and (ii) the Basin-wide environmental watering strategy; and (b) contributes to the achievement of the objectives in Part 2 of Chapter 8").

The lack of rules protecting HEW that enters the system from Queensland is a major failing of this WRP. All environmental water ('planned' and 'held' under entitlement) must be protected within and between valleys, including over state borders (as per recommendation 10 and 11 of the MDBA's Murray Darling Basin Water Compliance Review, Recommendation 10 of the independent Review Panel's report (Nov 2017), and Chapter 5 of the Independent investigation into NSW water management and compliance interim report (Ken Matthews, Sept 2017).

Water Quality Management Plan (WQMP)

Risks to aquatic ecosystems in this water source include salinity, turbidity, total nitrogen, total phosphorous, dissolved oxygen and pH. As identified above in the section **Not-Tolerable Risks**, the number of these high intolerable risks is very high.

The most important way to reduce the risks to water quality in unregulated intersecting streams is to protect low flows above no visible flows and pool habitats.

HRD is concerned there is not enough information available for all areas of the water source for the objective of the WQMP to *Protect, maintain or enhance connectivity between water sources to support downstream processes including priority carbon and nutrient pathways.*

All models used to inform decisions should be up to date and accredited against standards. There should be no change to the baselines, rules and assumptions without a systematic, independent and publicly available review (as per Basin Plan 10.49: "A water resource plan must be based on the best available information.").

HRD feels more needs to be done to gather and collate scientific and cultural data so that the rules in this draft plan are based on the best available information.

Conclusion

The current water access rules cause prolonged no flow and drought conditions in this water source, prohibiting the maintenance of flow connectivity, re-oxygenation of pools, flushing of poor water quality and providing fish passage.

Healthy Rivers Dubbo is very concerned that this draft Water Resource Plan appears to favour extractive users over the environment, often in contradiction with its own risk assessment.

The purpose of the Basin Plan and the draft WRPs is to improve the health and functionality of water sources in the Murray Darling Basin, we regretfully conclude that this WRP will not meet the requirements of the Basin Plan.

For more information please contact:

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Thursday 29 August 2019

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SUBMISSION
Draft Intersecting Streams Water Resource Plan

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.

IRN appreciates the opportunity to comment on the draft Intersecting Streams Water Resource Plan (draft WRP).

Background

IRN submitted substantial comments to the Status and Issues Paper on the Intersecting Streams WRP released in 2017.

IRN has taken a great interest in water management in the Barwon-Darling Intersecting Streams system because of the national and international environmental significance of the environmental values in this water source area and the importance of the connectivity with upstream and downstream water sources.

We raised that the environment values in the Intersecting Streams are very high and need to be better protected. We do not consider that the draft WRP has achieved this improved protection.

The high risks to water availability for environmental assets and to water quality will not be managed through the rules in the draft Water Sharing Plan (WSP).

IRN is very concerned that the risk management strategy states that NSW planning principles prevent the mitigation of high risks to water availability to the environment because there is an emphasis on providing certainty for water users.

This bias towards extractive industries threatens the ability of the draft WRP to meet the objectives of the Basin Plan.

The unwillingness to change draft WSP rules to better protect environmental flows impacts on the capacity to improve water quality, instream health and improve the resilience of high value environmental assets.

The lack of rules to protect held environmental water (HEW) entering the system from Queensland is a major failing of the WSP.

IRN does not support the NSW Government position that the current environmental protection rules in the draft WSP should remain unchanged until the end of the initial WSP ten year lifespan. This will prevent the draft WRP from meeting its objectives.

IRN raised concern about the one area where a rule change is proposed, that is to include provisions for interstate trade with Queensland. We strongly oppose this rule change because of the level of impact that extraction over the border is already causing in this water source.

IRN does not support the licencing of floodplain harvesting in this water source. All capture of floodwaters should be prohibited.

