

### **Macquarie-Castlereagh Water Resource Plan (WRP)**

On behalf of the members of **MDEG** I am making this submission. We are concerned that the Water Resource Plan does not have adequate rules for sharing water with the environment. The current situation clearly shows that the native fish need more water and an improved environmental water sharing for the entire river system.

#### **Our response to Macquarie-Cudgegong water sharing plan is as follows:**

1. Water allocations made using stats from the worst drought before 2004 is a high risk approach to water management under climate change scenarios. Water modelling and decision-making must be based on the most recent drought of record.
2. We support the proposed Cudgegong Environmental Water Allowance from Windermere Dam. This water must be retained as environmental water once it enters Burrendong Dam.
3. The Macquarie Environmental Water Allowance should be managed through 100% active use with no use restrictions during the irrigation season.
4. It is unacceptable that the water sharing plan was placed on exhibition for public comment without the finalisation of rules to protect environmental water. There must be clear rules to protect environmental water from extraction
5. The free capture of floodwater for irrigation use is a key issue in the Macquarie Valley. The cumulative environmental impacts of floodplain harvesting must be assessed. It is critical that the volume of floodplain harvesting in the Macquarie is calculated. This water sharing plan should not be on exhibition for comment with this information missing.
6. We strongly object to floodplain harvesting licences getting up to 500% carryover.
7. The Cudgegong River is managed with an end of system target flow; the Macquarie River should also have an end of system flow to help maintain connectivity with the Barwon-Darling. This is very important for native fish populations.
8. The WRP risk assessment demonstrates that the internationally significant Macquarie Marshes and other environmental assets are under high risk of not receiving enough environmental water. The water sharing plan needs to be improved.
9. Planned environmental water in the Castlereagh River has been reduced. Gauges and meters to measure water use must be installed as a high priority of the WRP.
10. The Environmental Water Advisory Group, made up of community and government representatives, must be a mandatory requirement in the water sharing plan.

*P Setchell*

30<sup>th</sup> January 2019

Email to: [macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

## **Re: Submission to the draft Macquarie Castlereagh Surface Water Resource Plan**

Paddle NSW is the state body for all paddlesports and recreational paddling in NSW and the ACT. We have 39 affiliated paddle clubs; six of these are based within the Murray-Darling Basin. We have over 1800 members, and represent and advocate for the NSW/ACT paddling community of approximately 70 000 people that paddle at least 20 times a year.

We welcome the opportunity to comment on the draft Macquarie Castlereagh Surface Water Resource Plan (WRP), as a voice for our members and the broader paddling community in western NSW, and to include recreational interests in the users of this river system. The health of the river is important to our paddling community.

There are two PNSW-affiliated clubs situated on the Macquarie River, plus hundreds more locals and visitors who paddle on the Macquarie-Cudgegong River, and kayak hire businesses and tour operators. One event (WomDomNom), a 4-day paddle from Wellington to Narromine, attracts 130 paddlers each year. The Macquarie River, particularly the Macquarie Marshes, is also a popular spot for school groups to visit and learn about the river system whilst kayaking, as well as being a tourist destination for kayakers and birdwatchers. The Macquarie-Cudgegong is a valuable resource not only economically, but as a recreational and educational resource.

Our comments in this submission relate mostly to the Water Sharing Plan for Macquarie-Cudgegong Regulated Rivers Water Source and the Water Sharing Plan for Macquarie-Bogan Unregulated Rivers Water Sources.

1. Protect environmental flows to the end of the Macquarie River
  - a) Currently, environmental water can be extracted under certain license conditions once it reaches the unregulated stretch of river in the Lower Macquarie. This impacts on the amount of water in the Macquarie Marshes, and the health of the river in these lower reaches. All water for the environmental should be protected to the end of the Macquarie River and beyond.
  - b) Water for the environment released from Windamere Dam should be able to reach its natural destination - not be converted into general security water at Burrendong Dam. Again, this impacts on the health of the recreational and environmental asset of the Macquarie Marshes.
2. Include post-2004 figures when calculating dam inflow predictions and water availability

We have been informed that only pre-2004 worst drought on record figures are included when modelling water availability predictions. As such, Burrendong Dam is likely to run out of water in the next few months, and the dead space in the dam will need to be pumped, only minimal flows (town water supply) released, and the river potentially truncated in stages. This has a major detrimental impact on recreational use of the river, local economies and communities. A more conservative approach to water modelling needs to be included in the WRP to prevent such minimal flows/no flows and drastic measures needing to be taken in future. Drought figures up to the present need to be included.
3. Transparency flows:

Having a transparency rule on inflows during times of drought - when inflows to a dam drop below a particular percentile and there are also minimal or no flows from the dam - would mean some flow in the river more of the time, and would be close to what would have been the natural minimal flow in drought conditions. These transparency flows should apply to all dams in the river system and be protected along the whole river system. This would benefit both the health of the river, support fish refuge pools, and benefit community and recreational users of the river.

4. Floodplain harvesting

Presenting the draft WRP to the public for comment before volumes of floodplain harvesting access licenses are known isn't a transparent process. The public deserves all information before the WRP is signed off. Further, floodplain harvesting licenses should not carry over (as proposed - up to 500%); this is detrimental to the long-term health of the Macquarie River, the Macquarie Marshes (which rely on periodic flooding), and the Barwon-Darling river system further downstream.

5. Environmental Water Allowance in the Cudgegong River

We welcome the proposed change from translucent flow rules in the Cudgegong River to an environmental water allowance (EWA). Maintaining the health of this river through discretionary releases of environmental water will benefit the paddling community (as well as providing more water to paddle on at times), fishers (as it will enhance native fish populations), and other recreational users of the river. We do not, however, support the restriction that this can only be used when Windamere Dam is at 110 GL capacity. Further, the volume of the EWA should not be adjusted to accommodate floodplain harvesting, but instead be matched with the current amount of water provided by the translucency rules, i.e. 14 000 ML.

6. Environmental Water Advisory Groups

As a community organisation, we believe that the community should have a say in how water is managed in rivers, and that WRPs include Environmental Water Advisory Groups as a mandatory component of water management in every section of regulated river.

Yours sincerely,



**Peter Tate** – *PNSW Chief Executive Officer*





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## Macquarie-Castlereagh SW Water Resource Plan

1 message

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Wed, Jan 30, 2019 at 3:09 PM

[REDACTED]  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Dear Sir/Madam,

The NSW government has to enormously increase its efforts towards a better management of our rivers. It is so obvious, with climate change impacting the whole planet, that drastic actions have to be taken to protect our rivers, our ecosystems. Irrigators may well need water but the environment should have utmost priority. Irrigators might well decide to grow less water intensive crops, the government could demand they grow something else. What a sad world this has all come to.

Water allocations should be cancelled, rivers returned to a very healthy flow, and then whatever is left should be distributed under strict control and licences should be renewed. Gauges and water meters must be installed but not only that: ensuring they are being monitored on an ongoing basis!

The proposed Cudgegong Environmental Water Allowance from Windemere Dam must remain as environmental water once in the Burrendong Dam.

Connectivities between rivers should always be preserved to protect fish from dying. The Macquarie Marshes and native fish need more water!

The quantity of floodplain harvesting should be made public and there lies the biggest issue: No floodplain harvesting licences should come with a 500% carryover. Hence the catastrophes we've just witnessed with the million fish killed this January at Menindee.

All in all, water must be shared fairly once the rivers return to a healthy level, and not been hijacked upstream. The government must work with ALL communities regarding a Water Sharing Plan.

Best regards,

[REDACTED]  
Mudgee NSW 2850

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## Submission on the Macquarie-Castlereagh Water Resource Plan

1 message

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Fri, Jan 25, 2019 at 5:47 PM

[REDACTED]  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

I wish to make a brief submission on the Macquarie-Castlereagh Water Resource Plan currently on display for public comment.

The disastrous state of our rivers in this current drought situation, highlighted by the plight of native fish stocks in NSW regions of the Murray Darling Basin, would indicate that NSW Water management has failed dismally in its water sharing regulations that impact on environmental flows and healthy rivers.

Water modelling and decision-making need to take into consideration the most up-to-date weather records available and the continuing impacts of climate change on weather patterns in our region. Water storage and irrigation systems have created an unsustainable drain on our river systems and whilst flood mitigation may have been an important element in the past, more weight needs to be given to maintenance of water flows with an end-of-system target.

The free capture of floodwater for irrigation use requires closer consideration; the volume of floodplain harvesting on the Macquarie in particular needs to be critically assessed in terms of its cumulative environmental impact. No floodplain harvesting licences should ever include carryover provisions.

Water sharing plans and the WRP risk assessment should look first and foremost at maintaining healthy rivers, with acceptable end-of-system target flows, before extraction licences, or other water harvesting activities, are permitted, with stringent use of gauges and meters to be installed and monitored.

We need clear rules to protect environmental water. Our rivers are the life-blood of the country.

Yours faithfully,

[REDACTED]  
[REDACTED]  
[REDACTED]

25th January, 2019.

Submission to the draft Macquarie Castlereagh Water Resource Plan

Name: Western Paddlers NSW Inc.

Contact Phone:

To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

We are a kayak club based in Dubbo, and we paddle on rivers in the whole western NSW region. Our membership and networks include nearly a hundred kayakers across the western region. The Macquarie River is our local river that we paddle on regularly between Burrendong Dam wall and Narromine. We also run a trip once a year to the Macquarie Marshes, and semi-regularly paddle on the Cudgegong River, including on the current Bulk Water Transfer. So how water is shared and used in the Macquarie-Cudgegong is important to us; plus we recognise the numerous other recreational users of rivers – fishers, dragon boaters, water skiers, and people swimming and picnicking in and by the rivers. Plus of course the importance of rivers to the whole community.

We would like the voice of our members and the paddling community to be heard, plus consider recreational users – who are the greatest number of ‘water users’ of the river – in the Water Resource Plan (WRP). The following points relate mostly to the Water Sharing Plan for Macquarie-Cudgegong Regulated Rivers Water Source and the Water Sharing Plan for Macquarie-Bogan Unregulated Rivers Water Sources.

**1. Drought resilience: remodel how Burrendong Dam water inflows and availability are calculated.**

We are lucky that our local stretch of the Macquarie River is regulated, and there is usually enough water to paddle on. However, we are concerned at the prospect of Burrendong Dam being run down to 4% by the end of summer, and then having to use the dead space of the dam sometime thereafter, providing only minimal flows, and the prospect of the river being ‘cut’ further downstream, unless we get significant inflows into the dam (which isn’t looking likely from climate forecasts). The impact of these extremely low flow and no-flow situations have a big impact on recreational activities and community morale, not to mention the economies of towns on the river. We believe that WaterNSW should include all drought figures – including figures post 2004 - when devising models for calculating expected inflows into the dam and therefore water allocations for the year (we have been informed that this is currently not the case), and in general be more conservative in their approach to water allocations so that we have enough water through times of drought. We question the rationale and method of running Burrendong Dam dry in 2 years (it was full in late 2016), and not keeping more in reserve for essential town water supplies. We request that the WRP makes it mandatory that drought figures up to the present are included when making calculations and decisions about predicted water availability and water allocations.

**2. Water for the Macquarie Marshes: protect environmental flows and provide figures for floodplain harvesting allocations.**

We enjoy paddling on the Macquarie Marshes every year, and are aware of the number of other recreational users of the Marshes eg. birdwatchers and tourists. We believe that:

- a) Water released for the environment from Windamere Dam should make it as far as its natural course (including at times the Macquarie Marshes), rather than essentially stopping at Burrendong Dam as it converts into the general pool of water there.
- b) Environmental water needs to be protected as environmental water through the entire Macquarie, Barwon and Darling Rivers, and not be able to be extracted in the unregulated Lower Macquarie.
- c) It is unacceptable that the draft WRP is open for public consultation without figures for floodplain harvesting licenses. The amount of water extracted in flood times impacts on the area of land inundated in the Macquarie Marshes, and the amount of time that water sits in the Marshes for; both of these are imperative for the long-term survival of the Macquarie Marshes, and the bird breeding events that the Marshes support. We also think it is too much that floodplain harvesting allocations can carryover each year that there is not a flood, up to 500% allocation. There should be no carryover for floodplain harvesting licenses, so that the Marshes and the whole river gets the water that it needs.

**3. Environmental Water Allowance in the Cudgegong River:**

We support the conversion of translucent flow into an environmental water allowance (EWA) in the Cudgegong River, but believe that this should be treated like all other general security water, and not have a condition imposed on it that it can only be released when Windamere Dam is at 110 GL full. We believe that this proposed limitation should be removed for the health of the river and the fish populations it supports (and of course we love paddling on environmental flows!). The amount of water in the new EWA should also be 14 000 ML, in line with the amount currently available in translucency rules, and not subject to making room for floodplain harvesting access licenses.

**4. Environmental Water Advisory Groups (EWAGs):**

These should be mandatory in every section of regulated river, to give the community and all water users a voice in how water – a valuable public asset – is used. The description of EWAGs should not be removed from the WRP.

Regards,

Neal Harris,

On behalf of the Western Paddlers NSW Inc Committee.

Date: 25 January 2019



Macquarie-Castlereagh SW WRP <macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au>

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## Submission to the Draft Macquarie Castlereagh Water Resource Plan

1 message

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[REDACTED]  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Thu, Jan 31, 2019 at 7:57 PM

I strongly object to allowing high security licences from the regulated section below Burrendong to be traded to unregulated creeks or rivers upstream (the Access Dealing Rule) because it is likely to have negative impacts on the upper catchment.

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[REDACTED]



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## Submission to the Draft Macquarie Castlereagh Water Resource Plan

1 message

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Thu, Jan 31, 2019 at 8:14 PM

[REDACTED]  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Allowing high security licences from the regulated section below Burrendong to be traded to unregulated creeks or rivers up stream (the Access Dealing Rule) is likely to have negative impacts on the upper catchment. For this reason, I strongly object.

[REDACTED]



Macquarie-Castlereagh SW WRP <macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au>

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## Submission to the Draft Macquarie Castlereagh Water Resource Plan

1 message

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Fri, Feb 1, 2019 at 11:35 AM

To: "macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au" <macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au>

Allowing high security licences from the regulated section below Burrendong to be traded to unregulated creeks or rivers up stream (the Access Dealing Rule) is likely to have negative impacts on the upper catchment.

For this reason, I strongly object

Yours sincerely,

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[Redacted signature block]

[Redacted contact information]



## Healthy Rivers Dubbo

E-mail: [healthyriversambassadorubbo@gmail.com](mailto:healthyriversambassadorubbo@gmail.com)

### Submission to Draft Macquarie-Castlereagh Surface Water Resource Plan

To: NSW Government

Department of Industry

By e-mail: [macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

#### 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 in. Healthy Rivers Dubbo encourages the use of the Traditional name for our river, Wambuul. We acknowledge that the land in which we live was never ceded.

Healthy Rivers Dubbo welcomes the opportunity to make a submission to the draft Macquarie-Castlereagh Water Resource Plan.

#### Macquarie Cudgegong Regulated Rivers Water Sharing Plan – proposed amendments

##### **Convert Cudgegong translucent flow releases to an environmental water allowance (EWA)**

Healthy Rivers Dubbo supports the proposed change from translucent releases to a managed environmental water allowance (EWA).

However we have the following objections regarding changes to the Cudgegong:

a) We object to the limitation of availability of EWA below 110GL dam level. Having a minimum volume of 70GL in Windamere dam is 7 years water supply for Mudgee and surrounding communities, we feel that is plenty of water security. 110GL levels would be up to 11 or 12 years water supply for communities, which is disproportionate to the situation in Burrendong dam. The more often the Cudgegong River has environmental water releases, the less the requirement there is for bulk water transfers.

b) We object to using floodplain harvesting (FPH) volume calculations to frame the final sizing of the Cudgegong EWA. The volume should be based solely on the equivalent to the long term availability of the 10 GL translucent account which was around 14 GL. Reducing the EWA to 12.3GL to allow room for FPH volumes is unacceptable.

c) When environmental water is released from Windermere dam and ends up in Burrendong dam, it should be added to the existing environmental accounts in Burrendong dam. We argue strongly that once water is classified as environmental water in any part of the system, it must remain environmental water.

### **Review of the environmental flow rules for the Macquarie environmental water allowance (EWA)**

We support the proposed changes the EWA sub-allowances 60% active 40% translucent.

### **Formalise historic practice of providing a stock and domestic replenishment flow to the Macquarie River below Oxley**

We support the proposal to formalise the Stock & Domestic flow below Oxley. It is very important that the Macquarie Cudgegong Regulated Rivers Water Sharing Plan have an End of System Target Flow, which would provide replenishment of the Oxley waterhole, among many other environmental advantages, discussed further below.

### **Review volumetric trade limits to provide more flexibility for water users**

Healthy Rivers Dubbo supports the increase in volumetric trade limit on Bulgeraga Creek from 33GL to 45GL.

We are very concerned that the Macquarie Cudgegong Regulated Rivers Water Sharing Plan says nothing about channel sharing. We have seen many examples throughout the entire Murray-Darling Basin where environmental deliveries are given a lower priority than irrigation orders when there are constraints to delivery. There needs to be a channel sharing clause inserted into the Macquarie Cudgegong Regulated Rivers Water Sharing Plan that explains that the delivery of water is prioritised on a first in best dressed case when restricted channel capacity creates a conflict.

## **Incorporation of floodplain harvesting (regulated river) access licences**

Healthy Rivers Dubbo is very concerned at the lack of clear and transparent information about floodplain harvesting (FPH) available at the time that this draft Water Resource Plan is on public exhibition. We are following the development of the NSW Floodplain Harvesting Policy, and will continue to attend public consultations on FPH, and make submissions outlining our many concerns. The serious concerns we have about FPH include but are not limited to - the lack of assessment of the historic cumulative environmental impact of FPH on downstream rivers and wetlands; a lack of evidence that FPH will be accurately capped to 93/94 levels of development; and the disproportionate carryover provisions up to 500% for FPH that will allow large annual allowances to accrue, negatively impacting on planned environmental water by reducing water available for downstream rivers and wetlands.

It is not right that the draft Macquarie Castlereagh Water Resource Plan is on exhibition for comment without knowing the volume of floodplain harvest take, or the cumulative environmental impact.

## **Macquarie Bogan Unregulated Rivers Water Sharing Plan – proposed changes**

### **Floodplain Harvesting**

Clause 47a of the unregulated WSP (1) we strongly object to an available water determination that is 2ML per unit share. That extra bonus handout of 1ML to irrigators directly reduces planned environmental water and downstream environments, like the internationally significant Macquarie Marshes, and communities like Louth, Tilpa and Wilcannia.

Part 12 Amendment of this Plan, 87 Other (10) of the Draft Water Sharing Plan for the Macquarie Bogan Unregulated Rivers Water Source 2012 (amended 2012) states:

*This plan may be amended to amend, omit or insert any rule or provision relating to floodplain harvesting (unregulated river) access licences.*

We are extremely concerned about the transparency of the accreditation process for this Water Resource Plan when it contains such open-ended clauses, effectively a blank cheque for writing floodplain harvesting into the WRP.

### **Connectivity**

The connection of the Wambuul to the Barwon is crucial to the existence of a naturally occurring native fish population in the Macquarie. Golden Perch, for example, do not breed in Wambuul. From the Barwon, they pick up signals in the water and know that conditions are just right for

feeding in Wambuul, and they migrate through the lower Macquarie (when levels are over 50cm depth), and find themselves in the banquet that is the Macquarie Marshes and Wambuul. <sup>1</sup>

Since the dams have gone in, the frequency and duration of connectivity events is the inverse of what it was. That is the result of dams withholding enormous volumes of water and the extraction of a significant portion of water from the valley.

There must be a clause added to the Unregulated Macquarie WSP that mandates connection events.

## Castlereagh Unregulated River Water Sharing Plan – proposed changes

Gauges and meters to measure water use must be installed as a high priority of the Castlereagh Unregulated River Water Sharing Plan. In the current WSP, cease-to-pump and start-to-pump rules are associated with specific water heights in different river reaches. This was to be managed by a new river gauge that was never installed.

The draft Castlereagh Unregulated River Water Sharing Plan intends to revert the rules to suit the way the river has been run over the last 10 years, instead of installing the gauges and following the rules set out in the current water sharing plan.

As there must be no net reduction in 'planned' environmental water (as per Basin Plan 10.28 "No net reduction in the protection of planned environmental water") in this water resource plan, Healthy Rivers Dubbo expects the MDBA to insist the new gauges are installed in the Castlereagh River, and the existing cease-to-pump and start-to-pump rules be activated as per the current water sharing plan. If this does not occur, the result is undeniably a reduction in planned environmental water in the Castlereagh River, and the draft Castlereagh Unregulated River Water Sharing Plan does not comply with Basin Plan requirements.

