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**SUBMISSION**  
**Draft Barwon-Darling 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 Barwon-Darling Water Resource Plan (draft WRP).

**Background**

IRN submitted substantial comments to the Status and Issues Paper on the Barwon-Darling WRP released in 2017.

IRN has taken a great interest in water management in the Barwon-Darling River 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.

Because the Barwon-Darling is the key connector between the Northern and Southern Basin, improved management of flows through this system and restoration of river health is critical to achieving the outcomes of the Basin Plan.

There are 65 key environmental assets including wetlands and lakes, migratory bird breeding sites and reserves in the WRP area and 3 hydrological indicator sites that play an important role in assessing the implementation of the Basin Plan.

We raised that the environmental values in the Barwon-Darling are very high and need to be better protected. We do not consider that the draft WRP has achieved this improved protection.

The Natural Resources Commission (NRC) Review of the Barwon-Darling Water Sharing Plan (WSP) concluded that the water source is an ecosystem in crisis.

While commendable amendments to the draft WSP rules have been made including the resumption of flow rule, revision of flow class thresholds, introduction of Individual Daily Extraction Limits (IDELs or IDECs in the WSP) and the adoption of active management to protect environmental water, non-tolerable high risks to water availability for environmental assets and to water quality will not be adequately mitigated through the draft WSP.

Active management of environmental water must include the protection of environmental water crossing the border from Queensland and entering the Barwon-Darling from the Intersecting Streams.

The WSP has a targeted objective to support water-dependent ecosystem functions within this water source by protecting environmental watering events that have originated in upstream water sources.

IRN does not support interstate trade of water licences with Queensland.

The Active Management Policy has a significant exemption in allowing the extraction of water not covered by unregulated access entitlements. The take for basic rights, stock & domestic and town water supply could impact on over 23% of environmental water to be protected by this policy. This is unacceptable.

We note that Total Daily Extraction Limits (TDELs) have not been implemented in the draft WSP.

The WSP maintains the 300% carry over rule. This must be removed as a key mechanism of risk to the water source.

IRN does not support floodplain harvesting interception in the Barwon-Darling. The proposal to add the final assessed volume for licencing to the WSP Long term Average Annual Extraction Limit (LTAAEL) and the Sustainable Diversion Limit (SDL) will cause a failure of these mechanisms to mitigate the high level of assessed risk in the water source.

Floodplain harvesting within the Barwon-Darling should not occur because overbank flows provide important ecosystem function and have become very rare in the system.

The NRC recognised the importance of overland flows for river health, wetland and floodplain needs and downstream users' water supply entitlements.

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

We have raised the importance of consultation with First Nations people and are concerned that consultation has been completed with only two of the four Nations with country in the WRP area.

It is disappointing that consultation with the Barkandji and Murrawarri Nations has not yet been completed, particularly when the Barkandji people have native title rights over the WRP area. The draft WRP should not be on exhibition for comment with this significant gap in consultation and information.

IRN considers that the draft WRP has failed to address the many 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 critical water source must be addressed.

## **Risk Assessment**

The risk assessment for the draft WRP identifies an alarmingly high level of intolerable risk to the availability of environmental water and capacity to meet environmental watering requirements in the Barwon-Darling water source. There is also high risk to water quality across the water source.

The many not tolerable high and medium risks will not be mitigated. This is unacceptable and possibly not lawful under the Basin Plan.

There are economic, social and environmental impacts caused by a failure to mitigate risk to river health.

The risk assessment fails to identify the risk to inflows into the Barwon-Darling through poor water sharing rules in the upstream WSPs. This issue has been addressed in IRN submissions to the draft WRP for the Intersecting Streams, NSW Border Rivers, Gwydir River, Namoi River and Macquarie-Castlereagh water sources.

We note in the risk assessment that the current critical mechanisms include the LTAAEL, Available Water Determination (AWD) and the implementation of IDELS and TDELS.

The NRC is highly critical of the use of LTAAEL as an indicator of environmental outcomes. IRN considers that the LTAAEL in the Barwon-Darling is too high and is not able to mitigate intolerable risk to the water source

The AWD is impacted by flows arriving into the water source from upstream tributaries and should be much more conservative than past practice.