We raised the importance of consultation with First Nations people and are concerned that consultation has occurred with only two Nations of the eight Nations with country in the WRP area. The draft WRP should not be on exhibition for comment with this significant gap in consultation and information.

IRN does not support the draft WRP and accompanying WSP because they have failed to address any of the issues we raised in our submission to the Status and Issues Paper. The ongoing information gaps and failure to adequately protect the environmental values supported by this surface water source must be addressed.

High Value Environmental Assets

The draft WRP identifies that this water source contains 914 key environmental assets and 20 key hydrological indicator sites. This demonstrates the environmental significance of the Intersecting Streams within the Murray-Darling Basin (MDB).

IRN notes that most of the regions in the water source have a shortfall in identified environmental watering requirements. Up to 795 GL is still required to meet these requirements.

It is critical that the draft WSP contains rules to protect HEW so that the watering of key environmental assets can be achieved.

The current rules to protect planned environmental (PEW) water are inadequate and must be improved during the development of this draft WRP.

Cl 45 shows that flow classes have only been instated in management zones in the Narran River. This is unacceptable. All the river systems that make up the Intersecting Streams water source and have access licences extracting water must have nominated flow classes with access rules.

IRN considers the very low flow heights provided in Cl 45 Table A to be inadequate for protecting instream ecological values and key hydrological indicators.

Having a very low flow class of no visible flow and a commence-to-pump rule of visible flow in most of the Intersecting Streams is inadequate protection of environmental values.

The draft WSP Cl 15 (2) (a) defines PEW as the commitment of the physical presence of water in these water sources. IRN considers the protection of visible low flows in this water source to be a critical element of protection of PEW. The long-term average annual extraction limit (LTAAEL) and reference to any water not committed for extraction, are definitions of PEW that fail to maintain or improve the health of these unregulated river systems.

The current water access rules cause prolonged no flow and drought conditions in this water source prohibiting the maintenance of flow connectivity, re-oxygenation of pools, flushing of poor water quality and providing fish passage.

There must be visible flow heights protected in all unregulated rivers that intersect the Barwon-Darling system. First flush flows must also be protected in all the Intersecting Streams. These rule changes will improve connectivity with the Barwon-Darling and improve the health and resilience of these important water sources.

Improved protection of surface flows will also benefit groundwater systems with significant hydraulic connectivity.

IRN has lodged submissions to the various draft groundwater WRPs associated with the Intersecting Streams water source. We have identified that water management provisions in those groundwater sources fail to protect risk to groundwater dependent ecosystems, including base flow, riparian vegetation and instream ecological values.

The purpose of the Basin Plan and the draft WRPs is to improve the health and functionality of water sources in the MDB. The failure to protect low flows in the Intersecting Streams through improved rules in the draft WSP is a failure to meet the objectives of the WRP process.

High risks to water availability and water quality for environmental assets in this water source have been identified. The rules in the draft WSP will not mitigate these risks.

Floodplain Harvesting

IRN does not support the provisions in the draft WSP to licence floodplain harvesting (FPH) in this water source. Any FPH activities not covered by unregulated access licences should not be permitted.

The draft WSP Cl 15 (2) (c) defines PEW as water that is not committed after the commitments to basic landholder rights and for sharing and extraction under any other rights have been met. The provision for new access licences in the draft WSP is a net reduction in the protection of PEW.

IRN does not support the draft WRP at 4.5.1 *Demonstrating no net reduction in the protection of PEW*¹.

The long-term average annual planned environmental water under this plan (schedule A) will be less than the long-term average annual planned environmental water that was in place at 23 November 2012 if new FPH licences are granted.

FPH has significant impact on downstream environmental assets, aquifer recharge, flow connectivity, volume of river freshes and downstream water users.

¹ Draft WRP p 32

The importance of flow connectivity from Intersecting Streams to the Barwon-Darling water source is critical and must be protected from opportunistic extraction through FPH.

Interstate Trade

IRN opposes the proposed change in the draft WSP to allow for future provisions for interstate trade into and out of the Intersecting Streams water source.