## Other Changes

### **Environmental Water must have legal protection from extraction in every water sharing plan in the Murray-Darling Basin**

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

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<sup>1</sup> <http://www.environment.gov.au/water/cewo/publications/making-the-connection>

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 purchased by the public to stay in rivers and wetlands, must actually stay in the rivers and wetlands. We expect to see clauses included in all water sharing plans that act as surrogates for protection of environmental water, as mechanisms such as ministerial embargoes are vulnerable to political influence and do not always provide the level of protection required. The legal protection of all publicly owned environmental water must be a rule within all the Water Sharing Plans in the Murray-Darling Basin, along with adjustments to licence conditions that completely embargo the extraction of environmental water.

### **Calculations made without using inflow figures before 2004**

Healthy Rivers Dubbo is very concerned that decisions on water allocations are made using inflow data exclusively from before 2004. All the available data should be included in the modelling calculations to determine water availability, otherwise the process is stuck in the past, and tends to result in more water being available for extraction. Modelling needs to draw on recent inflow data to remain relevant and adaptive as the climate dries.

This is a high risk approach to water management under climate change scenarios. WaterNSW need to be directed to ensure that there are sufficient amounts of water held in reserve to provide for the health of rivers, native fish, vegetation and wetlands when water sharing plans are suspended.

There is growing concern in NSW towns west of the Great Divide as rivers dry up, dams empty and fish die. We are concerned that we will run out of water if the current extreme drought continues past the 2019 winter. Given the reality of man-made climate change, this is an acute possibility, and the thought of what reality awaits us this time next year if the drought continues is of the highest concern.

### **3<sup>rd</sup> Party impacts**

We request that all decisions in the three Water Sharing Plans under this Water Resource Plan that have been accredited to 'third party impacts' be identified and be communicated clearly to us.

### **Macquarie Marshes**

#### Declining Health

Since the advent of major flood irrigated cotton development in the catchment during the 1990's, the core Macquarie Marshes has reduced from 72,000 ha to 20,000 ha.

The Macquarie Marshes Water Management Plan (DLWC & NPWS 1996) gives a figure of approximately 150,000 hectares for the study area, consisting of 72,000 hectares of semi-permanent wetland, 59,000 hectares of ephemeral wetland and 23,000 hectares of dryland vegetation within the boundary (Wilson 1992). The ecological condition of the marshes has declined since the Ramsar listing in 1986, and since 2000 the decline has been accelerating (Bacon 1996, 2004; Summerell 2004). Similarly, much of the semi-permanent wetland identified in the 1996 management plan is in poor condition, or no longer present (Bowen & Simpson 2010).<sup>2</sup>

According to KBAS IN DANGER THE STATE OF AUSTRALIA'S KEY BIODIVERSITY AREAS IN 2017 report<sup>3</sup>

*In 2013, the Wetlands and inner floodplains of the Macquarie Marshes were listed as an Endangered Ecological Community under the EPBC Act. While this listing was initially supported by government, subsequent political pressure saw the decision reversed. However, this decision was mere politics; in reality, the Macquarie Marshes are at great risk of ongoing decline and loss of biodiversity...*

*...the importance of the Macquarie Marshes to the Endangered Australasian Bittern, one of the trigger species for which the Marshes were declared a KBA. The Marshes' extensive reedbeds and sedgeland provide high quality breeding and foraging habitat for Australasian Bitterns, but like many of the once-extensive wetlands in the Murray-Darling Basin, the over-extraction of water and land use for agriculture, combined with drought, have greatly reduced the extent and quality of these habitats, with large areas transitioning to chenopod shrubland.*

*In the early 1990s, an area of around 72,000 hectares of semi-permanent wetland vegetation was mapped in the Macquarie Marshes. More recent vegetation mapping indicates this area has declined since then, with a core of approximately 20,000 hectares present...*

#### Obligation under international agreements

The Macquarie Marshes Nature Reserve, "Wilgara" Wetland and U Block are listed on the Ramsar Convention of Wetlands of International Importance. The Nature Reserve is also listed on the Japan - Australia Migratory Bird Agreement (JAMBA) and the China - Australia Migratory Bird

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<sup>2</sup> <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Water/Water-for-the-environment/macquarie-marshes-adaptive-environmental-management-plan-100224.pdf>

<sup>3</sup> KBAs in danger: the state of Australia's key biodiversity areas in 2017 Samantha Vine, Golo Maurer, Jenny Lau, Margaret Quixley, Connie Warren BirdLife Australia <https://apo.org.au/sites/default/files/resource-files/2017/06/apo-nid92866-1235036.pdf>



Agreement (CAMBA) along with several other agreements. The Water Act 2007 is clear that international agreements must be honoured:

*'to give effect to relevant international agreements (to the extent to which those agreements are relevant to the use and management of the Basin water resources) and, in particular, to provide for special measures, in accordance with those agreements, to address the threats to the Basin water resources'*

A notification of change to ecological character was submitted to the Ramsar secretariat under Article 3.2 of the Ramsar Convention in 2009. <sup>4</sup>

#### The Water Act 2007, Basin Plan and WRPs

The Water Act 2007<sup>5</sup> says that the ecological values of the Murray-Darling Basin must be protected and restored:

*'to protect, restore and provide for the ecological values and ecosystem services of the Murray-Darling Basin (taking into account, in particular, the impact that taking of water has on the watercourses, lakes, wetlands, ground water and water-dependent ecosystems that are part of the Basin water resources and on associated biodiversity)'*

All Water Resource Plans must enable achievement of the agreed hydrological objectives and support the ecological objectives described in the Basin Plan and related documents. (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")

#### Failure to meet Basin Plan environmental outcomes

The MDBA "Proposed Environmentally Sustainable Level of Take" for Surface Water of the MDB: Method and Outcomes - November 2011 <sup>6</sup> page 120, has the expected outcomes for the Macquarie-Castlereagh:

##### *9.6.3 Ecological targets*

*Given the environmental values contained within the Macquarie-Castlereagh catchment, ecological targets were developed focusing on the lower Macquarie River including the Macquarie Marshes.*

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<sup>4</sup> <http://www.environment.gov.au/water/topics/wetlands/database/pubs/28-statement-of-reasons-3-2-notification-20100204.pdf>

<sup>5</sup> <https://www.legislation.gov.au/Details/C2018C00505>

<sup>6</sup> <https://www.mdba.gov.au/sites/default/files/pubs/eslt-mdba-report.pdf>

*Within the constraint of being deliverable in a working river system, the ecological targets focus on providing a flow regime which:*

- ensures the current extent of native vegetation of the riparian, floodplain and wetland communities is sustained in a healthy, dynamic and resilient condition.*
- supports recruitment opportunities for a range of native aquatic species (e.g. fish, frogs, turtles, invertebrates)*
- supports key ecosystem functions, particularly those related to connectivity between the river and the floodplain*
- supports the habitat requirements of waterbirds and is conducive to successful breeding of colonial nesting waterbirds.*

The current environmental condition of the Macquarie Marshes is far worse than the required outcomes of 2011, as detailed above in the Declining Health section.

#### In summary

The current Macquarie Bogan Unregulated Rivers Water Sharing Plan and Macquarie Cudgegong Regulated Rivers Water Sharing Plan are failing the Macquarie Marshes. The risk assessment attached to this very WRP sets out that the Macquarie Marshes and other environmental assets are under high risk of not receiving enough environmental water. The changes proposed in the draft plans for review as a part of the Water Resource Plan accreditation process will not reverse the Marshes' fortunes, and therefore do not meet the requirements of the Basin Plan and the Water Act 2007.

#### **Compliance assessment advisory committees (CAGs)**

Healthy Rivers Dubbo objects to CAGs being given the responsibility for providing advice to the minister on the plan's assessment and compliance clauses. The CAGs do not represent the broad interests of the valley and are skewed to license-holders only.

#### **Environmental water advisory groups (EWAGs)**

Environmental Water Advisory Groups need to be maintained as mandatory and specifically described in Water Sharing Plans clauses. Local stakeholders including Traditional Owners, Scientists, Graziers, Irrigators, Environmental Group Representatives, CEWH and State Government Representatives share their significant local knowledge, developing unique and highly effective adaptive management skills for their local patch of river valley.

The Macquarie Cudgegong Environmental Flows Reference Group (EFRG) is a highly successful example of how these groups can operate – it is a very good model, don't change it.

Achieving connection to the Barwon is a priority every water year for the EFRG. As there is no mandatory requirement in the WSP to achieve connection, the role the EFRG plays is vital in prioritising environmental outcomes in the area.

In the 2019 water year, a connection to the Barwon was achieved that:<sup>7</sup>

- Provided inflows to a section of the Barwon River downstream of Walgett that had stopped flowing for over three months.
- Improved the water quality by reducing salinity levels in the Barwon at Geera from over 10,500 µS/cm (not suitable for human consumption or irrigation) to 608 µS/cm (can be used for human and livestock consumption and irrigation).
- Topped up 175 pools identified along the 130 kilometre stretch of river between the Macquarie junction and the Brewarrina Weir. These deeper pools provide refuge in these dry periods for native fish.
- Locals around Brewarrina also saw some benefits of water flowing into the Brewarrina weir pool.

It is likely that without this flow, and the experienced management that went into its planning, Brewarrina may have run out of water like Walgett did.

### **End of System Target for the Regulated Macquarie River**

There needs to be an end of system target flow in the regulated Macquarie, otherwise there's no requirement for WaterNSW to send water out of the dam when paying customer orders slow down or stop. Having an end of system target would have many benefits for the river system, including:

- The Macquarie Marshes would not dry out as much between environmental watering events. The less parched the Marshes are, the more efficient the environmental watering is.
- Less erosion of basic landholder rights – as WaterNSW is under increasing pressure to be efficient with deliveries, there has been an erosion of landholder rights in lower sections of the river.
- Connectivity to the Barwon would be easier to achieve. If the riverbeds and Marshes are primed due to water being in the environment to meet end of system targets, natural rain events and environmental watering will be much more effective in the system, and connection to the Barwon will be more likely.

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<sup>7</sup> <http://www.environment.gov.au/system/files/resources/959316fc-fe26-490d-b3c0-a42d06e278cb/files/macquarie-river-marshes-watering-event-update3-041218.pdf>

- Ground water replenishment - the extent to which our ground water sources in the Macquarie Valley are in non-tolerable categories of health is extremely alarming, as expressed in the risk assessment for the Macquarie Castlereagh Alluvium draft water resource plan. More water is required in our rivers for them to function in a healthy way.

Our rivers need more water in them - to support life, culture, community, sustainable economies and ground water sources. An End of System Target Flow is essential for the Macquarie Cudgegong Regulated Rivers Water Sharing Plan.

### **Access Licence Dealing Rule**

Part 10 access licence dealing rule (Minster's Note). We object very strongly to the conversion of any regulated entitlements, high security or general security from downstream water sources to connected upstream unregulated water sources under any circumstances.

Transferring a high security licence to a creek in the unregulated upper catchment has the potential to seriously degrade the environment and negatively impact on communities in the area. Healthy Rivers Dubbo is astounded that such a rule could be proposed without consultation with stakeholders, and without being highlighted in the factsheet.

### **Connectivity**

The Macquarie River provides important inflows for the Barwon and Darling rivers, especially in late winter and early spring when other Northern Basin Rivers aren't being fed by monsoonal falls. Achieving connection to the Barwon must be a rule within the Water Sharing Plans covered by the Macquarie-Castlereagh Surface Water Resource Plan. Environmental flows are carefully planned and executed, with input from the Macquarie Cudgegong Environmental Flows Reference Group, and one important target for these planned events is to achieve connection between the Macquarie and Barwon Rivers. These events must be completely protected from extraction through clauses added to the water sharing plans, and changes to licence conditions.

### **Mandatory Metering and Log Books**

While we are encouraged by new regulations from NSW that impose mandatory conditions relating to metering and log books by regulation, we are concerned that reference to these regulations has not been retained in the water sharing plan. What is the legal instrument that will enforce these regulations, and will this legal instrument be publically visible?

### **Changes in clauses not mentioned in the fact sheets**

We are aware of wording and definition changes in the draft water sharing plans that were not disclosed in the Factsheet of proposed changes. In the interest of accountability and transparency, we expect that all changes to the plan be highlighted in the document placed on public exhibition and accompanied with an explanation of intent as to why these changes were made.

One example from the regulated Macquarie regulated WSP is Rule 83 1/b/1 Full Supply Level has been changed to Full as Possible. There is no definition given for the volume of 'Full as Possible', please advise us what the volumetric difference is between Full as Possible and Full Supply Level.

Another example of an unadvertised change in wording within the unregulated Macquarie WSP is clause 35, relating to compliance with extraction limits. Where the current plan states that the Minister must reduce the available water determinations for the following year if the limit is exceeded, this has been changed to the Minister may reduce the available water determinations for the following year if the limit is exceeded. This clause has been weakened and allows the Minister to make decisions that favour industry over the environment. This wording has the potential to erode planned environmental water, and should be changed back.

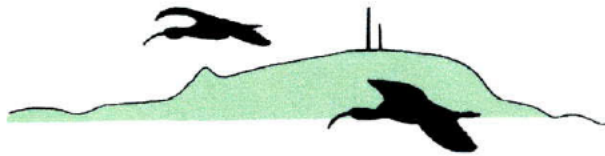
The NSW Government should not be surprised by the erosion of public confidence in water management in NSW when changes in the draft plans have the potential to reduce water available for the environment, and have not been openly disclosed.

Yours Respectfully,

Melissa Gray

Founding Member

[healthyriversambassadordubbo@gmail.com](mailto:healthyriversambassadordubbo@gmail.com)



ORANGE FIELD NATURALIST  
& CONSERVATION SOCIETY INC.



Department of Industry – Water  
GPO Box 5477  
Sydney NSW 2001  
[Macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:Macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

### **Re: Draft Macquarie-Castlereagh Water Resource Plan (WRP)**

Orange Field Naturalist and Conservation Society [OFNCS] is grateful for the opportunity to comment on the draft Macquarie-Castlereagh Water Resource Plan. OFNCS is composed of amateur and professional naturalists and conservationists who have a keen interest in the health and environmental sustainability of this catchment. We are based in the headwaters of the Macquarie River and Mt Canobolas is an initial recharge area for it.

As a group we are very aware of the need for sharing of a scarce resource and that use of water anywhere along the river will have an impact on downstream environments and users, including beyond this catchment to the Barwon-Darling and Murray Rivers. The current fish kills, not just at Menindee, demonstrate the need for better regulation of flow to ensure the health and life of the river. The First Nation people's consultations say this simply and effectively; healthy rivers, healthy environments and healthy people. They also stressed the need for connectivity and like the Cudgegong River, the Macquarie River must also have an end of system flow so that water reaches the Barwon-Darling system and beyond. This connectivity is vital for native fish populations.

The Macquarie Marshes are an internationally significant habitat and breeding area for waterbirds. Due to lack of water they have been under threat for many years. The risk assessment in the WRP shows that the Marshes and other environmental assets in these catchments are under significant risk of not receiving enough environmental water. This risk must be reduced by increasing the environmental allocation and ensuring that this allocation is not extracted before reaching the Marshes and these other assets.

Therefore, clear rules must be established to protect and shepherd environmental water as it moves down the system. These rules should have been finalised before the WRP was released for public comment. They are critical to understanding and commenting on the implications of other aspects of the plan. There must also be a mechanism for enforcement of these rules so that environmental water is used as intended. In times of drought any allocations for the environment must be kept and used for the environment. An example of where rules would apply is the proposed Cudgegong Environmental Allowance from Windamere Dam. OFNCS supports this allowance and it must be shepherded as it travels to Burrendong Dam and retained as environmental water.

To allow monitoring of water use and extraction in the Castlereagh system installation of meters and gauges should be a priority.

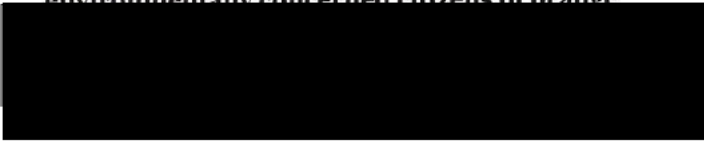
Having water modelling and decision making for this plan based on the worst drought before 2004 is inappropriate. The current drought is said to be worse than these so modelling must be based on this drought and take greater account of climate change predictions of hotter temperatures, less rainfall and other changes in rainfall patterns.

Harvesting of floodwater on the floodplain for irrigation use has an impact on the health of these river systems and beyond to the Barwon Darling system. It is essential that the volume of water harvested from the floodplain is calculated and its impact assessed. This is a major gap in the WRP. OFNCS opposes that floodplain harvesting licences are given up to 500% carryover.

This plan must require that community and government representatives have ongoing input into its further development, implementation and monitoring. The Environmental Water Advisory Group, and its knowledgeable members, is an appropriate body to do this and must continue. The consultations yet to be done with some Indigenous nations must be completed and incorporated into the WRP.

[REDACTED]  
Rosemary [REDACTED] Appleton

[REDACTED]  
[REDACTED]  
Orange Field Naturalist and Conservation Society  
1<sup>st</sup> February 2019



Department of Primary Industry  
NSW  
January 29, 2019

**Re: The draft Macquarie-Castlereagh Water Resource Plan**

To whom it may concern,

I am writing to you on behalf of the Environmentally Concerned Citizens of Orange (ECCO). We are a not for profit local environment organisation whose role it is to be an advocate for the environment. ECCO is a stakeholder in the issue of the water management of the Macquarie River, as we are situated within the catchment area. We also share the concerns of many environmental groups about the health of the Macquarie river system.

ECCO does not support the modelling proposed in making decisions about water allocation. Modelling based on figures from the worst drought before 2004 is extremely risky due to the changes to climate and weather patterns which can be reliably linked to climate change, which is predicted to have a significant long term effect on the future quantity and distribution of rainfall in the Macquarie catchment. Any modelling and decision making concerning water allocation should be based on current and future climate modelling, placing climate change at the forefront of the decision making process.

The WRP proposes an environmental water allowance from Windemere Dam via the Cudgegong River to be held in Burrendong Dam. This is supported by ECCO. However, there must be an assurance that the volume of water flowing into Burrendong for this purpose must be transparently recorded and be used for no other purpose except that of augmenting the supply of environmental water for downstream Macquarie. Furthermore, the environmental flow in question should not be subject to any restriction during the irrigation season.

A crucial component of the decision making process regarding the water management of the Macquarie-Castlereagh rivers is the continued input from the Environmental Water Advisory Group, which provides opportunity for advocacy for environmental issues from a variety of stakeholder groups. These are people who are highly qualified to inform decisions concerning the environmental, social and cultural aspects of river management. The inclusion of this group in decisions pertaining to the management of the rivers must be made mandatory,

There are some rules concerning the protection of environmental water which are somewhat vague. It has been mentioned in the document that some rules designed to protect environmental water are not yet finalised. It is unacceptable that this important WRP has been placed on public exhibition without its rules and guidelines being finalised.



An important issue within the Macquarie valley is that of the capture of floodplain water for the purpose of irrigation. This practice restricts the environmental benefit derived from medium flows, and allows for an unacceptable amount of water crucial for river and wetland health to be diverted for irrigation. It is crucial that there be an accurate calculation of the volume of water harvested from the floodplain. It is most inappropriate that this was not completed prior to the publication of the draft WRP.

River connectivity is frequently mentioned in the draft WRP. Such connectivity would be enhanced if the Macquarie River had an end of system target flow necessary to enable suitable connectivity with the Barwon River to allow for the passage of native fish between the two rivers.

It is obvious, and has been for many years, that the Macquarie Marshes have been starved for water, even when there is no drought. These iconic Ramsar listed wetlands need to be resourced in such a way that they can fulfil their environmental, social and cultural roles within the framework of the catchment. There needs to be an improvement in the water sharing plan that goes beyond the concept of “sharing” and genuinely addresses the environmental water needs of the marshes.

For any water management plan to be successful, there needs to be efficient and accurate monitoring and measuring tools, in this case, the installation of meters and gauges. The installation of these in the system should be seen as a priority. The current WRP requires cease-to-pump and start-to-pump rules that are triggered on river heights that cannot be measured as the gauges and meters were never installed.