The IDELS and TDELS have not been implemented under the current WSP.

The new critical mechanisms include the Sustainable Diversion Limit (SDL) under the Basin Plan. The volume of SDL for the Barwon-Darling fails to meet many of the desirable ecological outcomes set by the Basin Plan. This mechanism will not mitigate risk to river health in this water source.

The new rules proposed in the draft WSP will go some way to preventing further ecological collapse. However, they do not mitigate the high intolerable risks.

We note that the river sections from Mungindi to Walgett and Brewarrina to Bourke are assessed as having a medium risk from extraction of basic landholder rights (BLR) and that no data is available for the river sections Walgett to Brewarrina, Bourke to Louth and Louth to Wilcannia.

The newly proposed Active Management Policy for protecting environmental water in this water source allows for BLR extraction from held environmental water (HEW) and planned environmental water (PEW) entering the system. Therefore, the risk from this form of take will not be mitigated by the new critical mechanisms.

The risk from floodplain harvesting interception is rated as medium. IRN does not support this rating or that the Healthy Floodplains Project will mitigate the high risk of this interception of important overbank flows in the Barwon-Darling.

We note that high and infrequent over bank flows are assessed as high to medium intolerable risk in many river sections. The interception of flood flows increases this risk and should be recognised as a high intolerable risk that must be addressed.

The risk to water available for the environment due to climate change has only been assessed for drown out flows at Bourke Weir. We note that the consequence of a dry climate scenario is severe and likely. This will be the case for the entire length of the Barwon-Darling, as experienced during the current severe drought. The risk is from climate change is high and intolerable.

The impact of climate change is not addressed by the Basin Plan, the draft WRP or rules in the WSP.

IRN considers that the draft WRP and rules in the amended WSP fail to mitigate the high level of intolerable risk in the Barwon-Darling water source.

## **Water Quality**

We note that the management of all high and medium risks to water dependent ecosystems from poor water quality is referred to the Water Quality Management Plan (WQMP).

The WQMP aims to provide a framework to protect, enhance and restore water quality that is fit for purpose for a range of outcomes that:

- Fulfil First Nation peoples spiritual, cultural, customary and economic values
- Protect and improve ecological processes and healthy aquatic ecosystems
- Provide essential and recreational amenities for rural communities
- Assist agriculture and industry to be productive and profitable

The WQMP demonstrates that water quality declines in the Barwon-Darling water source in the downstream river sections.

There are high and medium intolerable risks from turbidity, total phosphorous, total nitrogen, ph and dissolved oxygen in most of the river sections.

We do not support the risk assessment outcomes for blue-green algal blooms. These should be rated as high and intolerable.

We note that there are significant knowledge gaps in all areas for the following water quality objectives:

WQ 5 Maintain water temperature within target ranges that support water dependent ecosystems

WQ7 Reduce the mobilisation of toxicants and pesticides.

WQ8 Reduce contamination from pathogens into water sources.

WQ9 Protect, maintain or enhance connectivity between water sources to support downstream processes including priority carbon and nutrient pathways

The WQMP fails to recommend a strategy to fill these knowledge gaps or measure the possible significant impacts on water quality in the Barwon-Darling water source.

The key mitigation tools are the proposed changes to flow targets, implementation of IDECs, Active Management to protect environmental water and the adoption of the first flush rule in the WSP.

IRN considers that the volume of water extraction, including floodplain harvesting, is too high in this water source and is the main driver of poor water quality. Until this key issue is properly addressed the ecological function of the Barwon-Darling will remain under threat.

The WSP has a targeted environmental objective to protect and, where possible, enhance water quality within target ranges for this water source to support water-dependent ecosystems and ecosystem functions over the term of the Plan.

IRN considers that proposed water management in the Barwon-Darling WSP will fail to meet this targeted objective.

### **Proposed WSP Rule Changes:**

IRN considers that the many positive proposed amendments to the WSP may assist in addressing the damage to the ecosystem caused by the excessive extraction allowable under existing WSP rules. Whether the rule changes provide adequate resilience to turn around the ecological collapse of the Barwon-Darling and Lower Darling water sources remains to be seen.