The risk assessment identifies high risk to water availability to environmental assets from base flows and low flows in the Warrego and Culgoa Rivers. The strategy for managing these high risks is compromised because of the extraction upstream in Queensland.

Any transfer of water upstream to Queensland will further exacerbate these high risks.

An increase in the volume of environmental water and strong rules to protect both HEW and PEW is the key solution to mitigating the rapid increase of consumptive take in Queensland.

IRN objects to the draft WSP Cl 63 and maintains that the full prohibition of interstate transfer of access licences and assignment of water allocation must be maintained.

We note that the draft WRP indicates that a framework to allow for interstate trade, as well as administration arrangements between the states will be progressed further only if requested by water users and there is sufficient interest to warrant the investment by both states.

Also that *‘Trade will only be progressed in water resource planning if NSW water users are interested in interstate trade.’*²

IRN considers it imperative that the environmental impacts of interstate trade be the key reason for maintaining a prohibition.

Assessment of compliance with LTAAEL

IRN does not support draft WSP Cl 29 (1) that allows for compliance with LTAAEL to be assessed over a five year period.

IRN considers that consistency of compliance to LTAAEL should be a three year rolling average across all water sources in NSW.

This will give much greater assurance that planned environmental water is protected.

Risk Assessment

The risk assessment for the Intersecting Streams water source has identified a number of high and medium risks to water availability to the high value environmental assets and hydrological values of this water source.

² Draft WRP p 33

Key mitigation measures for these risks in the draft WRP are inadequate and will not meet the objectives of the Basin Plan

Intolerable high risk must be mitigated through improvements to PEW rules in the draft WSP.

IRN does not support that the risk of climate change to this water source is low. The current severe drought is causing high risk to native fish populations, instream ecological values and all water dependent ecosystems.

Measures to mitigate the impact of prolonged drought must be developed as an integral part of the draft WRP.

Water Quality Management Plan (WQMP)

The WQMP identifies a number of high and medium risks to aquatic ecosystems in the Intersecting Streams water source through poor water quality. This includes salinity, turbidity, total nitrogen, total phosphorous, dissolved oxygen and pH.

The key mitigation measures for high and medium risks to water quality is the protection of low flow and pool habitats to prevent accelerated rates of drying, deterioration in water quality or loss of connectivity.

As previously indicated the rules in the draft WSP do not adequately protect low flows and connectivity.

IRN considers it imperative for the mitigation of high risks to aquatic ecosystems to be achieved. This can only occur through better protection of low flows above no visible flow in all rivers within the Intersecting Stream water source.

The background material provided with the Intersecting Stream Issues and Status Paper included that *'a body of evidence suggests low flows are essential for maintaining water quality, allowing passage over riffles for fish and other fauna to pools used for drought refuge, maintaining those parts of aquatic ecosystems that are most productive. For example, the faster flowing riffle areas between pools usually contain the highest abundance and diversity of aquatic fauna. Although many streams will naturally stop flowing in dry times, it is the increased frequency and duration of drying as a result of extraction that has the potential to impact on stream ecosystems'*.³

We are concerned that consideration of Water Quality objective WQ9 to *Protect, maintain or enhance connectivity between water sources to support downstream processes including priority carbon and nutrient pathways* has knowledge gaps in all areas of the water source.

The protection, maintenance and enhancement of connectivity with the Barwon-Darling River is an essential requirement of the WRP development process. It is disappointing that this draft WRP fails to achieve this important objective.

³ Water Sharing Plan for the Intersecting Streams Unregulated and Alluvial Water Sources – Background document p 4

It is imperative that a functional level of PEW is protected in WSP rules, as well as rules to protect HEW in all rivers within the Intersecting Stream water source.

Conclusion

IRN does not consider that the draft Intersecting Streams WRP will meet the requirements of the Basin Plan.

The proposed changes to WSP rules will not protect planned environmental water, achieve management of risk, or improve water quality.

For more information please contact:

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