Thank you for the opportunity to comment on the draft Macquarie-Castlereagh WRP

Yours sincerely,  
Nick King  
President, ECCO

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## Macquarie-Castlereagh SW Water Resource Plan

1 message

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Fri, Feb 1, 2019 at 4:02 PM

[REDACTED]  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

As an individual landowner in this region I wish to make this submission re Macquarie-Castlereagh SW Water Resource Plan.

[REDACTED]

1. I do not support that decisions on water allocations are made using the worst drought before 2004. Water modelling and decision-making must be based on the most recent drought of record. This is a high risk approach to water management under climate change scenarios.
2. I do support the proposed Cudgegong Environmental Water Allowance from Windamere Dam. This water must be retained as environmental water once it enters Burrendong Dam.
3. The Environmental Water Advisory Group, made up of community and government representatives, must be a mandatory requirement in the water sharing plan.
4. There must be clear rules to protect environmental water from extraction. It is unacceptable that the water sharing plan was placed on exhibition for public comment without the finalisation of rules to protect environmental water.
5. The free capture of floodwater for irrigation use is a key issue in the Macquarie Valley. The cumulative environmental impacts of floodplain harvesting must be assessed. It is critical that the volume of floodplain harvesting in the Macquarie is calculated. This water sharing plan should not be on exhibition for comment with this information missing.
6. I strongly object to floodplain harvesting licences getting up to 500% carryover.
7. I object to floodplain harvesting available water determination of 2ML per unit share, which is an extra bonus handout to industry at the expense of the environment.
8. I object to the wording change in clause 35 of the unregulated wsp "if there is non compliance with the long term average annual extraction limit one year, the minister *may* reduce allocation next year". This is not acceptable.
9. I object very strongly to the conversion of any regulated entitlements, high security or general security from downstream water sources to connected upstream unregulated water sources under any circumstances- Access Licence Dealing Rule, Part 10 access licence dealing rule (Minster's Note).
10. The Cudgegong River is managed with an end of system target flow, the Macquarie River should also have an end of system flow to help maintain connectivity with the Barwon-Darling.
11. The WRP risk assessment demonstrates that the internationally significant Macquarie Marshes and other environmental assets are under high risk of not receiving enough environmental water. The water sharing plan needs to be improved. The government needs to compensate licence holders if water shared need to be reallocated in order to protect important environmental assets.
12. Planned environmental water in the Castlereagh River has been reduced. Gauges and meters to measure water use must be installed in the Castlereagh as a high priority of the WRP.

[REDACTED]



**Submission in Response to  
Macquarie-Castlereagh Surface  
Water Package: Surface Water  
Resource Plan and Surface  
Regulated & Unregulated Water  
Sharing Plans**

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# 1. INTRODUCTION: WHY WATERNSW IS MAKING THIS SUBMISSION

WaterNSW is responsible for supplying the State's bulk water needs, operating the State's river systems and the bulk water supply system for Greater Sydney. We service approximately 46,000 customers as a one-stop shop for matters including licences and approvals, water allocation trades, water licence trades and water resource information.

This submission addresses the implementation aspects of the Macquarie-Castlereagh Surface Water Package, which encompasses the following plans:

- Macquarie-Castlereagh Surface Water Resource Plan;
- Macquarie and Cudgegong Regulated Rivers Water Sharing Plan;
- Macquarie Bogan Unregulated Rivers Water Sharing Plan; and
- Castlereagh Unregulated River Water Sharing Plan.

The above replacement water sharing plans (**WSP**) are being developed in line with the creation of Water Resource Plans (**WRP**), which will be accredited under the *Basin Plan 2012*.

It is important to acknowledge that there may be an adjustment period for all involved in water to become familiar with the content and format of the new template and their operational interaction with WRPs. A core customer service principle of WaterNSW is "make it easy for the customer" and we believe that the best outcomes for both water resources and water users alike are achieved when users understand their compliance responsibilities and any licence impacts. Accordingly, we recognise that the Department has worked closely with the relevant Stakeholder Advisory Panels over the past year to develop the WSPs.

It is nevertheless worth highlighting the critical role that continuing education plays in achieving effective outcomes. All water agencies in NSW (broadly, the Department of Industry Water (**DOI-W**), WaterNSW, and the Natural Resources Access Regulator (**NRAR**)) have a role to play in this regard. For WaterNSW, this role encompasses River Operator, Market Participant, Licensing and Approval Authority, Billing and Education associated with each of these functions.

Since 2017 WaterNSW has worked with the NSW Government's Water Reform Task Force, including most recently providing comment on the metering regulations and corresponding framework. This framework commenced on 1 December 2018 with many of its operational aspects commencing on 1 April 2019. We encourage end-users to take note of the Macquarie-Castlereagh Surface Water Package aspects relating to the metering framework and the implications for their water use.

## 1.1. PRINCIPLES UNDERPINNING THIS SUBMISSION

This submission is **guided by principles we have articulated in previous submissions**, both in 2016 in response to the Status and Issues Papers for WRPs (<https://www.waternsw.com.au/supply/regional-nsw/water-sharing-plans>), and in 2018 in response to the Water Reform Action Plan Discussion Papers (April) and the NSW Water Metering Framework Draft Regulations & Policy (September).

At a high level, these principles include components of market certainty and operational flexibility. These are relevant to two of WaterNSW's primary functions as market participant and System Operator.

## Market certainty

- **clear and functional separation** of the market participants and reduced market complexity, with a focus driving transparency, accountability and performance;
- **improved confidence** in market outcomes;
- **improved robustness** in WSPs and WRPs to deal with foreseeable but not everyday circumstances (including drought and unregulated flow events) such that administrative discretion is limited in the plans to uncommon and rare situations;
- **consistent water accounting rules across valleys** to reduce unnecessary complexity;
- **clear and effective rules** and straightforward mechanisms by which minor rule changes like drafting errors can be resolved in a timely manner; and
- **a prescribed rule-change process** that allows market participants to submit proposed changes during the life of a WSP, where current rules are not achieving the desired outcomes, in order to improve the operability and market processes in line with the public interest.

## Operational flexibility

- **clear identification of the role of WaterNSW**, including as System Operator in both regulated and unregulated systems;
- **outcomes-based policy frameworks** that identify the objectives but allow operational flexibility to deliver the outcomes; and
- **establishing performance frameworks and reporting**, including appropriate auditing by DOI-W of WaterNSW's implementation of WSP rules, to ensure it meets the required objectives.

# 2. MACQUARIE AND CUDGEGONG REGULATED RIVERS WATER SHARING PLAN

## 2.1. WATERNSW AS THE OPERATOR

The new WSP template, interaction with WRPs and review of the Macquarie-Castlereagh surface water resources, is an opportunity for WaterNSW to be listed as the operational entity for the purposes of the plan. **We support the specific inclusion in the Macquarie and Cudgong Regulated Rivers WSP of WaterNSW as “the Operator”** from the plan's commencement in July 2019. Naming WaterNSW in this way gives clarity to the roles of relevant water agencies in NSW.

It is also notable that, alongside being named as the Operator, the Macquarie and Cudgong Regulated Rivers WSP specifies certain functions for WaterNSW (as the Operator) to perform. This is important for two reasons.

First, it **removes the administrative requirement** of inserting these functions in the WaterNSW Operating Licence and the uncertainty (both to WaterNSW and its customers) associated with conferring functions through a subordinate document. Accurately describing the role of the Operator in WSPs provides a cleaner and more direct regulatory framework for WaterNSW to perform its operational responsibilities. Importantly, it also means the Operating Licence can be used as a “by exception” document for the purposes of conferring functions arising from the WSP.

The second reason relates to **appropriate oversight and audit mechanisms**. At an on-ground operational level WaterNSW exists to implement the rules of WSPs, which are set by DOI-W as the policy and rule maker. Consequently, DOI-W is the party best placed to ensure that the WSPs are being implemented to achieve their stated outcomes. The mechanism for DOI-W to audit WaterNSW on compliance with WSPs only arises if our role as the Operator is accurately described in the WSPs.

The reverse situation, whereby the Operating Licence rather than the WSPs describe the role and function of WaterNSW's operations, results in IPART undertaking the auditing and compliance functions. This may cause auditing to be duplicated or not fit-for-purpose, neither of which are ideal. As DOI-W set the rules it is best placed to regulate our implementation of same.

## 2.2. FUNCTIONS OF THE OPERATOR

The role of the Operator is to undertake day-to-day operations of the river systems to deliver water to our Customers, including town water supply, stock and domestic, and environmental and irrigation water users. WaterNSW believes that rules should be developed to enable the Operator to operate the system on a day-to-day basis independently of the Minister having daily input in addressing foreseeable events.

**Rules should be codified to ensure the Operator can manage water deliveries during unregulated flow events** and allow access when conditions meet the codified rules for orders to be fulfilled. Ministerial intervention should be seen as the exception and reserved for extraordinary events, rather than as part of the daily operation of the system.

On this point it is relevant to restate part of our submission to the Macquarie Status and Issues Paper in 2016 (see section 4.3 of that submission). System rules must be flexible and allow for adaptive management to ensure that planned environmental water access is maintained but not exceeded. Adaptive management of the rules is required to ensure the sustainable diversion limit is not exceeded yet remains fully available. This can be assured in the Macquarie and Cudgegong Regulated Rivers WSP through rules pertaining to supplementary access, minimum flows, and the Environmental Contingency Allowance rules.

Adaptive management of these types of rules would not impact compliance with the Sustainable Diversion Limit (SDL) when assessments consistently demonstrate under-usage (that is, usage that is less than the SDL). The current system is flexible only insofar as ensuring less usage than the SDL but does not contain a mechanism to bring the actual diversions back up to SDL. This results in operational challenges as WaterNSW strives to deliver all water allowed within the SDL, efficiently in accordance with orders and with minimal surplus water released. We **recommend** consideration be given to equipping the WSP with this flexibility.

While the inclusion of WaterNSW as the Operator in the Macquarie and Cudgegong Regulated Rivers WSP is a commendable forward step, **the regulatory framework can be improved** to allow WaterNSW the flexibility it requires to operate the rivers with ease and with the appropriate amount of oversight (through audits) from other agencies.

For example, the process of debiting water from an individual water allocation account for water take is a function of WaterNSW's daily operations and core business, but is currently identified in the Macquarie and Cudgegong Regulated Rivers WSP as a function of the Minister (allowing it to be exercised by the Department unless conferred to WaterNSW through its Operating Licence). Similarly, determining limits on water allocation accounts and carryover, and ensuring that allocations in a water allocation account do not exceed specified limits, is a daily function of WaterNSW and the WSP should assign its responsibility to the Operator directly. These are clauses 42 and 43, respectively, of the draft replacement Macquarie and Cudgegong Regulated Rivers WSP.

The same principles also apply to accounting rules for regulated river (general security) licences and background procedures relevant to taking water only in accordance with relevant orders. We note that **supplementary licences** should not be excluded from the list of licences **requiring mandatory conditions that water must be ordered to be taken** (clause 86(2)). Specifying this requirement as a mandatory condition for supplementary licences will improve WaterNSW's ability to manage these events (active management).

We note that the requirement in clause 86(5) of the draft replacement plan, that supplementary licences must have mandatory conditions that give effect to water account and WAL management rules (Part 8 Division 2), is not sufficient in this regard. Part 8 Division 3 concerns supplementary water announcements but does not require water orders to be made to use this water. WaterNSW's role in operating supplementary events and ensuring its proper accounting is made transparent and more efficient through a mandatory condition requiring that these events can only be accessed by placing a water order.

The proposed **announcement procedures for supplementary events** (clauses 41, 52 and 53) are of further concern. The WSP currently provides that the Minister will announce a supplementary water event, despite the end-to-end operation of the event (forecasting, managing the event and debiting extracted water from relevant accounts) being the responsibility of WaterNSW. Making the Minister rather than the Operator responsible for the announcement of the decision creates an unnecessary extra layer of government intervention and inefficiency. The extra intervention may cause water users to miss out on access to an event due to potential delays with issuing approvals to pump.

A more efficient arrangement is for these events to be managed in accordance with a WaterNSW-developed protocol that DOI-W audits. Under such a protocol WaterNSW would report event outcomes to DOI-W after the fact. These arrangements would be auditable by DOI-W, who could make recommendations to improve their operation. We **recommend** that each of the above provisions be conferred to WaterNSW through its defined role as the Operator in the Macquarie and Cudgegong Regulated Rivers WSP.

In all its dealings involving water, **WaterNSW advocates for its role to be clear, consistent, efficient and driven towards achieving practical and long-term solutions for end-users.** More broadly, we also endorse the roles of water agencies as being non-duplicative and easy to understand. The Macquarie and Cudgegong Regulated Rivers WSP presents an opportunity for WaterNSW to be clearly conferred the responsibility for making Available Water Determinations (in line with the legislation) (see clause 41 of the draft replacement WSP). These are currently made by the Department based on WaterNSW's information, and later published on the WaterNSW website.

**Consistency, reduced duplication and efficient river operations** will be achieved by WaterNSW having responsibility for the end-to-end process in both Available Water Determinations and the functions described above. We **recommend** that DOI-W reconsider the role of WaterNSW in the making of Available Water Determinations.

We acknowledge the work required to codify and establish auditing processes, and **recommend** the development of a similar process to the management of supplementary access. For example, where the WSP requires a protocol, WaterNSW could develop this for Ministerial approval, after which the function is transferred to WaterNSW as the Operator and audited annually by DOI-W.

**It is critical that the Macquarie and Cudgegong Regulated Rivers WSP accurately describes WaterNSW's role as the Operator** to ensure market certainty and operational flexibility to the affected water resources and end-use customers.

### 2.3. CLEAR, EFFECTIVE RULES AND TRANSPARENT RULE-CHANGING PROCESSES

WaterNSW continues to advocate for a clear and effective rule-making process in legislation. Within the increasingly complex framework that involves legislation, WRPs and WSPs, consideration should be given to **improving regulatory mechanisms to:**

1. **allow greater flexibility for the timely resolution of minor, less material rules or identified drafting errors;** and



2. **create a prescribed rule-change process** that allows market participants to submit proposed changes during the life of a WSP where current rules are not achieving the desired outcomes.

These points are not limited to regulated WSPs. As to the first point, stakeholders have previously identified drafting errors in unregulated WSPs outside the Macquarie-Castlereagh resource and have had mixed results in seeking timely amendment to the affected WSP.

Currently WSPs are only comprehensively reviewed every 10 years to align with their expiration. While this period may be adequate for comprehensive end-to-end reviews, it is too long for minor amendments that arise as WSPs are delivered (or as drafting errors are identified). Introducing a prescribed rule-changing process, like that envisaged at point 2 above, will enable a timelier and more adaptive resolution of both minor errors and unintended consequences of WSPs on an as-needs basis. It will produce better outcomes for customers and government alike.

A relevant example of this challenge is the drafting error in the 2016 Macquarie and Cudgegong Regulated Rivers WSP, which at clause 44(2)(a) erroneously refers to Schedule 3 rather than Schedule 2 of the WSP. This error creates confusion and frustration for licensees and regulators alike, in determining which rules apply and being tied to the implementation of unintended outcomes. WaterNSW is pleased to see this particular drafting error resolved in the draft replacement WSP.

The electricity market (through the Australian Energy Market Commission (**AEMC**)) is a useful analogy in this regard. The AEMC, as rule-maker, contains an official process that allows customers to submit rule changes to ensure the continuous improvement of the electricity market.

Submissions must detail the proposed new rule; how it affects or addresses the perceived deficiencies of an existing rule; how the proposed new rule will achieve relevant energy objectives; the expected or potential impacts of the new rule; and, where a proposal is submitted by a regulatory body, a summary of the consultation conducted by that body. Critically, stakeholders (including customers) have the opportunity to comment on any proposals.

Adapted to the water market, this type of prescribed rule-change process would produce a flexible and responsive framework that encourages transparency and certainty. The ability to propose rule-changes (and for those changes to be adopted before the expiration of a WSP) creates customer choice and improves acceptance of the legal framework, as customers are actively contributing to the process rather than waiting lengthy periods for a WSP's review or replacement. The consultation required in order to achieve a rule change would achieve customer buy-in, promote greater understanding, and therefore improve unintentional non-compliance.

As a natural resource subject to frequent (and more extreme) and increasingly extreme climate variations, water management (and its market) requires flexibility and certainty, but not at the expense of restrictive and stagnant frameworks. Our proposal is reflective of a maturing market and improves the market's operability and processes in line with the public interest. The current drought has brought into sharp focus the **need to reconsider and redefine this process**.

## 3. MACQUARIE BOGAN UNREGULATED RIVERS WATER SHARING PLAN

### 3.1. ACTIVE MANAGEMENT

The Macquarie Bogan Unregulated WSP represents one of the unregulated WSPs that will move towards a system of **active management** with the introduction of water reform to environmental flows, expected in 2019 as part of broader reform work currently being undertaken. Active management will be used to determine what volume of flows can be accessed and when, in defined ways but with consideration of specific events.

The goal of active management is to provide the System Operator with the ability to manage unregulated systems in a similar way to how we manage regulated rivers during supplementary events. For this reason, it will be critical that the Macquarie Bogan Unregulated WSP (and others) includes the ability to apply mandatory conditions to licences. For example, a mandatory condition similar to that described in section 2.2 above for the Macquarie and Cudgegong Regulated WSPs, that water must be taken in accordance with an order (with procedures set by the Operator).

In an actively managed system, WaterNSW as the System Operator will actively monitor (including forecast and report), measure water use and be able to actively share water between customers (through processes including water ordering). The operation of this system will be assisted by the NSW Government's metering and telemetry reforms.

Active management of unregulated systems was an important recommendation of WaterNSW's submission to the Water Reform Task Force's discussion papers in April 2018. We are pleased that the Department has taken this recommendation onboard in furthering water reform and, the replacement unregulated WSPs. We note the large body of work required to ensure that this system is implemented with community understanding and acceptance, and we acknowledge that WaterNSW continues to work with an intergovernmental panel to achieve this optimal outcome.

The replacement Macquarie Bogan Unregulated WSP contains provisions allowing the Minister to amend the extraction component of access licences to impose individual daily extraction limits on certain licences. This facilitates active management but does not of itself implement active management through the current WSP. We look forward to DOI-W consulting on this policy proposal and working with WaterNSW to create rules that we can operate to. WaterNSW is the appropriate authority to implement active management within the rules and expand its role as Operator into the unregulated systems. We **recommend** that later amendments to the Macquarie Bogan Unregulated WSP that incorporate active management **clearly identify WaterNSW as the Operator for these purposes**.

### 3.2. ROLE OF OPERATOR

More broadly, the implementation of active management in the Macquarie Bogan Unregulated WSP (as well as the Gwydir and Barwon-Darling) presents an opportunity for all unregulated WSPs to identify WaterNSW as the Operator. The current drafting makes the Minister responsible for all implementational components of the plan, which is a **missed opportunity to provide a consistent framework across all WSPs** and make clear our role on-ground implementational role.

We make this statement noting that our role as "Operator" in an unregulated system does not include river operations as it is traditionally perceived in the regulated systems. In unregulated systems our

role is defining and managing events, flow classes, and cease-to-flow conditions across the state. We also make users aware of these conditions through evolving technology, for example the recently-launched flow conditions “traffic light” system in the Barwon-Darling. We are currently exploring how a similar type of system can be rolled out to other unregulated systems, particularly those like the Macquarie Bogan Unregulated river where active management will likely be implemented.

Our role as Operator in unregulated systems will become more critical with the implementation of active management in these systems. It will evolve to provide greater transparency of access arrangements as well as daily communications and specific event management. Whereas our current focus in unregulated systems is administering the regulatory framework, it will soon expand to include system operations.

Nevertheless, there are some key measures that are clearly the **role of WaterNSW as rule implementer** and should be specified as such (as opposed to subsequently conferring these functions to WaterNSW through our Operating Licence, for reasons highlighted above). In particular, clause 46A(5) of the replacement WSP provides for the Minister to determine and notify the licensee of the flow classes that apply for days where accurate flow data is not available. Further, the notification to affected licensees includes publishing a notice on the Department’s website.

The current drafting of this clause misidentifies the role and function of the Department as the Minister for the purposes of determining daily flows in these circumstances. These functions are part of WaterNSW’s daily operations and should be **conferred directly to WaterNSW in the WSP**, along with directing licensees to the WaterNSW website where this information is routinely published.

We believe that the above suggestions are minor and non-contentious, but their resolution will have important and positive impacts. Correctly identifying the appropriate authority will benefit end users and their understanding of the system, which in turn will improve compliance.