#### **1. Revision of commence and cease to pump (CTP) rules**

IRN strongly supports the proposal to amend A class licence access to low flows following the recommendations of the NRC Review to meet environmental water requirements for base flow protection.

It is noted that the proposed rule change will result in an estimated increase of low flows at Wilcannia by 4.2% of the 30-350 ML/day flow range and only 0.5% of the 350 -1400 ML/day flow range.

This may not be adequate. A serious consideration of removing A class licence access should be part of future planning. It would be preferable for these entitlements to be purchased and managed as cultural flows with First Nations people.

IRN also supports that changes to B class and C class access CTP thresholds be revised in preparation for the 2023 remake, as recommended by the NRC

It is critical for the reduction of high intolerable risk to the ecological condition of this water source that important hydrographical flow levels remain instream.

#### **2. Removal of imminent flow provisions**

IRN strongly supports the removal of this provision that allows for water to be taken below CtP thresholds when a flow is forecast. This has severely impacted on downstream low flow levels and other water users.

This amendment will allow for the better application of the first flush rule that is critical for improving the health of this damaged river system.

### 3. IDELs

IRN strongly supports the implementation of IDELs. A provision already exists in the current WSP and this water management action could have been adopted sooner.

We note that the term has been amended to Individual Daily Extraction Component (IDEC) with no explanation given for the cause of this change. Fact Sheets have identified the creation of confusion by this proposed change. It is preferable that the IDEL term be maintained to ensure clarity.

IRN strongly opposes the introduction of trading of IDELs. This will require the establishment of a new property right for trading purposes. IDELs should only be used as a management tool to ensure that the TDEL is met and that PEW and HEW within the Barwon-Darling is protected.

IDEL trading will further complicate water management and create a new market. Problems with the water trading market are being highlighted by water users and are now subject to an ACCC review.

IRN opposes cl 80 (b) that gives effect to dealings of IDECs under the Act

The share components of entitlements can be traded. This is an adequate level of dealings in this water source.

It is critical that the implementation of TDELS and IDELs result in a significant decrease in daily extractions rather than increased extractions.

### 4. TDELS

The implementation of TDELS should be included in the amended WSP rules and not left as a future amendment under Cl 78 (h).

The fact sheet on IDELs identifies the TDELS for licences:

- A Class 513 ML/day
- B Class 10, 962 ML/day
- C Class 8, 193 ML/day

These volumes need to be assessed for the level of ecological protection and amended if found to be too great.

The immediate introduction of TDELS is critical to inform the calculation of IDELs. These rules are an important function of water sharing in the Barwon-Darling.

The WSP must include the establishment of TDELS at cl 51.

### 5. Resumption of flow rule

IRN strongly supports the provision of this rule to protect first flush flows in the Barwon-Darling after long dry periods.

This will help to mitigate some of the high intolerable risk to ecosystem health.

These flows should ensure that the 60 GL restart volume is available in the Menindee Lakes so that fresh water is deliverable to Wentworth.

## 6. Formation of Environmental Water Advisory Group (EWAG)

It is imperative that an EWAG be established to assist decision-making on environmental water management in the Barwon-Darling.

The establishment of this advisory committee should be formalised through rules in the WSP including representative membership.

### **Floodplain Harvesting**

The management of floodplain harvesting is a key issue. We note that the first Barwon-Darling WSP calculated 16.5 GL of floodplain harvesting extraction in the water source.<sup>1</sup> We are aware that current assessment of this water take identifies a much higher level of take of overland flows in this catchment.

We also note that the amended WSP provide no volumes for the extraction of flood flows from the Barwon-Darling floodplain and that an amendment clause has been included.

This is an important issue due to the impact on significant ecological values in the WRP area. The high connectivity with upstream water sources where floodplain harvesting occurs causes a major unassessed impact on flows to the Barwon-Darling River from this form of take.

We are concerned that the Healthy Floodplains Project does not include a rigorous assessment of the cumulative downstream environmental, social and economic impacts of floodplain harvesting.