## 4. CASTLEREAGH UNREGULATED RIVER WATER SHARING PLAN

Similarly to the Macquarie Bogan Unregulated WSP, the replacement Castlereagh Unregulated River WSP makes the Minister responsible for all implementational components of the plan and does not identify WaterNSW as an individual entity with responsibility for the implementation of the plan. This is a **missed opportunity to provide a consistent framework across all WSPs** and make clear our role on-ground implementational role.

Further, and although active management is not being trialled in the Castlereagh Unregulated River at this stage, it is an innovative operational measure and one that WaterNSW ultimately advocates for across all unregulated rivers. Its implementation will expand our role as Operator in unregulated systems, which will evolve to provide greater transparency of access arrangements as well as daily communications and specific event management. The result will be active participation in system operations in unregulated systems alongside our current role of administering the regulatory framework.

## 5. MACQUARIE-CASTLEREAGH SURFACE WATER RESOURCE PLAN

WaterNSW has previously made public submissions to both the Lachlan Alluvium WRP and the Gwydir Surface WRP, which respectively represented the first alluvium and surface WRPs to be released for public comment. Many of the comments WaterNSW made in response to those WRPs are applicable to the Macquarie-Castlereagh Surface WRP.

It is also prudent to **accurately identify the roles and responsibilities of water agencies** in a consistent manner throughout all WRPs. For example, the description of WaterNSW (and its primary instruments) on page 14 of the Macquarie-Castlereagh WRP should mirror the description of WaterNSW on page 14 of the Lachlan Alluvium WRP (in particular, referring to the WaterNSW Operating Licence 2017-22). Each subsequent WRP should use the same language, as the statement represents who WaterNSW is and is not bespoke to each plan.

WaterNSW continues to support **outcomes-based water resource plans that show functional separation of the market participants and reduce market complexity** to facilitate a modern, efficient, effective and responsive water market that is understood by all participants. Our comments to each of the above plans are made in furtherance of this goal.



## **SUBMISSION: MACQUARIE SURFACE WATER RESOURCE PLAN**

### **Context**

The Commonwealth Environmental Water Holder (CEWH) appreciates the opportunity to provide a submission on the draft Macquarie Surface Water Resource Plan (draft Macquarie 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, including the Macquarie Marshes Ramsar site,
- the Public Governance, Performance and Accountability Act 2013 (PGPA Act), to ensure the efficient and effective use of Commonwealth resources (held environmental water), and
- 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 ecological communities, migratory species protected under international agreements (Bonn Convention, CAMBA, JAMBA or ROKAMBA).

### ***Mitigating future risks***

The Commonwealth Environmental Water Office (CEWO) has sought assurance through the NSW Stakeholder Advisory Panels (SAP) that the operation of the WRP and water sharing plan (WSP) will not compromise the statutory responsibilities of the CEWH (noted above) or meeting of watering requirements of priority environmental assets (Basin Plan s10.17).

The CEWO appreciates that a number of significant policy and regulatory issues raised in the development of WRPs have yet to be resolved, and that the outcomes of these issues will need to be incorporated into the Macquarie WRP. These matters include:

- protections for environmental water currently being developed through the work of the NSW Water Reform Action Plan and the Intergovernmental Working Group
- floodplain harvesting (FPH) policy development
- final apportionment of the Northern Basin shared reduction
- Northern basin toolkit implementation, including infrastructure projects.

Current modelling and other material presented through the SAP processes have not been able to fully represent the impact of possible rule changes, and so there remains a moderate to high degree of uncertainty about their implementation. While we acknowledge the difficulty in providing complete information and modelling, this submission presents a number of residual risks, and recommends possible treatments to limit unintended consequences.

***Structure of the submission***

**Part A: Catchment specific issues**

1. Planned environmental water
2. Held environmental water
3. Operational strategies and transparency
4. Other matters

**Part B: State-wide issues**

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

## **PART A: CATCHMENT SPECIFIC ISSUES**

### **1. Planned environmental water**

Planned environmental water (PEW) represents the volume and flow characteristics that existed at the establishment of the Basin Plan and are a key setting for determining 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 the ecological character of the Macquarie Marshes Ramsar site, the achievement of ecological objectives at other priority assets and the capacity of the CEWH to support healthy river systems in the Macquarie catchment. Where the operation of the WRP may compromise meeting the environmental watering requirements (s10.17) further regard may be required for additional rules, refinement of arrangements or, in cases, clarification provided. Suggestions to this effect are provided below.

#### ***Beneficial flooding provided by the Flood Mitigation Zone***

Maintaining the ecological character of the Macquarie Marshes Ramsar site, and achieving other environmental water requirements represented in the long term watering plan and the Basin-wide environmental watering strategy, are reliant on dam spill events and beneficial flooding provided by flood mitigation zone (FMZ) releases. To meet objectives related to waterbird breeding and native vegetation extent/condition is reliant on Held environmental water (HEW) being managed in conjunction with flood mitigation operations and natural flow events. Any changes to the volume of water held behind the FMZ or other operational releases of PEW pose a risk to these ecological objectives and targets.

The draft Macquarie WSP has changed the text on how much water is held in storage following dam spills<sup>1</sup> (refer also section 2 of this submission) and states that “the operator may make releases from the Burrendong Dam FMZ to provide beneficial flooding for the regulated Macquarie River, Macquarie Marshes, Marebone floodplain and the effluent creeks of the Macquarie River”<sup>2</sup>. This text increases the discretion for river operators in making releases from the FMZ, however, it has the potential to affect achievement of objectives under the Basin Plan, the LTWP and the maintenance of the ecological character of the Macquarie Marshes Ramsar site. Releases from the FMZ should be made by river operators unless deemed inconsistent with the FMZ operation rules<sup>3</sup> and in consultation with the Flood Panel. The Flood Panel should include representation from NSW Environmental Water Manager.

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<sup>1</sup> Draft Macquarie Regulated WSP – Clause 83 (1) (b) (i)

<sup>2</sup> Draft Macquarie Regulated WSP – Clause 84 (2)

<sup>3</sup> Draft Macquarie Regulated WSP – Clause 84

To ensure that the operation of the plan does not compromise priority environmental assets, and no net reduction in planned environmental water, the following are recommended:

- The Macquarie WRP (s 4.1.1) should be updated to identify the beneficial flooding<sup>4</sup> resulting from FMZ as PEW, consistent with s10.09 (1) of the Basin Plan;
- A commitment to the documentation of operational procedures for dam spill and FMZ is provided within the WRP/WSP to provide public transparency in discretionary provisions. The documented procedures should establish the processes for consultation with the NSW Environmental Water Manager and periodic review of procedures; and
- Inclusion of a definition of the term Flood Panel in the WSP dictionary and identify where details of membership and terms of reference can be sourced.

### ***Environmental water allowance***

The draft Macquarie WSP removes the stated objectives of the environmental water allowance (EWA). This creates less certainty in the long-term protection of PEW for its intended purpose to support the priority environmental assets in the Macquarie catchment.

The draft Macquarie WSP<sup>5 6</sup> states that a river “operator may release water from the EWA on the request of the NSW Environmental Water Manager, in accordance with an applicable environmental watering plan”. This terminology provides flexibility for river operators in consideration of the multiple objectives for water resource management, however this has the potential to affect the designed outcomes from PEW delivery. EWA ordered by the NSW Environmental Water Manager should be made by river operators unless deemed inconsistent with the Incident Response Guide, or similar documentation, and in consultation with the EWAG.

The WSP has removed detail about the formation of, membership, operation and considerations of the EWAG (formerly the Macquarie EFRG). This group is a key consultative mechanism for enabling the views of local communities to be regarded in relation to environmental watering (s10.26), and to provide for the coordination of both HEW and PEW to maximise environmental outcomes. We encourage the Department of Industry (DoI) to provide explicit reference to the EWAG within the WRP and/or the WSP to formalise this valued forum.

It is recommended that:

- the discretionary treatment of the EWA be removed from the WRP, with the text amended to require the release of the EWA, however subject to agreement by the NSW Environmental water manager and advice by the EWAG;

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<sup>4</sup> Draft Macquarie Regulated WSP – Clause 84 (2)

<sup>5</sup> Draft Macquarie Regulated WSP - Clause 62(1)

<sup>6</sup> Draft Macquarie Regulated WSP - Clause 68 (1)



- the WRP/WSP formalise the function of the EWAG in advising on the coordination of environmental watering;
- includes notes that indicate where details of membership and terms of reference of the Flood Panel; and
- an annual review process is formalised within the WSP to provide public assurance in the discretionary management of PEW provisions (e.g. operation of the FMZ).

***Protection of PEW and enabling environmental watering between connected water resources***

The draft Macquarie WRP<sup>7</sup> identifies a range of rules and arrangements to facilitate some environmental watering between connected water resources, such as the regulated Macquarie and unregulated parts of the Macquarie Marshes and Barwon-Darling. However, some of these rules<sup>8</sup> only provide protection for the active sub allowance of the EWA<sup>9</sup>. The translucent sub allowance of the EWA and held environmental water (Commonwealth and NSW) are not protected from extraction through any of the unregulated sections of the Macquarie, such as the Gum Cowal/Terrigal and Lower Macquarie River. This limits the capacity to achieve targeted environmental outcomes in the Lower Macquarie and Barwon rivers, and to maintain the ecological character of the Macquarie Marshes Ramsar site (e.g. Wilgara on the Gum Cowal/Terrigal system).

The high risk ratings for water available to the environment in the lower Macquarie River (within the WRP risk assessment) also emphasise the need for additional mechanisms being included in the WRP/WSP to protect environmental water within the unregulated parts of the system and to enable watering between connected water resources.

We acknowledge the on-going work through the Water Reform Taskforce and Intergovernmental Working Group to develop mechanisms to protect environmental water and ensure the WRP allows flexibility to incorporate the associated regulatory measures where agreed. In this context the WRP should allow for the possible future application of active management arrangements in the Macquarie to complement work being undertaken in other catchments. The incorporation of future measures will require a pathway for on-going investigation and development.

To support on-going improvements in operational strategies that enable environmental watering, the WRP could include text that guide:

- establishment of consultative arrangements (e.g. EWAG) that support the planning and delivery of environmental watering actions between catchments;
- event-based operational decision-making;
- an annual review process that would provide public assurance and support on-going improvement in procedures; and

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<sup>7</sup> Draft Macquarie WRP - s4.4

<sup>8</sup> Draft Macquarie Unregulated WSP – Clause 53 (27)

<sup>9</sup> Draft Macquarie Regulated WSP – Clause 68

- updated objectives in the unregulated WSP to protect connectivity with the Barwon-Darling.

It is also recommended that Clause 53 (27) of the Macquarie Unregulated WSP should be amended to refer to Part 10 Division 2, to ensure protection of both active and translucent sub allowances of the EWA within the unregulated reaches of the Macquarie catchment.

## 2. Held environmental water

### *Protection of held environmental water*

The Macquarie Unregulated WSP does not provide protection for HEW (and the translucent EWA sub allowance) from extraction. Current rules do not ensure that environmental water is delivered on top of other operational flows, such as replenishment flows, and in some cases allow for the legal extraction of held and planned environmental water. Whereby held and planned environmental water could be used to substitute for replenishment/stock and domestic flows. Replenishment, stock and domestic flows were previously provided by the socialised pool of resource or uncontrolled flows. The operation of the WSP currently allows for the extraction of water that has been provided for the environment, which could compromise the achievement of environmental objectives in the Macquarie Marshes Ramsar site and other priority assets, and eroding the effectiveness of HEW. Protecting HEW while providing replenishment flows for stock and domestic purposes is discussed in further detail under the following section.

The CEWO is seeking assurances that the rules governing the take of water will protect the delivery of environmental water. 'Usage' fees are paid by the CEWH, as per other licence holders, setting the service level expectation that the held water will be delivered to achieve its intended environmental purposes. The risk of substitution and legal take noted above suggest that additional rules are required to prescribe the supply and extractive take of water in a manner that is distinct from any environmental water provisions, ensuring the efficient and effective use of Commonwealth resources.

These issues were raised and acknowledged during the Macquarie SAP meetings. We acknowledge that a program of work is currently underway in NSW to support the protection of environmental water however the outcomes of this work are yet to be finalised and incorporated into the current draft plan. The CEWO look forward to our continued engagement on this matter.

It is acknowledged that NSW has made a commitment for the better protection of environmental water. However, operating rules that provide for the active management of environmental water are yet to be developed specific for the Macquarie resource area to ensure that the plan does not compromise environmental watering requirements of priority environmental assets and ecosystem functions (Basin Plan s10.17) and enables the efficient and effective use of held environmental resources.

**Replenishment Flows**

The draft Macquarie WSP provides rules (some trigger based) for the provision of a number of replenishment flows<sup>10</sup>. However, where these triggers are met by or where water is sourced from held and planned environmental water deliveries NSW operators may not provide such a flow. As a result held and planned environmental water can be used to substitute for replenishment flows. This can impact on achievement of environmental objectives, reduces the effectiveness of HEW and shifts the cost of providing these flows from the socialised pool of water users in the Macquarie to the broader NSW and Australian public. Water released to support environmental outcomes should not be used to substitute for these replenishment flows.

Given their discretion in the delivery of replenishment flows river operators should consult with environmental water managers when planning and delivering replenishment flows to ensure the efficient use of water and that environmental outcomes are not compromised.

The draft Macquarie Long Term Watering Plan (LTWP)<sup>11</sup> names Milmiland Creek as a priority environmental asset within the Marra Creek system. The draft WSP should also specify the stock and domestic/replenishment flow to Milmiland Creek<sup>12</sup> and the source of water (e.g. uncontrolled flows) for this flow to formalise and recognise this practice.

The draft Macquarie Regulated WSP has changed the definition of replenishment flows to remove reference to stock, domestic and town water use, however, the Macquarie Unregulated WSP specifically identifies that stock and domestic licences can extract replenishment flows<sup>13</sup>. This inconsistency should also be addressed.

To ensure that environmental water does not substitute for replenishment flows, it is recommended that the Macquarie Regulated WSP:

- include a subclause (e.g. Division 4, clause 77) that specifies that replenishment flows may not be sourced from held or planned environmental water;
- include the Milmiland replenishment flow and the source of water for the flow (e.g. uncontrolled flows);
- require river operators to consult with environmental water managers when planning the delivery of replenishment flows to help ensure efficient water use and ensure environmental outcomes are not compromised; and
- include provision for the periodic review of operational procedures as risk strategy to ensure the operation of the plan does not compromise environmental watering or the efficient and effective use of HEW.

<sup>10</sup> Draft Macquarie Regulated WSP – Clause 77 (4)(5)(6)

<sup>11</sup> Draft Macquarie LTWP - Part B, s1.12

<sup>12</sup> Works approval conditions on a private regulator allow the Milmiland landholder to request a stock and domestic flow when there has been 260 days of no flow in Milmiland Creek. The regulator has to be opened until 1,000 ML passes or for 30 days.

<sup>13</sup> Draft unregulated WSP plan (Macquarie Bogan) – clause 53 (26)

### 3. Operational strategies and transparency

#### ***Dam operation during floods and spills***

The draft Macquarie WSP<sup>14</sup> introduces ambiguity and changes the intent of dam operation during floods and spills by a simplification of text that requires the storage operator to “leave the storage as full as possible”. This has the potential to affect the provision of PEW related to dam spills and FMZ that may compromise the meeting of environmental watering requirements of priority assets.

To avoid misinterpretations in operational procedure, it is recommended that the Macquarie regulated WSP should maintain the reference to full supply level in Clause 83 (1)(b)(i). This should be associated with the definition and quantification of the term ‘Full Supply Level’ within the WSP dictionary.

#### ***Align general security account spill rules***

The proposed changes to address inconsistencies between Cudgegong and Macquarie account rules are supported.

#### ***Frequency of account reset***

The draft WSP allows for accounts to reset multiple times a year whenever the Burrendong Dam re-enters the FMZ. After the accounts are reset the first time in a water year, trade can occur between more active and less active water users, however if accounts are reset multiple times in a water year then purchased water could be socialised back to the seller. Multiple resets can undermine market confidence and stifle trade, as well as impacting forward planning for high water users. As such, while not supported at the SAP we propose that a period of at least 6 months must elapse before any additional resets are allowed which is consistent with changes proposed in the Lachlan surface water WPP.

To ensure consistency in the application of state-wide processes we encourage NSW to limit the frequency of account resets to a minimum of 6 months before additional resets are permitted.

#### ***Increase in volumetric limits***

During the SAP process the NSW Department of Industry presented information that recommended an increase to the volumetric trade limit on Bulgeraga Creek from 33 GL to 45 GL<sup>15</sup> based on a better estimate of channel capacity. As raised during the SAP process, such a change could increase water trade and prompt increased development. The proposed changes have the potential to increase competition for channel capacity, particularly during peak periods, which could impact environmental deliveries and result in increased risk to priority environmental assets.

To protect the environmental values of this section of the Macquarie catchment and downstream assets, the CEWO asks that the WRP acknowledges the potential environmental risks associated with an increase to the volumetric limit, and that the Monitoring, Reporting and Evaluation Plan include provision requiring reporting on any

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<sup>14</sup> Draft Macquarie Regulated WSP – Clause 83 (1) (b) (i)

<sup>15</sup> Draft Macquarie Regulated WSP – Clause 55 (Table A), p 42

changes to channel capacity limits and delivery shortfalls that may result in the operation of the plan compromising the environmental watering requirements of the Ramsar site.

To mitigate any potential risks to environmental water and the Macquarie Marshes associated with an increase in trade limits at Bulgeraga Creek, the CEWO suggests that the WRP include provisions to:

- ensure environmental water managers and licence holders are consulted in the event there may be competition for channel capacity to provide equitable access to water;
- ensure there are strategies in place to mitigate risks of channel capacity competition and increased development, including strategies to ensure the priority environmental assets are not compromised by the rule changes; and
- monitor and report channel capacity limits, delivery shortfalls and environmental consequence from under delivery.

### ***Conversion of licences***

The NSW Department of Industry has sought advice on future provisions to enable the conversion of high security licences in the regulated river system to unregulated access licences in connected upstream water sources. Without further detail on the proposal, such as the drivers, potential benefits and what limited scope may comprise, the CEWH is not in a position to support the proposal at this stage.

Situations where such a transfer could have unintended environmental impacts are any unregulated water sources in the Macquarie with a medium or higher risk of having zero flow periods and insufficient base flows, with the existing distribution of unregulated access licences.

Of particular concern is the shifting of take into upstream unregulated tributaries and its potential to reduce unregulated inflows in the Macquarie River. This may compromise the achievement of replenishment flows with uncontrolled flows, lead to less supplementary take<sup>16</sup>, as well as impacting connectivity between unregulated and regulated systems, and with the Barwon-Darling.

We strongly encourage the Department's undertaking for further assessment of environmental impacts and stakeholder consultation to inform the consideration of this provision in this, and other catchments where prepared. This assessment should consider risks to meeting the environmental watering requirements (Basin Plan s10.17) in the unregulated tributaries, and PEW in the regulated system including the provision of replenishment flows downstream.

We encourage further assessment of the proposal to be conducted, with specific analysis reported on changes in PEW and impacts on priority ecological assets and on hydrological connectivity between unregulated and regulated systems within the Macquarie River and with the Barwon-Darling. Until such analysis is undertaken the CEWH is unable to support this proposal.

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<sup>16</sup> Draft WSP s61 (2)(c) & IGA Schedule D. cl32: protects unregulated inflows up to 100 ML/d at Mungindi in the period September to March in any year

**Identification of environmental objectives**

Schedule E<sup>17</sup> of the draft Macquarie WRP and the Long Term Watering Plan (LTWP)<sup>18</sup> provide environmental objectives for key environmental assets in the Macquarie catchment. However, these objectives do not specifically relate to the critical components, processes and services (CPS) that define the ecological character of the Ramsar site. This makes it difficult to identify whether the proposed objectives will maintain the ecological character of the Ramsar site. It is suggested that additional objectives specifically for the Ramsar site be identified that reflect the CPS. This could be achieved by listing each of the critical CPS for the site and then identifying which of the stated objectives for birds, fish, vegetation are relevant to maintaining each of the critical CPS that define the ecological character of the site.

The draft Macquarie Regulated WSP<sup>19</sup> should be updated to:

- include a reference to the Macquarie Marshes Ramsar site (e.g. The operator must maintain the Macquarie EWA to improve environmental outcomes including for the Macquarie Marshes and the Macquarie River between Burrendong Dam and the Macquarie Marshes, as set out in this Division);
- include reference to specific environmental watering requirements for the Macquarie Marshes Ramsar site and other species listed under international conventions in Appendix 2; and
- reference the Macquarie Marshes Ramsar site Ecological Character Description in column 5 of Appendix 2.

The draft Macquarie WRP and LTWP should be updated to include specific objectives that relate to maintaining the ecological character of the Macquarie Marshes Ramsar site.

**4. Other matters**

The following section outlines suggested minor edits to the draft Macquarie WRP.

***Ecological Character Description of the Macquarie Marshes Ramsar site*****Definition of the Macquarie Marshes Ramsar site:**

- Correction WRP (p 42) - Mole Marsh is not part of the site but U-block is.
- The WRP (p 42) refers to the importance of the marshes for waterbirds. It should also acknowledge the importance of the marshes for meeting other criteria that the site was listed for (i.e. supporting life history stages for native fish; the importance of the site for river red gum).

<sup>17</sup> Draft Macquarie–Castlereagh Surface Water Resource Plan, Schedule E, Table E1, p101

<sup>18</sup> Macquarie-Castlereagh Long Term Water Plan Part A: Macquarie-Castlereagh catchment (Draft for exhibition), Section 3

<sup>19</sup> DRAFT Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 (amended 2019)

Update of Figures:

- WRP Figure 4.1. Key environmental assets and hydrological indicator sites (p 43) would benefit from clarification of how the functions identified in the legend relate to the hydrological indicator sites.
- It would be useful if Figure 4.1 in Schedule J (MER Plan) identified the Ramsar site boundary.

Groundwater:

Section 10.18 of the Basin Plan stipulates that a WRP must have regard to whether rules which ensure that, for priority environmental assets and priority ecosystem functions that depend on groundwater, the operation of the plan does not compromise the meeting of environmental watering requirements.

While groundwater is not a key determinant of ecological character of the Ramsar site, it does ensure that the shallow freshwater lenses beneath much of the marshes do not become saline due to lengthy ponding of water that could occur with the construction of structures to move / divert water in the floodplain.

The rationale provided on p 52 of the WRP for not including groundwater is not clear. It is suggested that a description of why groundwater is not considered be provided. This could refer to the Ecological Character Description for the Macquarie Marshes Ramsar site that indicates that main issue associated with groundwater is ponding of surface water exacerbating the saline groundwater intrusion into the rootzone.

The Ecological Character Description is available here:

<https://www.environment.nsw.gov.au/research-and-publications/publications-search/macquarie-marshes-ramsar-site-ecological-character-description-macquarie-marshes-nature-reserve>

## **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 their use. 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 planning model (e.g. BDL, PBP, SDL model scenarios) being used to support consideration of key policy and operational issues would provide increased confidence in the modelling information.

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

### **6. Monitoring, Reporting and Accounting**

The Basin Plan requires monitoring and formal reporting on the use of environmental water<sup>20</sup>, relating to both planned and held environmental water (Basin Plan 10.46, Schedule 12).

The CEWO looks forward to continuing to collaborate with the NSW Government to establish a framework for monitoring, reporting and accounting of environmental water use. This framework should aim to meet obligations under the Water Act, Basin Plan and the PGPA Act, by:

- satisfying a high level of public accountability, demonstrating the effective and efficient use of the Commonwealth’s environmental water
- establishing a holistic approach to water accounting that provides transparency in the use of held and planned environmental water and its interaction with water managed for other objectives
- providing transparency to the methods used for determining the end of system environmental flows.

It is recommended 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).

#### ***Monitoring, Reporting and Evaluation Plan***

An objective of the Basin Plan (s8.05 (2)) is to ensure that declared Ramsar wetlands maintain their ecological character. However, the draft Macquarie surface water Monitoring, Reporting and Evaluation (MER) plan does not include specific objectives relating to the maintenance of the ecological character of the Ramsar site. It is suggested that the MER plan specifically reference the MER requirements and objectives for the

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<sup>20</sup> Basin Plan - s10.46, 13.14



Ramsar site. Further details of how this could be achieved are provided in section 3 (Identification of Environmental Objectives) of this submission.

The MER plan and associated program logic should be updated to include specific monitoring, evaluation and reporting relevant to maintaining the ecological character of the Macquarie Marshes Ramsar site as suggested in section 3 of this submission.

## 7. Extreme events

The draft Macquarie WRP includes an Incident Response Guide (IRG) that aims to provide transparency in water resource sharing during extreme events<sup>21</sup>. The IRG outlines the priorities and the management responses for each critical level. The “environment” has been identified as a high priority during extreme events.

The critical environmental needs that would be supported by operational procedures during critical dry periods should be more clearly articulated to guide water resource priorities relevant to each critical stage and to enable an assessment of residual risk from operational decisions. The LTWP could support the implementation of the IRG by defining the critical environmental needs, and by including explicit cross references between both documents. These critical environmental needs should be updated to support the critical components, processes and services of the Macquarie Marshes Ramsar site and other Matters of National Environmental Significance in the Macquarie valley.

Stage 2 management actions outlined in the IRG 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 should be set out in a publically available procedures manual, together with strategies for mitigating potential environmental risks under extreme events.

The IRG notes that a resource assessment scenario based on the commencement of the lowest inflows on record as at 2004 should be included to guide an overall determination of the criticality of any potential water supply shortfall. Inflows to Burrendong Dam in 2018 represent a new drought of record based on inflows to the dam, and it is recommended that this scenario be used as the new ‘worst case’ to determine future potential shortfalls in water supply.

The following inclusions are suggested to strengthen the Macquarie Incident Response Guide (IRG) and implementation of the NSW Extreme Events Policy:

- explicit reference to the LTWP during critical periods, in particular the critical environmental watering requirements, including how water needs of the environment will be considered for each of the five stages including the Macquarie Marshes Ramsar site; and
- outline the process for documentation of operational procedures and assessment of risk associated with water resource management during extreme events.

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<sup>21</sup> Draft Macquarie Incident Response Guidelines - Table 2-1

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

- that the communications and engagement plan is documented at the earliest opportunity to give assurance and set out how water licence holders will be consulted during critical periods; and
- detailed information is included in the IRG that outlines the process for reinstating resource allocations as conditions improve and criticality decreases.

## 8. Water Quality

The Water Quality Management Plan (WQMP) aims to provide a framework to protect, enhance and restore surface water quality, supporting the Macquarie WRP and Macquarie LTWP.

The CEWH notes that various risk assessments have not been undertaken for several types of water quality degradation outlined in the Basin Plan due to insufficient information,<sup>22 23</sup> including hypoxic low flow and blackwater events 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.

Operational strategies aimed at treating identified water quality risks should not presume the use of Commonwealth environmental water (CEW)<sup>24</sup>. Decisions on the use of CEW will be made consistent with the statutory function of the independent CEWH under the Water Act. As water quality risks are often exacerbated during extreme events, a cross reference with the IRG could strengthen both documents.

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

- remove reference to Commonwealth held environmental water for the mitigation of water quality risks;
- include mechanism for the periodic review of emerging and existing risks to provide for the effective treatment of risks; and
- include clear links between the WQMP and other WRP documents, i.e. IRG, and LTWP.

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<sup>22</sup> Basin Plan 2012 – Ch 9, s9.02

<sup>23</sup> Water Quality Management Plan – Table 3-1, Table 4-3

<sup>24</sup> Water Quality Management Plan – Table 4-3, pg. 23, 24, 27, 28

## 9. Floodplain harvesting

### *Take through FPH access licences*

The CEWH has provided a submission to the NSW independent review on FPH that outlines our broader policy position. Given that the draft Macquarie WSP<sup>25</sup> does not yet specify the FPH (regulated river) access licence allocations cap, the CEWH's concerns remain and we look forward to continual engagement through this process. The final cap limit should be supported by modelling information that provides an assessment of event-scale impact from the proposed licencing arrangements.

The ecological character of parts of the Macquarie Marshes Ramsar site and achievement of a number of BWS and LTWP objectives are reliant on high flow events that are beyond the scope of environmental water holdings to recreate. Changes to natural flow characteristics (duration, magnitude, recurrence interval etc.) resulting from the licenced take and account rules present a serious risk to the ecological character of the Ramsar wetland an achievement of these objectives. Further consideration is encouraged of potential impacts on the Ramsar wetland, noting that an action that has, will have or is likely to have, a significant impact on the ecological character of a Ramsar listed wetland must be referred for environmental assessment and approval under the EPBC Act.

As indicated in our submission on the independent review of FPH in NSW WRPs, the NSW FPH policy and the establishment of the proposed licence conditions do not appear to consider the future scenario (constraints relaxation) where held environmental water (HEW) is used to enhance natural high flow events as a directed release of water from storage or the current practice of environmental water managers exercising supplementary access to protect a flow through the river system. HEW 'delivered' that result in river flows exceeding channel capacity are at direct risk from being extracted through FPH, impacting the efficient and effective use of the Commonwealth resource.

Rules may relate to event-scale protection for the effective use of HEW, including the reduction in carry-over provisions for FPH are considered to be required. Such rules would be consistent with the NSW policy of no impacts on access rights and water use by third party licence holders.

The Basin Plan requires the explicit consideration of risks associated with water resources and in some cases, requires additional rules to ensure the operation of a WRP does not compromise meeting the watering requirements of priority environmental assets (refer section 10.17).

In the finalisation of the NSW FPH Framework additional rules and/or amended account rules could be considered further, including:

- a reduction in carryover provisions; and
- an action that has, will have or is likely to have, a significant impact on the ecological character of a Ramsar listed wetland, must be referred for an environmental assessment and approval under the EPBC Act.

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<sup>25</sup> Draft Macquarie Regulated WSP – Clause 43

### ***Risk Assessment***

Increased interception from farm dams and FPH has the potential to significantly affect the characteristics of environmental water that can be provided to the Macquarie Marshes Ramsar site. Given the predictions for an increasingly drier long-term climate, the risks associated with increased interception activities do not appear to have been appropriately considered.

Schedule D of the draft WRP considers the risks associated with increased interception from farm dams. This risk was identified as low, even though the volume of water intercepted could be up to 38 GL across the water resource plan area. Page 69 of the WRP also states that: "It is also recognised that growth in harvestable rights is to a large extent offset by reduced access under unregulated river access licences." There is insufficient justification provided for this statement.

While the risk assessment (Schedule D) provides further explanation for the low risk categorisation, it remains unclear why the risk of impacts to the environment associated with interception from farm dams (estimated at up to 34 GL) would be considered low. It is therefore suggested that the risk assessment more clearly describe the method and rationale for assigning a low risk rating to meet the requirements of section 10.40-10.43 of the Basin Plan.

In addition, the WRP references a 10 year old report from CSIRO citing that plantation forestry is a low risk to water resources in the WRP area. More recent data should be used to support the conclusion of "low risk".

The MER plan also specifically excludes monitoring on interception activities. Consideration should be given to including some monitoring, perhaps via remote sensing, to assess any increases in interception activities and associated implications for environmental water.

To ensure that any potential growth in interception activities in the Macquarie catchment address risks to the ecological character of the Macquarie Marshes Ramsar site it is recommended that:

- the risk assessment clarify why the increased interception from farm dams (up to 34 GL) is considered a low environmental risk. This explanation should be supported by peer reviewed and up to date data;
- the MER Plan include a means to monitor increases in interception activities and associated impacts on environmental water; and
- the risk assessment include a mechanism for periodic risk review and mitigation.



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## Part 9 Access License Dealing Rules

1 message

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Fri, Feb 1, 2019 at 1:32 PM

[REDACTED]  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Dear Minister or representative

Firstly, I hope the lack of consultation of Part 9 Access License Dealing rules, was just someones oversight and not done with the hope that it could give snuck past concerned stakeholders.

There are potentially very significant environmental consequences of this rule. Consideration of any scientific input would have seen this rule never make it onto paper for consideration.

The Unregulated and partially unregulated systems above the storages in the WSP area provide important habitat for species that have already undergone significant declines. Some species have already become extinct from these areas. Further stress on these ecosystems that would occur as a result of this rule would likely lead to further localized extinctions and potentially the loss of species that haven't even been described yet.

Some of these areas are home to endemic species (Cudgegong Spiny crayfish), some that are yet to even be described (undescribed spiny cray spp in the Turon River).

I strongly recommend this rule not even be discussed as it is not sustainable in way and could have profound environmental impacts on already stressed areas.

Regards

[REDACTED]

<b>Email address</b>	[REDACTED]
<b>Name of respondent</b>	[REDACTED]
<b>Address</b>	[REDACTED]
<b>Contact phone number</b>	[REDACTED]
<b>Are you an individual or representing an organisation?</b>	Individual
<b>Proposed changes to the Water Sharing Plan for the Macquarie Cudgegong Regulated Rivers Water Source</b>	
<b>Do you have any comments on converting the translucent flow releases with an environmental water allowance for the Cudgegong River?</b>	<p>Changing the environmental water allowance in the Cudgegong River is a good move in principal as it increases the potential for access and active management of that water. However, restricting access to situations when Windamere Dam exceeds 110GL (or 29%) is very limiting to the use of the allowance, greatly diminishing its potential benefit to the environment. Only allowing access when the level exceeds 110GL would remove the ability to provide critical flows at times when they may be needed most. Calculations based on the earliest record of volume for Windamere on WaterNSW gauging site to current day (31/1/2019), show that the water level in the storage has been below 110GL for 20% of the time or the cumulative equivalent of 6.5 years. This demonstrates just how limited access to Environmental Water Allowance would be especially during dry time when it may be needed most.</p>
<b>Do you have any comments on the proposed changes to how water is credited to the sub allowances of the Macquarie environmental water allowance?</b>	<p>Making the 60% 40% rule permanent, removes flexibility in water use, meaning it may not be possible to respond in times of need. For example, when there may be a fish kill occurring that could be alleviated by providing a replenishment flow.</p>
<b>Do you have any comments on the establishment of a replenishment flow to the Macquarie River below Oxely based on historic arrangements?</b>	<p>I think this is important but should also take into account connection to the Barwon Darling on a more regular basis.</p>
	<p>The lack of community consultation given to Part 9 Access Dealings Rules of the WSP is disgraceful for starters. It doesn't take an environmental assessment to recognize that this rule could have potentially profound impacts on the already stressed aquatic ecosystems upstream of the storages in the WSP area.</p>

**Do you have any other comments on the proposed amendments to the water sharing plan?**

This rule should not have even made it to this stage, as any aquatic ecologist or person with any knowledge of aquatic ecology would recognize that this rule is not sustainable, and only has benefits for extractive users with no consideration for the environment.

Measures need to put in place to allow for environmental flows to be delivered at a higher rate than current restrictions allow (river level at Rocky Waterhole). Current restrictions greatly impact the ability to achieve the environmental objectives outlined in the plan in the Cudgegong River with the delivery of environmental water.

There is a lack of legislative protection for environmental water that would protect it against incidence such as the sale approved in 2018.

#### **Response to chapter 4: Environmental water, cultural flows and sustainable management**

**Do you have any comments on the protection of environmental water?**

Environmental water should be protected under all circumstances. There is a particular fault between the regulated and unregulated plans for the Macquarie that allows extraction of environmental water once it leaves the regulated system and enters the unregulated system. This is not acceptable in anyway, and realistically environmental water should be protected all the way to the Murray Mouth in SA.

**Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?**

More should be done to protect and deliver the cultural value of water, as from what I gather there is all talk and no action. Cultural water should be aligned with environmental water as the benefits generally align.

**Do you have any other comments on this chapter, planning for environmental watering (Schedule E) or the no net reduction in the protection of PEW Report (Appendix C)?**

Planning for environmental should be able to be streamlined so it can be more responsive to certain conditions. I strongly support no net reduction in PEW.

#### **Response to chapter 5: Take for consumptive use**

**Do you have any comments on the incident response guide (Schedule G)?**

Under no circumstances should environmental water be sacrificed for incident response unless for a solely environmental issue.

#### **Response to chapter 7: Measuring and monitoring**

**Do you have any**

**comments on the proposed monitoring, reporting and evaluation plan (Schedule J)?**

There needs to be more accountability to assure this is delivered.

**How did you hear about the Public Exhibition of this plan?**

**Please let us know how you heard about the opportunity to make a submission?**

Social media

**Additional Information**

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

No



# Submission to Draft Macquarie-Castlereagh Surface Water Resource Plan

## Macquarie–Castlereagh Surface Water Resource Plan

### SW11 Macquarie–Castlereagh Surface Water Resource Plan Area

Page 31:

Clause 53 (27) of the *Water Sharing Plan for the Macquarie Bogan Unregulated Rivers Water Sources 2012* prohibits the taking of water released from the Macquarie EWA (active sub allowance) from being extracted by unregulated licence holders in the following water sources; Ewenmar Creek, Lower Bogan River, Lower Macquarie River, Marra Creek and Marthaguy Creek. This ensures environmental flow are protected through the unregulated water sources of the Lower Macquarie.

#### **Recommendation**

At present the active component of the EWA is protected but translucent EWA, and Held and Planned environmental water are not.

All environmental water should be protected, by the Water Sharing Plan, from extraction on all unregulated streams, to avoid extractions of environmental water similar to the Lower Macquarie in early 2017, and the Bulgeraga-Gum Cowal in 2018.

#### **Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 (amended 2019)**

**NSW Environmental Water Manager** means the NSW Government department with the conservation role for water-dependent assets. This responsibility extends to managing the NSW environmental water portfolio.

#### **Comment**

I support this initiative fully.

#### **21 Share components of floodplain harvesting (regulated river) access licences**

As at 1 April 2019, the share components of floodplain harvesting (regulated river) access licences total [to be added] unit shares.

#### **Minister's note.**

Floodplain harvesting (regulated river) access licence share components are currently being determined through modelling under the NSW Healthy Floodplains Project. Share component

estimates for these licences will be updated in the Plan once this process is complete. It is currently anticipated that this will occur prior to the amendment of this Plan. Further stakeholder engagement on the floodplain harvesting modelling methodology and key assumptions, together with an independent model peer review process is being undertaken to provide all stakeholders with confidence that the revised modelling is based on best available information.

### **Comment and recommendation**

In March 2018 a public meeting in Dubbo was told that the Department proposes to licence floodplain harvesting, even though it acknowledged that ‘there is currently no monitoring of floodplain harvesting diversions’ and that no-one knows how much is being taken, except that the amount had been ‘grossly underestimated.’ I understand that this is, in part, because landholders either did not know or would not say how much water they were taking, and the NSW government had not, at that time at least, made efforts to find out for itself. The meeting was also told that the government plans to base floodplain harvesting entitlements on recent climate records, or ‘the long-term average if that is greater.’

It is not acceptable that there is no volume of take included in the Draft WSP.

I do not understand how the implementation of the NSW Floodplain Harvesting Policy can be consistent with the Principles of the New South Wales *Water Management Act 2000*, particularly Principles two and three. I urge the Department not to proceed with the implementation of the Floodplain Harvesting Policy. If this policy is to be implemented, it should be after the recommendations of the Murray-Darling Royal Commission related to floodplain harvesting have been implemented. In particular, floodplain harvesting licences should not be issued until all water use is known, including the volume taken from floodplains.

### **68 Release rules for active sub-allowance water**

- (1) The operator may release active sub-allowance water to the Macquarie River downstream of Marebone Weir gauge (421090) or Marebone Break at downstream Marebone Regulator gauge (421088) (or both of those locations), in accordance with:
  - (a) a request of the NSW Environmental Water Manager, and
  - (b) an applicable environmental watering plan.

### **Recommendation**

Change *may release to must release*.

### **75 Consultation**

The NSW Environmental Water Manager may consult with any government agency or the Environmental Water Advisory Group, or both,

#### Comment and recommendation

Confirm the role of the EWAG by changing *may consult* to *must consult*.

### 76 Maintenance of water supply

1. The operator must operate the water supply system in such a way that water would be able to be supplied during a repeat of the worst drought, to meet the following:
  - (a) the annual water requirements of persons exercising domestic and stock rights and native title rights,
  - (b) available water determinations for domestic and stock access licences and local water utility access licence of 100% of share components,
  - (c) available water determinations for regulated river (high security) access licences of 1 ML per unit share.
2. For the purposes of subclause (1), the operator must set aside sufficient volumes of water from inflows into the water source and in reserves held in Burrendong Dam and Windamere Dam water storages.
3. In this clause, **worst drought** means the worst period of low inflows into the water source, as identified in flow information held by the Department before 1 July 2004.  
**Note.** **Reserves** and **water supply system** are defined in the Dictionary.

#### Comment and recommendation

The definition of worst drought is not right or reasonable as it does not include the worst droughts, which have occurred since 2004. Since 2004 there have been three droughts worse than before 2004, meaning that the worst drought before 2004 is the fourth-worst drought since flow records have been measured. The WSP must be amended to include the entire period of record for determining the worst drought. The current inflow sequence for the Macquarie is the worst on record by a significant margin. To use the worst drought before July 1 2004 as a basis for available water determinations is irresponsible.