We are also concerned that any increase in the volume of floodplain harvesting made available for licencing under new compensable private property rights will cause a net reduction in the protection of PEW in the Barwon-Darling. This fails to meet the requirements of the Basin Plan.

The ecological outcome of improved overbank flows and provision of flows for bird breeding events will not be met under the current SDL for this water source. If the SDL is raised to accommodate newly assessed floodplain harvesting take, it will fail even further to meet the environmental objectives and targets of the Basin Plan.

Floodplain harvesting presents an intolerable high risk to the environmental assets, ecological function and hydrological indicators in the Barwon-Darling.

All reference to floodplain harvesting should be removed from the Barwon-Darling WSP and a prohibition placed on this form of water interception before it is legalised with new licence provisions.

### **Active Management Policy**

IRN has lodged a substantive submission to the draft Active Management Policy, on exhibition for comment at the same time as the Barwon-Darling WRP.

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<sup>1</sup> NSW Parliament, 15 May 2018. Question and Answers Paper No. 181, Qu 7933 Floodplain Harvesting Extractions

One of the concerning issues for this water source, as highlighted in the comments on the risk assessment, is that the Active Management Policy proposes not to protect HEW and PEW from extraction of BLR, stock & domestic entitlements and town water supply.

We note that the assessed volumes and licenced entitlement for these forms of take in the WSP are:

- BLR 824 ML/year
- Stock & domestic 967.5 ML/year
- Town Water Supply 5,373 ML/year

We also note that the volume of HEW and PEW in the Barwon-Darling is 30,359 total shares. If HEW shares equal 1 ML, the take from exempt extractions equals over 23% of water purchased to restore ecosystem function and protect environmental assets.

This is a significant issue for the environmental health of the river system.

The Barwon-Darling WSP has a strategy for reaching the targeted environmental objectives that restricts the take of water to protect active environmental water and to restore connectivity within and between water sources following an extended dry period.

BLR, stock & domestic entitlements and town water supply are forms of take included in the WSP LTAAEL. The rules in the WSP should supply access to this form of take without a reliance on environmental water purchased by tax payers or included in upstream WSP as PEW for restoring environmental assets and ecological function.

IRN finds this to be a key failing of the Active Management Policy and the direction of the Barwon-Darling WSP.

For all other comments on this policy pertaining to the Barwon-Darling please refer to the IRN submission.

### **Other Key Issues:**

#### 1. Management of entitlement limits

IRN strongly objects to the 300% carryover rule. The WSP must implement a 100% limit to annual extraction relative to annual entitlement for all A Class licences.

The NRC recommendation that allowable annual take for B Class and C Class entitlements be reduced to a rolling average of 450% over three years must be implemented through the WSP.

#### 2. Interstate Trade

IRN opposes the proposed amendment cl 80 (a) to allow for future provisions for interstate trade into and out of the Barwon-Darling water source.

The provisions in Cl 68 must be maintained.

The risk assessment identifies high risks to water availability to environmental assets.

Any transfer of water take upstream to Queensland will further exacerbate these high risks while the Barwon-Darling cannot tolerate any further increase in extraction.

### 3. LTAAEL

We note that the ongoing assessment of the LTAAEL is based on a variety of computer models with different volumes identified at Cl 33 of the WSP.

The volume of LTAAEL for the purpose of compliance with WSP rules and protection of PEW is an essential element of the water sharing process.

This process should be undertaken in a very transparent manner so that all stakeholders have an understanding of this important element of water planning.

#### 4. Access rules for supplementary water (subcategory Aboriginal environmental) access licences

These cultural water licences are a very important element of the WSP that aim to restore the natural filling sequence of culturally important lagoons and billabongs.

We do not support that these licences are restricted to 500 ML. The available volume should be the volume necessary to fill the lagoons and billabongs.

#### 5. Amendments allowing an increase in water take

IRN does not support the following inclusions under Part 12:

Cl 76 allowing for an increase in take under Part 6

Cl 78 (d) allowing take from no flow or low flow

Cl 84 (1) (b) and (8)

### **Conclusion**

IRN does not consider that the draft Barwon-Daling 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.

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