There is risk associated with not using the lowest sequence of inflows to define worst drought. While the irrigation industry might be happy with the level of risk, the risk is not evenly shared. Stock and domestic users, towns, industry, and the environment bear an unfair burden with this approach.

Stock and domestic and town water supplies seem to be considered only in the valley. There is no indication of water set aside for dry times, or a volume set aside for basic rights. There

are no targets for end of system flows, or consideration of flows from the Macquarie to the Barwon-Darling.

#### **84 Burrendong Dam flood mitigation zone operation rules**

(2) When not in flood operation, the operator may make releases from the Burrendong Dam FMZ to provide beneficial flooding for the regulated Macquarie River, the Macquarie Marshes, Marebone floodplain and the effluent rivers and creeks of the Macquarie River.

#### **Comment and recommendation**

Ensure the better protection of flow dependent ecosystems by change operator *may make releases* to operator *must make releases*.

#### **General comments and recommendations**

##### *Transparency*

There is insufficient transparency in WaterNSW operations, including the Available Water Determination. There can be no effective overseeing of operations unless they are specified in the Water Sharing Plan. The progress made in the preparation of this Water Sharing Plan is undermined by lack of transparency and a lack of capacity for overseeing the implementation of the Water Sharing.

There needs to be genuine transparency, especially in the river operations of WaterNSW. In the interests of transparency include the operational targets of WaterNSW.

##### *Principles of the NSW Water Management Act 2000*

The Principles of the NSW Water Management Act 2000 must be adhered to. In particular, Principles (2) and (3)

#### **(2) Generally:**

- a) water sources, floodplains and dependent ecosystems (including groundwater and wetlands) should be protected and restored and, where possible, land should not be degraded, and
- b) habitats, animals and plants that benefit from water or are potentially affected by managed activities should be protected and (in the case of habitats) restored, and
- c) the water quality of all water sources should be protected and, wherever possible, enhanced, and

- d) the cumulative impacts of water management licences and approvals and other activities on water sources and their dependent ecosystems, should be considered and minimised, and
- e) geographical and other features of Aboriginal significance should be protected, and
- f) geographical and other features of major cultural, heritage or spiritual significance should be protected, and
- g) the social and economic benefits to the community should be maximised, and
- h) the principles of adaptive management should be applied, which should be responsive to monitoring and improvements in understanding of ecological water requirements.

**(3) In relation to water sharing:**

- a) sharing of water from a water source must protect the water source and its dependent ecosystems, and
- b) sharing of water from a water source must protect basic landholder rights, and
- c) sharing or extraction of water under any other right must not prejudice the principles set out in paragraphs (a) and (b).

*Murray-Darling Royal Commission*

Many of the findings of the Murray-Darling Basin Royal Commission are applicable to NSW, in that they may affect the basis of water resource plans. These relate to several matters. Some of the recommendations of the Murray-Darling Royal Commission are included below.

*Transparency*

All opinions and advices the MDBA or the Commonwealth have obtained on the construction of the Water Act, the determination of the ESLT, the setting of the Basin-wide SDL, and all aspects of the SDLAM should be released immediately.

All modelling and other non-disclosed data used by the MDBA to determine the range of water recovery for the Guide and the ESLT Determination Report should be released immediately.

The manner in which the recovery amount of 2750 GL was influenced or adjusted for social and economic outcomes should be fully disclosed.

*Climate change*

The MDBA — or some other appropriately funded body — should be required to urgently conduct a review of climate change risks to the whole of the Basin, based on the best available scientific knowledge. This should be incorporated into the determination of the ESLT.

### *Floodplain Harvesting*

Further research must be undertaken to better understand and quantify the environmental requirements of water resource areas that incorporate floodplains, especially in the Northern Basin. The watering requirements for floodplains are necessary to establish the ESLT for those water resource areas.

A licensing and metering regime for floodplain diversions is necessary. New South Wales and Queensland must act on this issue to restore confidence within their own communities and amongst Basin States. The New South Wales Government must work towards addressing the shortcomings identified in its floodplain harvesting policy. Queensland must act to provide further publicly available information as to how it proposes to address floodplain diversions.

### *The Northern Basin Review*

The 70 GL reduction in the amount of water to be recovered in the Northern Basin should be immediately repealed.

The NBR should be conducted again. The new review should be:

1. based on the best available scientific knowledge
2. conducted with full public disclosure, including of its modelling.

The result of that review is almost certain to show that more than 390 GL needs to be recovered for the environment in the Northern Basin. That water should be purchased through buybacks.

## **Conclusion**

Given the findings and recommendations of the Murray-Darling Royal Commission, it is my view that proceeding with Water Resource Plans before the recommendations are implemented risks the plans not being suitable for accreditation. The Water Resource Plans should be delayed until the matters raised by the Royal Commission have been resolved.

Communities will not accept a plan that does not take into account the requirements of the rivers.

## **Recommendations**

**Submission from [REDACTED] regarding**  
**Draft Macquarie-Castlereagh Surface Water Resource Plan**

Introduction

I've been interested in management of the Macquarie River system for 30 years and interested in the Castlereagh and Barwon Darling for almost as long. It is awful to see how the ecosystem in many places have declined despite people's efforts to look after them – a lot of effort by some people having some success but not enough. These are ancient rivers with ancient ecosystems and species that have gone through a lot, but some features, including the Macquarie Marshes and many River Redgums are not coping with the drought that has been artificially extended and exacerbated by trapping of flood flows and diversions to irrigation. While there are benefits from irrigation we don't yet have the balance right.

The draft WRP makes some improvements but does not make enough changes to halt let alone reverse the unacceptable degradation.

1. The flow regimes that reach the Macquarie Marshes and that come out of the Macquarie and its effluents into the Barwon-Darling should include increased volumes of from periods of flooding and high flows, including sustained flows, plus some more flows at times of low to moderate flow. Periods of no flow and periods of very low flows should be no longer than would naturally have occurred. Advice from river ecologists on the flow regime needed should be followed, for example a fish expert has said that connectivity between the Barwon-Darling and Macquarie Marshes is inadequate and this is seriously limiting fish populations so flows to rectify this are needed.

More water needs to be protected from extraction to achieve this. It should be achieved in ways that achieve multiple environmental, cultural and social objectives both within the lower Macquarie and in be contributing to the Barwon-Darling. The WRP needs to be changed to focus more on protecting and creating appropriate flow regimes that will achieve the environmental, cultural and social objectives, rather than letting irrigation interests determine the timing and volumes of what is left for the environment. Currently, little of the 'planned environmental water' is actually planned to meet environmental needs. Considerable benefits and efficiencies can sometimes be achieved by having multiple objective flows but water destined for irrigation cannot be assumed to meet environmental needs. More water must be designated as environmental water and protected to its environmental destination. Rules to achieve protection are needed.

2. I object to the proposed reduction in planned environmental water in the Castlereagh. The excuse that gauges and meters needed to measure water use and achieve the previous plan were not introduced is very poor. This unusual river system deserves proper management so the full PEW should be retained and the work should be done to implement it.
3. It is urgent to ensure more flows reach the Darling both from the first good rains and subsequently to enable recovery of fish populations, ecosystems and the health of the communities that depend on the Barwon-Darling, including Aboriginal people. Emergency



measures and a rethink of river management for many years to come are needed now. The Macquarie and Castlereagh should contribute appropriately to the recovery of the Darling – this can't all be left to other valleys. Recovery will take years and a repeat of the present situation should be avoided. WRP is due to start is a time when much higher priority should be given to protecting flows for environmental and cultural objectives, so the plan should be substantially changed. If necessary, as seems likely, the commencement of the plan should be delayed while changes are worked out and emergency measures should be put in place in the interim. Emergency measures should apply in the Namoi, Gwydir and Border Rivers areas as well as here and restrict both supplementary access and floodplain harvesting in situations when the flows could otherwise contribute to the Barwon Darling where the flows should be protected from access for irrigation. I suggest the measures include setting of appropriate targets – those derived from the Interim flow management plan of the North West are inadequate so scientific advice on what the Darling needs now and to enable recovery to begin should be sought and heeded. After emergency targets are reached some restrictions on floodplain harvesting and supplementary access should continue until monitoring has demonstrated that the Darling's ecosystems, fish and people are in good health – this will take years. The appropriate restrictions should both vary with the location and depend on how long it is before there are repeated prolonged high flows in each river.

4. Floodplain harvesting: I am pleased that a more serious approach is being taken to regulate floodplain harvesting. It is very unfortunate that this has taken so long because the extent of this activity has had serious environmental impacts both locally and downstream. Effective means of driving compliance will be needed. There should be an embargo on any floodplain harvesting until recovery of Macquarie Marshes and the Darling are well underway. Anyone who harvests floodwater before a prolonged high flow has passed Wilcannia and peaks of sufficient magnitude have enabled fish passage over all Barwon-Darling weirs should NEVER be issued with a floodplain harvesting licence. On establishment of the licencing system the initial share should be 0 ML/ha until these temporary targets have been reached. Use of a licence despite a 0 ML/unit determination should result in revocation.

Before further harvesting is permitted

Once targets to initiate recovery have been reached commencement of tightly constrained harvesting could commence, however the cumulative and local impacts of harvesting works should first be reviewed. Not all works should be used. Constraints should ensure that the environmental objectives proposed in this plan can be achieved, along with cultural and social objectives associated with healthy riverine ecosystems in the Macquarie-Castlereagh and the Barwon-Darling.

It is quite unacceptable that this plan has been exhibited before the process for considering the floodplain harvesting regulatory system has been completed and without proposed limits on volume. The LTAAEL for floodplain harvesting should be no higher than the level of harvesting up to 1994, possibly lower given the need to increase flows to the lower reaches of Macquarie and into the Barwon Darling .

No carry over from year to year should be permitted. The current carry over proposals are quite unacceptable.

5. The computer modelling on which LTAAE Limits are based uses river inflow data up to 2004 but excludes the last 14 years which have been dominated by serious droughts. Those 14 years should not be left out. The plan should be designed to achieve adequate environmental flows at a time of climate change which includes increasing heatwaves, evaporation and transpiration. It may also include more prolonged droughts. While the amount of rain may not decrease, median river flows are likely to decrease and it is possible that future inflows may be more like the last few decades punctuated by briefer very wet periods. The models should be revised and rerun including the last 14 years and the effects of this and LTAAE Limits adjusted accordingly.

If predictions of likely future runoff for 2020-39 can be obtained, the effects on how much water is likely to be left for the environment under the draft WRP or alternative rules could be predicted and publicly discussed.

6. Compliance Assessment Advisory Committees: I object to the Minister being authorized to seek advice from CAACs or State Water Customer Advisory Groups concerning the a plan's assessment and compliance clauses because these groups are skewed toward representation of the extractive use customers: they do not adequately represent members of the NSW public who are concerned about a wide range of effects of water management including effects on environmental, cultural and social values way downstream. These people should also be thought of as customers. Assessment and compliance also affects their interests. While State Water needs to hear views from extractive users whose compliance is part of what needs to be assessed, these groups should not have a special exclusive place in advising the Minister.
7. I support the proposed Cudgegong environmental allowance but it should be protected all the way to Burrendong Dam then added to environmental water. The Macquarie environmental allowance should be managed as the NSW Environmental Water Manager sees fit without current restrictions particularly to its use during the irrigation season.

# Submission to WSP February 2019

Our family has been grazing livestock in the Macquarie Marshes for four generations, we have seen many changes including the building of two major dams in the headwaters of the catchment and the resulting river regulation. This has had massive reductions on our business income and the ability to survive the droughts as water was slowly removed from our land to benefit others much further upstream in the Macquarie valley.

Our family have been involved in the development of the 1986 water management plan then the land and water management plan in 1997 followed by the 2003/4 water sharing plan. Each time the importance of the fragile environment that we run our business has been dealt a blow as protection is lowered.

I feel that the amended Macquarie Cudgegong regulated water sharing plan 2019 continues the same way, with the removal of much of the detail that underpins the sharing of the resource.

I am currently a landholder rep on the local environmental advisory group as well as chair of our landholder group, the Macquarie Marshes Environmental landholders association and have spent the last 4 years representing the EWAG on the stakeholder advisory panel.

As I prepare this submission the South Australian Royal commission has just released its finding to the basin plan as well as many large native fish deaths in the mid to lower Darling. It appears likely to me that much change will be initiated by the events of January 2019 but still believe that its worth commenting on the proposed amendments to the water sharing plan.

Some specific comments on the proposed changes are.

- I support the alignment of general security account spill rules in the Cudgegong.
- I think the Cudgegong translucent flow rules need to become a EWA and have local input working with the current members on the Macquarie EWAG.
- The residual of the Cudgegong environmental water should be sped up and the new subcommittee of the EWAG be included in the management of the releases
- The environmental water from the Cudgegong must remain environmental water as it enters Burrendong dam.
- I am in favour of the sub allowance of the EWA in the Macquarie being managed as all active water.
- I support the inclusion of the Macquarie River downstream of Oxley having a stock and domestic flow but I don't agree with the flow rules.
- I do not accept that the trade limit into the Bulgeraga creek should be increased.
- I do not think that floodplain harvest licences should be issued in the Macquarie as this will greatly influence the volume of beneficial flooding our property receives, as well as reducing the opportunity to operate our unreg licence.
- I have real concerns that the plan fails to provide protection to basic landholder rights in the regulated reach.
- I am disappointed in the removal of the makeup of the EWAG as well as many changes to the EWA including the reference to its role to preserve and protect the ecological function of the Macquarie Marshes.

- I have real concerns that many issues that were raised during the SAP process were deemed out of scope of the review and plan remake. Issues such as the Millmalands creek regulator and changes to the licence conditions of the unreg water sharing plan.
- I have been disappointed in the continued use of averages by the modellers when we all know that the use of averages greatly distorts the models output. I Would much prefer the use of median (middle)

With the development of the water resource plan and the proposed amendments to the water sharing plan there is much expectation that water security will increase. In the Macquarie the opposite has happened with the availability of general security entitlements reducing as a direct result of the basin plan.

I ask that much care and consideration is placed on the above comments as it is critical that the changes have a positive environmental benefit or we will be revisiting the whole process very soon.

Regards Garry Hall

[REDACTED]  
[REDACTED]  
Nyngan NSW 2825

30.1.19

Rowan Murray  
Dept of Industry and Water

Dear Rowan,

I am writing with my concerns about the Water Sharing Plan for the Macquarie and Cudgegong Regulated River Flow.

On behalf of the Nyngan Community including, residents, business owners, and farmers I would like to place an objection to the wording in this plan.

The town and community are suffering greatly from the restrictions being held on Environmental flows over the past decade. The only Environmental flows we have been getting are the ones from rain downstream. This occurrence is certainly not enough to keep things like the environment for fish and for farmers downstream of the Bogan recreational weir.

We would would like to see the first sentence on this plan changed to read as follows- (1) The following replenishment flows shall be made when required.

We would like to see the part that states –“ and when water is available from uncontrolled flows” be deleted from this sentence.

As discussed at the Warren and Nyngan water meeting we would also like to see the Bogan River and other creeks in our area treated in a similar way as the environmental flows that the Maquarie Marshes receive.

There is so much bird and fish life in the Bogan river, Gunningbar and Duck Creeks and it is a shame to see the river and creek systems deteriorate the way that some of them currently are. We appreciate the flows into the creeks and are pleased to hear from the meeting that communication will improve with these flows.

Your help with the matter of the Water sharing plan and other important issues would be much appreciated.

Many thanks

Regards  
[REDACTED]

## Nyngan to Gunningbar Bogan River Association

Dear Sir/Madam

I make this submission as Chairman of the Nyngan to Gunningbar Confluence Bogan River Association.

Our association consists of 15 property owners with Bogan River frontage from the Nyngan township to the Gunningbar confluence.

The following points outline our members concerns and needs;

- The implementation of changes to the wording in the 2000 Macquarie Cudgegong Water sharing Plan has greatly diminished our members water security and was implemented with no consultation or correspondence with our association.
- Prior to the 2000 Macquarie Cudgegong Water Sharing Plan our members relied on the security of a provision of a 1000 megalitres Stock & Domestic & Environmental flow of water sourced from Burrendong Dam delivered by the Albert Priest Channel on a **“when requested”** basis.
- With this security of water replenishment flows, in the early 1980s some of the landholders were encouraged to construct gravity filled turkey nest dams on the edge of the Bogan River & pump stations delivering stock water & household domestic water by poly pipe to cement tanks & troughing extensively throughout the properties at great personal expense to the landholder at the time.
- Since the 2000 Water Sharing Plan the wording has changed to **“if & when available”** & stipulated that it is not water from Burrendong Dam but rather tributary inflows & uncontrolled flows. By the very nature of this new wording an available flow can coincide with a local flooding event & as has happened before has been delivered on top of such an event.
- Since the 2000 Water Sharing Plan, requests which have been made for a replenishment flow have been met with the same response of “our association was never part of the Burrendong Dams plans & accordingly there is no provision of water for us from the dam”. I find this very short on historical facts if not conveniently untrue as we have a copy of the Commonwealth Scientific & Industrial Research Organisation Division of Soils - The Soils and Irrigation Potential of Proposed Irrigation Area Nyngan, NSW by J.R.Sleeman in consultation with B.E.Butler June 1951. This specifically encompasses the stretch of river & adjoining land that our Association represents.
- Along with the changes to the wording of the 2000 Water Sharing Plan other significant approved constructions has further decreased our members water security with as yet no consideration or contingency plan to rectify this decrease in our members security. The constructions of a high flow licensed dam above Nyngan for irrigation purposes, at least one Nyngan town supply & proposal of another two (see Draft Version 2.0 Bogan Shire Council

Nyngan & Cobar Water Security Project: Business Case February 2017) all from river flow with its geographically positioning all but eliminates our local catchment flow opportunities.

- A personal impact of the now lack of security & the effect of the wording changes has had: A flow request has been submitted in the water year of 2017-18 with still no flow. At a time of exceptional drought circumstances we have personally been feeding cattle since July 2017. We still have the capacity to keep feeding with farm grown stored hay on hand but are consigning our entire cow & bull herd to slaughter on Monday 11 February 2019 due to the turkey nest storage & reticulated system being rendered inoperable having become so low killing the fish (predominately native) & leaving water putrid & now too low to even pump. Basically - completely dry. The outlook or future would still buoyant with water security, feed can still be sourced but the current predicament with no replenishment has meant decades of this cattle breeding will be extinct early next week. If the dam was constructed with Stock & Domestic purposes as a priority, one would think the ideal & the system has completely failed & abandoned its core purpose.
- From Nyngan to the Gunningbar confluence there are many natural river waterholes at risk of drying completely, taking with them native fish and other aquatic life without security of replenishment flows.
- With the approval of the Bogan River flow extraction storages above our members & with the changes in the 2000 Water Sharing Plan wording considered, also the considerable cost undertaken prior to the plans implementation to use Burrendong flows efficiently by our members. At a very minimum, we would like to see the wording reverted back to **“when requested”** for a replenishment flow made available from Burrendong Dam in due recognition of the initial inclusion of our area for irrigation purposes in the justification of building Burrendong Dam.

# Draft Macquarie-Castlereagh Surface Water Resource Plan

Submission by Christopher Cox, PO Box [REDACTED]

Email [REDACTED]

I wish to make the following submissions to the **Draft Macquarie-Castlereagh Surface Water Resource Plan**

## 1. ISSUES PAPER

The issues paper contained the following

### 1.1

#### *Principles*

*Principles set down in the Murray-Darling Basin Plan 2012 (the Basin Plan), together with principles set by NSW Government, will guide the development of water resource plans. Principles outlined in the Basin Plan, together with principles set by NSW, will guide the development of water resource plans.*

*Basin Plan principles state:*

- *There will be no adverse impacts on water available to a water access license holder.*
- *There will be no net reduction in the protection of planned environmental water.*
- *The Commonwealth is responsible for bridging the gap between existing limits and Sustainable Diversion Limits (SDL) water.*
- *The water resource plan will meet the requirements set out in the Basin Plan.*

*Additionally, NSW requires that water resource plans:*

- *Balance social, cultural, economic and environment needs of the community and catchments.*
- *Are cost neutral for NSW license holders.*
- *Minimize change for water sharing plans within their initial ten year period*

#### **MY SUBMISSION IS**

The principles enunciated in first and second last dot points are violated if the proposed changes to the spill rules are adopted.

The issues paper listed a number of issues to be discussed. These included

#### *Issue*

*Some Cudgegong licences holders have generous carryover volumes that should be reviewed as they are inequitable*



*Status*

*This issue has been discussed by the SAP, but not finalised.*

### **MY SUBMISSION IS**

There was no proposal in the Issues Paper that changes to the spill rules affecting only licence holders between Windamere Dam and Burrendong Dam were to be considered. So far as I am aware there was no communication to the stakeholders that changes to the spill rules had been added to the issues to be discussed. It is inequitable to accept changes outside the issues raised in the Issues paper.

#### **2. FACT SHEET**

A Fact Sheet headed "Macquarie-Castlereagh Surface Water Resource Plan written November 2018 has been circulated in hard copy and on the Government website. It contains a section headed "Align general security (GS) account spill rules" which commences with the following

*Inconsistencies have been identified with the account management rules between Cudgegong and Macquarie General Security (GS) accounts, which are unique to the WSP. The implications of these rules were not fully understood when the WSP was originally drafted. The WRP process has provided an opportunity to correct these anomalies, provide equity between users and reduce the risk to the resource assessment process.*

### **MY SUBMISSION IS**

It is incorrect to assert that the implications of the unique rules were not fully understood when the WSP was originally drafted. The assertion appears to have been made by a person or persons who were not involved in the drafting of those rules. Unique rules were required to accommodate the unique situation where common rules were required for two separate and completely different irrigation systems. Had special rules not been made the position of licence holders in the Cudgegong valley would have been severely compromised. The discussions regarding the effect, fairness and effectiveness of several models over many months were long and intense and there was no misunderstanding as to what the consequences would be.

#### **3. ORIGINAL WSP**

When discussions commenced over twenty years ago to draft account management rules for the two dams the intention was that each valley (Macquarie and Cudgegong) would have its own set of rules. The participants were informed that a decision had been made that for administrative purposes only one common set of rules would be allowed and they would apply to both valleys. This presented enormous problems as the irrigation and crop characteristics of the valleys and dams were so different. Cudgegong licences had a higher proportion of high security, the crops were mainly perennial and the dam was large in proportion to the catchment and the expectation was that it would fill only infrequently. Burrendong on the

other hand was expected to empty and refill frequently and in one recent season had emptied and refilled twice in one year. Crops to be irrigated below it were expected to be mainly annuals and the consequences of a low allocation were much less severe than upstream. The decision was made to make rules consistent with the requirements of the frequently filling dam and annual cropping and provide special rules to compensate for upstream irrigators for the difficulty this would cause.

Without special protection upstream irrigators would require licences much larger than would otherwise have been needed

Had separate rules been created for each valley it was seen as probable that Windamere irrigators could expect 100% allocations in each year.

#### **MY SUBMISSION IS**

The special rules promulgated to partially overcome the extent to which Cudgegong irrigators were to be affected by the 'One valley' concept should not be changed.

#### **4 REPRESENTATION**

There is a significant imbalance between the lobbying power of the downstream irrigators and those on the Cudgegong River.

Macquarie River Food & Fibre was formed in 1996 as a lobby group and represents irrigators covering an area from Burrendong Dam to the Macquarie Marshes. It represents over 500 irrigated food and fibre producers, and is supported by a number of local businesses and service providers through sponsorship and associate membership.

MRFF aims to further the interests of our members by:

- Promoting sustainable irrigation in the Macquarie Valley
- Promoting and enhancing the positive image of irrigated agriculture in the broader community
- Formulating guidelines and policy on all matters relevant to the irrigation industry
- Developing and implementing the Association's role in the management, delivery and regulation of bulk irrigation water
- Making representation, when necessary, to appropriate Commonwealth, State and Local Government authorities on matters relevant to the irrigation industry
- Liaising with, and where appropriate, supporting other bodies, institutions or authorities representing or affecting the interests of all irrigators
- Educating irrigators and all industry participants to observe and maintain proper practices

By contrast Cudgegong Water Users Association is just that, an association of Cudgegong Irrigators. It has no formal membership, no constitution and no money. The Cudgegong irrigators interest have probably not been well managed at CSC meetings since Trevor Crosby left (about 8 years ago) and may not have been championed at all during the course of the review. Was there any indication during the review that the issue regarding Cudgegong carryover had been changed?

The statement in the Fact Sheet that the implications of the 2002 rules were not fully understood at the time is unsustainable. Special rules were included in the first WSP to recognize the difficulties to be experienced by Cudgegong irrigators (CI) as a result of common allocation rules and to overcome the extreme objection of CI. CI generally have perennial crops mainly Lucerne and horticultural, down Macquarie irrigators (MI) majority have annual crops. If no allocation no sowing but perennial crops require continuity of supply.

Since 2002 cotton has boomed, grapes affected by wine glut and CI have had no money or time to take part in politics but nothing is forever.

#### **MY SUBMISSION IS**

The fact that Macquarie irrigators are represented by an active well funded organization and the Cudgegong irrigators are hardly heard should not prejudice the latter

#### 5 PRESENTATION AT MUDGEES 4 DECEMBER 2018

#### **Flaws in graph**

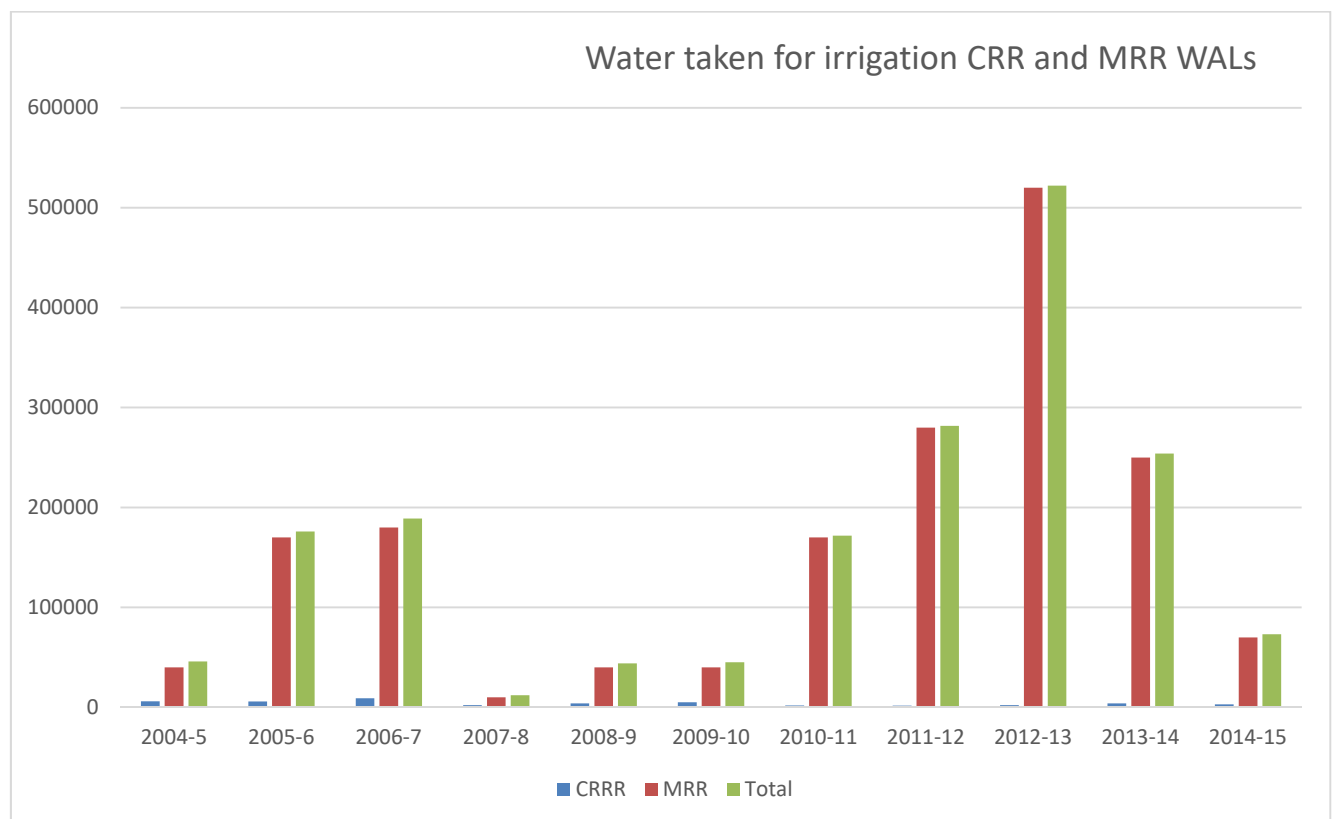
Two graphs purporting to show the effect of the proposed rules had they been in place in 2012 were shown to the meeting. The argument put does not stand up to scrutiny

1. Only one year's (2012) data was included presumably chosen as it provides result most favourable to the argument put. To be of any use the graphs should be extended for the full period.
2. No recognition of effect of conversions to HS which are not eligible
3. The consequences claimed in the address are not borne out in the graphs as the end result for each of the two Water Availability lines at the end of the year are the same in each graph and if there is any difference it is more likely the result of the reset rules resulting from the common allocation rules.
4. The graph shows Water Availability in percentages and storage in volume. It is not possible to reconcile the two.

5. It looks as though the graph has been prepared with the sole purpose of supporting the proposal that carryover rules should be changed.

**Statement “GS allocations have not historically limited water use in the Cudgegong.**

No evidence to support the statement was presented to the meeting. Reference to the graph below (prepared from figures in the issue paper) will show that usage during the three years of low allocations commencing July 2007 were substantially below usage during the previous three years. The collapse of the wine grape industry resulted in low usage in the following years. It should be anticipated that increased usage will result if and when an economically productive horticultural industry is found.



**MY SUBMISSION IS**

Information presented to a public meeting on 4 December 2018 at Mudgee did not support the argument the carryover rules should be changed.

<b>Email address</b>	[REDACTED]
<b>Name of respondent</b>	Lorraine Cairnes
<b>Address</b>	[REDACTED]
<b>Contact phone number</b>	[REDACTED]
<b>Are you an individual or representing an organisation?</b>	Individual
<b>Proposed changes to the Water Sharing Plan for the Macquarie Cudgegong Regulated Rivers Water Source</b>	
<b>Do you have any other comments on the proposed amendments to the water sharing plan?</b>	<p>Macquarie-Castlereagh Water Resource Plan (WRP)  Macquarie-Cudgegong water sharing plan</p> <ol style="list-style-type: none"> <li>1. The water sharing plan must have effective rules for sharing water with the environment.</li> <li>2. An Environmental Water Advisory Group, with community, scientific and government representatives, must be a requirement in the water sharing plan.</li> <li>3. It is simply critical and obvious that the Macquarie Marshes and native fish throughout this system need more water. Unless the Plan is effective in achieving this primary outcome, it will have failed.</li> <li>4. The WRP risk assessment demonstrates that the internationally significant Macquarie Marshes and other environmental assets are under high risk of not receiving enough environmental water. The water sharing plan needs to be improved to ensure that the Marshes receive enough water to be ecologically sustainable.</li> <li>5. I support the proposed Cudgegong Environmental Water Allowance from Windamere Dam. This water must be retained as environmental water once it enters Burrendong Dam.</li> <li>6. The Cudgegong River is managed with an end-of-system target flow. The Macquarie River should also have an end-of-system flow to ensure that it maintains connectivity with the Barwon-Darling. This is very important for sustaining native fish populations and their movements.</li> <li>7. The Macquarie Environmental Water Allowance should be managed through 100% active use with no-use restrictions during the irrigation season.</li> <li>8. There must be clear rules to protect environmental water from any extraction. The water sharing plan should not have been placed on exhibition for public comment without the finalisation of rules to protect environmental water. These proposed rules must be exhibited and comments considered before the plan is finalised.</li> <li>9. The free capture of floodwater for irrigation use is a key issue in the Macquarie Valley. The cumulative environmental impacts of floodplain harvesting must be assessed. It is critical that the volume of floodplain harvesting in the Macquarie is calculated. This water sharing plan should not be on exhibition for comment</li> </ol>

with this information missing.

10. I strongly object to floodplain harvesting licences being allowed up to 500% carryover.

11. In the Castlereagh River, planned environmental water has been reduced. Gauges and meters to measure water use must be installed as a high priority of the WRP.

12. I do not agree that it is appropriate that decisions on water allocations are made using the worst drought prior to 2004. This is a high risk approach to water management under climate change scenarios. Water modelling and decision-making must be based on the most recent drought of record.

#### **Response to chapter 4: Environmental water, cultural flows and sustainable management**

**Do you have any comments on the protection of environmental water?**

The Plan must be supported by adequate departmental Compliance resources to ensure that environmental water is protected and effectively used.

**How did you hear about the Public Exhibition of this plan?**

**Please let us know how you heard about the opportunity to make a submission?**

Communication from peak body

**Additional Information**

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

Yes

<b>Email address</b>	[REDACTED]
<b>Name of respondent</b>	Peter Thompson
<b>Address</b>	[REDACTED]
<b>Contact phone number</b>	[REDACTED]
<b>Are you an individual or representing an organisation?</b>	Organisation
<b>Organisation or Business Details</b>	
<b>Name of Organisation</b>	Coonabarabran Landcare Inc
<b>Who are you representing?</b>	Other
<b>Proposed changes to the water sharing plans for the Macquarie Bogan Unregulated Rivers and the Castlereagh Unregulated River water sources</b>	
<b>Do you have any comments on the minor changes proposed to the water sharing plan for the Castlereagh Unregulated River Water sources 2011?</b>	<p>Planned Environmental Water (PEW) for the Castlereagh River will have less legal protection than the rules in place before 2012, so does not comply with the Basin Plan. This is because the the rules for the Castlereagh above Binnaway referred to flow classes. Despite the fact that gauges were never installed and that these flow classes were dropped in the later macro WSP, these pre-2012 rules were the rules and the proposed WRP represent a reduction in the legal protection of PEW.</p> <p>There is no effective protection of environmental flows that may be designated in an upstream zone of the Castlereagh River, as these flows pass down the system through the other zones.</p> <p>There is no adequate recognition of the special nature of the Castlereagh with much of the water held in and moving through the sand deposits in the river bed.</p> <p>Environmental assets along the Castlereagh are undervalued, including Carex Sedgeland EEC and wetlands at Wingadee.</p>
<b>Response to Chapter 3: Risks to water resources</b>	
<b>Do you have any comments on this chapter or the Risk Assessment (Schedule D)?</b>	All the water sources are under extreme risk for climate change. This has not been dealt with adequately. Review in 10 years is not sufficient.
<b>Response to chapter 4: Environmental water, cultural flows and sustainable management</b>	

<p><b>Do you have any comments on the protection of environmental water?</b></p>	<p>The environment IS the river and should not have to compete with extractive water users. This Plan does not convince me that the environment will be protected.</p>
<p><b>Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?</b></p>	<p>Rivers are the bloodstream of the land and have been since the beginning of time. We need to honour the thousands of years of mutual care and nourishment. This requires real rights for the river, not just tokenism.</p>
<p><b>Do you have any other comments on this chapter, planning for environmental watering (Schedule E) or the no net reduction in the protection of PEW Report (Appendix C)?</b></p>	<p>Planned Environmental Water (PEW) for the Castlereagh River will have less legal protection than the rules in place before 2012, so does not comply with the Basin Plan. This is because the the rules for the Castlereagh above Binnaway referred to flow classes. Despite the fact that gauges were never installed and that these flow classes were dropped in the later macro WSP, these pre-2012 rules were the rules and the proposed WRP represent a net reduction in the legal protection of PEW.</p> <p>There is no effective protection of environmental flows that may be designated in an upstream zone of the Castlereagh River, as these flows pass down the system through the other zones.</p> <p>There is no adequate recognition of the special nature of the Castlereagh with much of the water held in and moving through the sand deposits in the river bed.</p> <p>Environmental assets along the Castlereagh are undervalued, including Carex Sedgeland EEC and wetlands at Wingadee.</p>
<p><b>How did you hear about the Public Exhibition of this plan?</b></p>	
<p><b>Please let us know how you heard about the opportunity to make a submission?</b></p>	<p>Communication from peak body</p>
<p><b>Additional Information</b></p>	
<p><b>I give permission for my submission to be publicly available on the Department of Industry website</b></p>	<p>Yes</p>



<b>Email address</b>	[REDACTED]
<b>Name of respondent</b>	Lynton Auld
<b>Address</b>	[REDACTED]
<b>Contact phone number</b>	[REDACTED]
<b>Are you an individual or representing an organisation?</b>	Individual
<b>Proposed changes to the Water Sharing Plan for the Macquarie Cudgegong Regulated Rivers Water Source</b>	
<b>Do you have any comments on the proposed changes to the general security account spill rules?</b>	Water allocation decisions should be made on best available and most up to date data, rather than restricted to pre-2004 data only.
<b>Do you have any comments on converting the translucent flow releases with an environmental water allowance for the Cudgegong River?</b>	no
<b>Do you have any comments on the proposed management of the residual environmental water for the Cudgegong River?</b>	Environmental water from the Cudgegong system should be retained as environmental water in Burrendong
<b>Do you have any comments on the proposed changes to how water is credited to the sub allowances of the Macquarie environmental water allowance?</b>	no
<b>Do you have any comments on the establishment of a replenishment flow to the Macquarie River below Oxely based on</b>	no

<b>historic arrangements?</b>	
<b>Do you have any comments on proposed changes to the volumetric trade restriction for Bulgeraga Creek.</b>	no
<b>Do you have any other comments on the proposed amendments to the water sharing plan?</b>	<p>Extraction for agriculture and planned environmental flows must be tertiary to river health requirements and stock, domestic and residential needs. Once these needs have been met to a minimum standard additional water volumes can be apportioned appropriately to agriculture and the environment.</p> <p>Environmental flows must be quarantined from future reductions (they are vital to river health and water delivery efficiency)</p> <p>Floodplain harvesting must be quantified and managed.</p> <p>Water "quotas" must be re-examined and scientifically determined rather than politically determined as has been the case historically.</p> <p>Water allocation buy backs must be undertaken to ensure adequate water is available for the environment and communities. This may also require compensation for infrastructure removal.</p>
<b>Proposed changes to the water sharing plans for the Macquarie Bogan Unregulated Rivers and the Castlereagh Unregulated River water sources</b>	
<b>Do you have any comments on the minor changes proposed to the water sharing plan for the Macquarie Bogan Unregulated Rivers Water Sources 2012?</b>	no
<b>Do you have any comments on the minor changes proposed to the water sharing plan for the Castlereagh Unregulated River Water sources 2011?</b>	no
<b>Response per WRP chapter</b>	
<b>Do you have any comments on how Department of Industry Lands and Water can improve the consultation process undertaken?</b>	no

**Do you have any other comments on this chapter or the Consultation Report (Schedule C)?**

no

**Response to chapter 2: Water resource plan area and other matters**

**Do you have any comments on this chapter or the resource description (Appendix A)?**

no

**Response to Chapter 3: Risks to water resources**

**Do you have any comments on this chapter or the Risk Assessment (Schedule D)?**

Utilising pre 2004 drought figures is misleading. Utilising the latest drought figures, and not averaged over all records to ensure a minimum volume required by the environment and communities is retained as a minimum in impoundments  
Consider likely future climate scenarios in water management.  
Agree that better management is required to ensure extraction doesn't exceed allowances  
The strategies proposed under table 3.1 are unrealistic currently. "Protect important lagoons and wetlands", protecting them requires water and none is currently getting past Warren. unless of course the definition of lagoons and wetlands includes on-farm storages.  
Where is the strategy to return allocations to the public  
Flood plain harvesting isn't identified as a threat  
Risk assessment fails to identify the need for end of system flow  
Risk assessment also fails to identify that the Macquarie Marshes are under threat from insufficient water.

**Response to chapter 4: Environmental water, cultural flows and sustainable management**

**Do you have any comments on the protection of environmental water?**

While there is currently insufficient allocated to the environment what little there is must be quarantined and protected. The recent opaque sale of water for "drought purposes" was criminal.

**Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?**

no

**Do you have any other comments on this chapter, planning for environmental watering (Schedule E) or the no**

The EWAG must be included as a mandatory component of WSP planning/management  
Follow the science rather than the politics. Ensure sufficient water is in the system to maintain the system. Then make profits

**net reduction in the protection of PEW Report (Appendix C)?**

from the remainder. Currently its the other way around which is criminal.

### **Response to chapter 5: Take for consumptive use**

**Do you have any comments on this chapter or Schedule F?**

The system is currently over-allocated.  
Carry-over water is a nonsense. Water allocations should be annual and based on on-ground realities rather than out-dated modelling. If allocated water is not used in a given period it cant be used next year, or the year after. It may not exist then (see todays situation)  
Consumption by communities and stock and domestic must be prioritised over irrigator consumption. Profit should never override public health or the environment. The current political climate has ensured profit overrides all other considerations. Allocations for irrigation consumption are too high, allocations should be bought back by the state to ensure adequate water in the system for environment and communities.  
all remaining sleeper licenses must be cancelled immediately. No new licenses can be granted.  
Table 5.1 includes consideration for "growth in use" but not a consideration for "reduction in available resource" ie through drought or longer term climate change.  
5.1.1 dot point 1 identifies water dependant ecosystems as being the highest priority. This is currently not the case and should be enforced.  
SDL should not be calculated based on a long term average. It should be calculated utilising post 2000 figures only as these are the most relevant data set and the least misleeding data set currently available. Averages are no longer relevant in this era of changing climates.  
Allocations must be calculated annually based on actual available water and carry-overs disallowed.  
SDL should be calculated to ensure end of system flow n the Macquarie as there is in the Cudgegong.  
Compliance activities remain insufficient. Additional resourcing is required to ensure compliance.

**Do you have any comments on the incident response guide (Schedule G)?**

Schedule G is seriously lacking in detail.  
Schedule G must be exhibited to allow consideration and comment.  
Current responses to extreme events as witnessed across the northern basin have been demonstrably insufficient. ie "aerators"

**Do you have any other comments on this chapter?**

There is no mention in this chapter of fish screens on pumps. It is believed that millions of fish are annually sucked from rivers by irrigation and community pumps. Fish screening should be compulsory.

### **Response to chapter 6: Water Quality Management**

**Do you have any comments on this chapter or the Water**

Without adequate water flowing in a system the water quality deteriorates to the point of algal blooms, de-oxygenated water and mass fish kills.

<b>Quality Management Plan ( Schedule H)?</b>	Failing to address the core issue of water flow and available volume ensures poor water quality in this and future dry times.
<b>Response to chapter 7: Measuring and monitoring</b>	
<b>Do you have any comments on this chapter?</b>	Monitoring is insufficiently resources. Additional staff are required to monitor irrigator extractions ensuring compliance.
<b>Do you have any comments on the proposed monitoring, reporting and evaluation plan (Schedule J)?</b>	no
<b>Response to chapter 8: Information used to prepare the WRP</b>	
<b>Do you have any comments on chapter 8 or the information or tools used to prepare the WRP (Schedule I) ?</b>	no
<b>Additional responses to Schedules</b>	
<b>Do you have any additional comments on the Schedules?</b>	They must be provided in the document
<b>Additional responses to Appendices</b>	
<b>Do you have any additional comments on Appendix A or C?</b>	Appendix C would seem to make the recent sale of environmental water, presumably to irrigators, illegal. Such sales must not be allowed in future.
<b>How did you hear about the Public Exhibition of this plan?</b>	
<b>Please let us know how you heard about the opportunity to make a submission?</b>	Social media
<b>Additional Information</b>	
<b>I give permission for my submission to be publicly available on the Department of Industry website</b>	Yes

This PDF is generated by the trial version of [Google Forms Email](#) add-on.

<b>Email address</b>	[REDACTED]
<b>Name of respondent</b>	Warrick
<b>Address</b>	[REDACTED]
<b>Contact phone number</b>	[REDACTED]
<b>Are you an individual or representing an organisation?</b>	Individual
<b>Proposed changes to the Water Sharing Plan for the Macquarie Cudgegong Regulated Rivers Water Source</b>	
<b>Do you have any comments on converting the translucent flow releases with an environmental water allowance for the Cudgegong River?</b>	There isn't going to be any more environmental flows, it's all for irrigation
<b>Do you have any comments on the proposed changes to how water is credited to the sub allowances of the Macquarie environmental water allowance?</b>	There shouldn't be "credits" let environmental flows actually be for that purpose and take credits away from irrigation to sustain river flows
<b>Do you have any other comments on the proposed amendments to the water sharing plan?</b>	Yes water sharing is all about trying to rob Peter to pay Paul, if it's not there it's not there
<b>Response per WRP chapter</b>	
<b>Do you have any comments on how Department of Industry Lands and Water can improve the consultation process undertaken?</b>	Stop taking bribes from irrigators
<b>Response to Chapter 3: Risks to water resources</b>	
<b>Do you have any comments on this</b>	I'd like to see a lot more about the water quality science

<b>chapter or the Risk Assessment (Schedule D)?</b>	including the salinity levels that are and will occur due to this proposal
<b>Response to chapter 4: Environmental water, cultural flows and sustainable management</b>	
<b>Do you have any comments on the protection of environmental water?</b>	I think that there is not enough allocated for environmental flows but more for irrigation etc, no extra allocation
<b>Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?</b>	There has not been enough consultation with the indigenous community
<b>Response to chapter 5: Take for consumptive use</b>	
<b>Do you have any comments on this chapter or Schedule F?</b>	If it's set the same as the catastrophe that is unfolding in the darling river system I have no confidence in the plan at all including sharing
<b>Do you have any other comments on this chapter?</b>	It's all wrong, think of the future we can't eat cotton or corn
<b>Additional responses to Schedules</b>	
<b>Do you have any additional comments on the Schedules?</b>	No water sharing
<b>How did you hear about the Public Exhibition of this plan?</b>	
<b>Please let us know how you heard about the opportunity to make a submission?</b>	Department of Industry website Social media
<b>Additional Information</b>	
<b>I give permission for my submission to be publicly available on the Department of Industry website</b>	Yes







86 Market Street, [REDACTED]

*Office of the General Manager*

MS:A0170053

19 December 2018

Department of Industry  
Water in NSW

Dear Sir/Madam,

**SUBMISSION TO THE MACQUARIE CASTLEREAGH SURFACE WATER RESOURCE PLAN**

Council, at its meeting held on 12 December 2018, resolved to write a submission to the Water Resource Plan expressing Council's concerns with the changes to the carryover rules and a request to start consultation around bulk water transfers from Windamere Dam to Burrendong Dam.

Council do not support the changes to the carryover rules which affect both the Cudgegong and Macquarie irrigators. It is the view that these changes are all designed to the benefit of the Macquarie River users and it has a detrimental effect to those living up stream of the Burrendong Dam, especially along the Cudgegong River.

We are also concerned that there is no reason that a Cudgegong River irrigator who has saved their water as carryover should lose that water just because Burrendong Dam downstream has spilled.

The second issue Council wishes to raise is the need to implement the lifting of the ceiling from 70 gigalitres to 110 gigalitres as the trigger for ceasing bulk water transfers from Windamere Dam to Burrendong Dam. The environmental flows ceiling ceases at 110 gigalitres and we wish the bulk water transfer to match the environmental flows, so both levels are the same.

Should you have any queries in relation to this matter please contact me on [REDACTED] or [REDACTED]

Yours faithfully

A handwritten signature in black ink, appearing to be "Brad Cam".

**BRAD CAM  
GENERAL MANAGER**

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## Submission

1 message

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**David Harris** [REDACTED] >  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Wed, Jan 30, 2019 at 6:35 PM

My name is David Harris, I live in Dubbo and I love our river.

I spend many hours every week trying to improve the river for the future, it is a tremendous resource that is being let down on many fronts.

I have attended 2 meetings in Mudgee to listen to people talking about the WRP, I have researched and listened to others who know more than I do about it.

I am not happy about a number of things, including;

Environmental water won't be available below 110 GL dam level. Incorrect data was used to come up with this figure, it should be 70 GL.

There has been a change of wording in the plan regarding extraction limits, the word "will" has been changed to "may", this removes transparency from the plan, it's a bit wishy washy. And what is the difference between "full" and "full as possible" These changes were difficult to find, all changes should have been highlighted and a good reason for the change given. I feel like the changes were being snuck through, I am losing trust.

Environmental water purchased by taxpaying Australians should be protected from extraction during its passage down the river. It should definitely not be sold for irrigation, that is so wrong.

There should be a base flow, Water NSW should be required to let some water flow down the river. It is a river not a pipeline, there are fish, trees, animals not to mention communities that rely on it.

EWAGS are a great thing and should be mandatory on all rivers, there is a variety of stakeholders on these groups which keep them honest.

Floodplain harvesting volumes are still being calculated, if they are to be part of this plan then it is being signed off too early, let's get it right.

Thanks

David Harris



Virus-free. [www.avg.com](http://www.avg.com)



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## submission Macquarie Castlereagh water resources Plan

1 message

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**Rob Binks** [REDACTED] >  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Sun, Jan 27, 2019 at 11:02 AM

Dear Sir/Madam

I do not support that water allocation decisions are made using out of date statistics. Water modelling and decision making must be based on the most recent drought on record.

I support the proposed Cudgegong Environmental Water Allowance from Windamere Dam. This water must be retained as environmental water once it enters Burrendong Dam and it must be managed through 100% active use with no restrictions during irrigation season.

The cumulative environmental impacts of floodplain harvesting must be assessed and the volume of harvesting in the Macquarie must be calculated.

I strongly object to floodplain harvesting licences getting up to 500% carryover.

The Macquarie River should have an end of system target flow as the Cudgegong River now has. This is very important for native fish and other marine populations.

The water sharing plan needs to be improved to protect the Macquarie Marshes and other environmental assets which are under high risk of not receiving enough environmental water.

Gauges and meters to measure water use must be installed as a high priority of the WRP.

Yours sincerely

Robbin Binks

[REDACTED]  
[REDACTED]  
[REDACTED]

(individual)

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## Murray Darling Basin Plan

1 message

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**Kathy Furney** <[REDACTED]>  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Thu, Jan 31, 2019 at 12:09 PM

I wish to lodge my submission in relation to this proposal. There needs to be much more consideration of the few points I have listed below with the bottom line being that we need to give as much support to saving our rivers and fish as we do to pandering to large irrigators who suck the life out of our rivers.

1. There should be clear rules to protect environmental water from extraction.
2. Water licences should not be granted up to a 500% carryover.
3. The Cudgegong River has an end of system target flow, why doesn't the Macquarie River have an end of system flow to help maintain connection with the Barwon Darling.
4. It has already been demonstrated that world famous Macquarie Marshes and other environmental assets are under severe risk of not receiving enough environmental water. The Water Share Plan Needs To Be Improved.

These are just a few points that need consideration, we are the driest continent on the earth, Why Are We Indiscriminately Giving Away Water to Big Irrigators?? So many inquiries have shown the total disregard for law that these irrigators have, Stop Supporting Them.

Kathy Furney  
[REDACTED]



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**Fwd: Submission to the Draft Macquarie Castlereagh Water Resource Plan**

1 message

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**Tracy Sorensen** [REDACTED] >  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Thu, Jan 31, 2019 at 12:22 PM

Dear Planners,

Please take the following statement as my submission on the Draft Plan:

Allowing high security licences from the regulated section below Burrendong to be traded to unregulated creeks or rivers up stream (the Access Dealing Rule) is likely to have negative impacts on the upper catchment. For this reason, I strongly object.

Yours faithfully,

Tracy Sorensen  
[REDACTED]

## Submission to the draft Macquarie-Castlereagh Surface Water Resource Plan

Name: Bronwyn Powell

Address: [REDACTED]

Phone: [REDACTED]

Submitted by email to: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

I am a resident of Dubbo and spend a lot of time on the Macquarie and Cudgegong Rivers. I kayak on these rivers, swim, camp, and run and ride along the river in Dubbo. The health of the Macquarie and Cudgegong rivers is therefore important to me for these reasons, plus the fact that our rivers are the lifeblood of our regional communities – for drinking water, industry, recreation, and contributing in a fundamental way to the ecosystem that we live in and depend on for our physical and mental health.

I welcome the opportunity to express some concerns I have re the management of this river system. I would like to address the following components of the WRP (in the draft Water Sharing Plan for Macquarie-Cudgegong Regulated Rivers Water Source and draft Water Sharing Plan for Macquarie-Bogan Unregulated Rivers Water Source):

### 1. Floodplain Harvesting (FPH):

- a) Floodplain harvesting figures and terms of use are not provided in the plan, and having the plan open for public comment without these figures – essentially a blank cheque - makes a mockery of the public consultation process and is unacceptable.
- b) I am opposed to the 300% - 500% carryover allowance that is proposed for FPH licences once they are issued. While it may seem that there is plenty of water in the river system during a flood, floods are often the only time that rivers can connect at levels high enough for the migration of some fish, and for water levels to remain high enough for long enough for bird breeding events to be successfully completed in the Macquarie Marshes. Every bit of water is needed for these events to occur. Allowing FPH licenses massive amounts of water is simply reducing the effectiveness of water for the environment.

### 2. Extraction Management Units (EMUs):

EMUs should be kept in the WRP to protect local fish populations and other environmental needs. Removing EMUs to allow trading of water into different sections of river and water sources would have a negative impact on the environment. EMUs exist for a reason – to allow particular water sources to be environmentally sustainable.

### 3. Long term average annual extraction limit:

- a) It is unacceptable that the method of how the long-term average extraction limit will be calculated is not included in the draft plan. Again, this is not a transparent process.
- b) In the instance of non-compliance with the long-term average annual extraction limit or the cumulative annual extraction limit, the draft Water Sharing Plan for Macquarie-Cudgegong Regulated Rivers Water Source has removed the clause that any subsequent reductions in water allocations in the following water year “shall not be applied to the

environmental water allowance in the Macquarie River”. Environmental water should be protected from any such reductions – given that the purpose of any such reductions is to support the long-term sustainability of the environment.

- c) In the draft Water Sharing Plan for Macquarie-Bogan Unregulated Rivers Water Source, it states that in the instance of non-compliance with the long-term average annual extraction limit, the minister “may” make reductions in available water determinations for the following water year. This is a weakening of the current plan which states that following non-compliance, available water determinations in the following year “are to be reduced”. The amount of water in the river is already in dire circumstances, and any weakening of upholding the long-term average annual extraction limits is not acceptable.

#### **4. Environmental Water Allowance (EWA) in the Cudgegong River:**

I support the conversion of translucent flow into an environmental water allowance (EWA) in the Cudgegong River, but I have concerns about the following:

- a) Having a minimum dam capacity limit for when water for the environment can be released from Windamere Dam. This limit in the draft WRP is 110 GL dam capacity - the EWA should be able to be released below this limit. Water for the environment should be treated equally to all other General Security allocations in terms of when it can be released.
- b) When environmental water is released from Windermere Dam and ends up in Burrendong Dam, it should be *added* to the existing environmental accounts in Burrendong Dam - not become part of the general pool of water available in the dam. Environmental water should be protected right through the Macquarie system to serve its purpose – support native fish populations and river health. It is unjust that water for the environment – which the public has paid for – is essentially lost not even half way through the river system.
- c) The amount of water in the new EWA should be the equivalent of the current translucent account, i.e. around 14,000 ML. The proposed volume of only 12,300 ML is unfairly reducing the share of water for the environment.

#### **5. Predicted dam inflow modelling:**

Burrendong Dam is likely to run out of water in the next few months, and the deadspace in the dam will need to be pumped to keep town water supplies going, and the river shut down in stages if we don’t get significant rain soon. This will have a massive impact on communities, local economies, and fish populations that have slowly been building up over years of hard work from fishing groups and environmental agencies. We have already seen massive fish kills, and towns run out of water. The situation should not have got this bad - WaterNSW needs to keep more water in the dam to prevent such circumstances arising again, and it must be included in the WRP that dam inflow predictions be based on figures from all past years up to the present - NOT exclude figures post 2004 which contain the millennial drought.

#### **6. Include end of system targets for connectivity of the Macquarie River with the Barwon River:**

The WRP should have targets for this connectivity, to provide more water for the Barwon-Darling, allow more opportunities for fish to move from the Barwon-Darling into the Macquarie, improve the health of the river in the lower Macquarie, and support towns that rely on drinking water from the lower Macquarie. Incidents such as the recent fish kills at Menindee Lakes could also be prevented by allowing more water into the Barwon-Darling.



**7. Water quality allowance:**

The WRP should include an allowance of water to be used for when water quality is low. This would help situations like the current fish kills we are seeing, plus support those who use the river for domestic needs and recreation.

**8. Environmental Water Advisory Groups (EWAGs):**

EWAGS should be mandatory in all regulated rivers. Water is a public asset and representatives of water users in the community should get a say in the management of water.

Regards,

Bronwyn Powell

Date: 31-1-2019

To: [Macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:Macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

31<sup>st</sup> January 2019

I strongly object to the ministers' proposal to allow conversion of regulated river entitlements from downstream regulated river water sources to access licences in upstream unregulated water sources.

Our unregulated river sections are already carrying enough allocations and are stretched to cope with existing water allocations.

We have experienced fish deaths and diseased fish during the past winter in the unregulated sections of the Macquarie and Turon Rivers above Burrendong dam which were reported to NSW DPI and widely shared on social media by recreational anglers. Further water extraction in the unregulated sections of these rivers will only cause cumulative impacts on native fish populations

As secretary of the Sofala Branch of the Central Acclimatisation Society, I also include the objections of the entire 52 members of our branch who have on a voluntary basis been working for the past 10 years to recover native fish populations in the Turon River, raising money by holding an annual carp blitz which attracts around 300 recreational anglers each year to restock the River with native fish.

Our unregulated rivers need protection and environmental water allocation. There is a clear need for protection of flows to the end of systems for important connectivity of flows vital for survival of native fish species to prevent fragmentation of populations.

It is extremely difficult to comment on all aspects of the water sharing plan without the expertise to be able to decipher the different clauses, parts & sections contained. I doubt even the minister would have a clear understanding of the entire document.

Local people know their own areas and when all the peoples knowledge is brought together a lot of accumulated local knowledge can generate a picture of the needs of different communities along the length of a river which should form the framework of how the rivers are best managed.

Regards

Colin Gordon,

Secretary, Sofala Branch of the Central Acclimatisation Society

[REDACTED]

[REDACTED]

[REDACTED] 8

## Submission to the Macquarie - Castlereagh Water Resource Plan

1 message

Sally Forsstrom >  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Thu, Jan 31, 2019 at 11:32 PM

Today the South Australian Government released the Murray-Darling Royal Commission Report daed 29 January 2019 from Commissioner Bret Walker SC

I am one of the residents in the Macquarie Valley deeply concerned about the management of water in the Murray Darling Basin., having witnessed three fish kills at Menindee and at least one black water fish kill in the Macquarie above the Mookerawa Boat ramp.

Therefore I am making a brief submission about the development of the WRP as a requirement of the Murray Darling Basin Plan.

I attended a consultation in Dubbo about the WRP. At that meeting concerns were noted about the trading of water in the basin as a commodity not for the benefit of the public resource of the river but for the benefit of traders in water.

On my brief scanning of the Commissioner's report, there is concern that the Murray Darling Basin Authority has managed water for social and economic benefit, not for the benefit of the environment, in contravention of the Water Act 2007 (Cwlth)

In view of alarm about the current management of our most precious natural resource by the MDBA I am hoping the WRP will be reviewed with a renewed focus on the environmental needs of the Macquarie - Castlereagh Rivers. The Macquarie Marshes are one of the largest semi-permnet wetland systems in eastern Australia, providing habitat for 72 species of waterbird, including 43 species that breed in the Marshes. The marshes are important to the Endangered Australasian Bittern. The over -extraction of water and land use for agriculture exacerbated by climate change, has greatly reduced the extensive reed beds and sedge lands required and the bird numbers are in decline.. Secure environmental water s critical to the conservation of bird habitat. BirdLife Australia called on the Australian Government to reject the MDBA recommendation to reduce the amount of environmental water in the Northern Basin. Therefore I ask that you ensure that the environment has a fair share of the water in the Macquarie Valley.

### KEY POINTS

1. I do not support decisions on water allocations being made using the worst drought before 2004. This is a high risk approach to water management under climate change scenarios.  
  
Water modelling and decision-making must be based on the most recent drought of record. Like many people in the MDB I have lost faith in the modelling process as it is not using the worst case scenarios as we experience the increasing droughts of climate change
2. I support the proposed Cudgegong Environmental Water Allowance from Windamere Dam. This water must be retained as environmental water once it enters Burrendong Dam.
3. The Environmental Water Advisory Group, made up of community and government representatives, must be a mandatory requirement in the water sharing plan.
4. There must be clear rules to protect environmental water from extraction. It is unacceptable that the water sharing plan was placed on exhibition for public comment without the finalisation of rules to protect environmental water.
5. The free capture of floodwater for irrigation use is a key issue in the Macquarie Valley. The cumulative environmental impacts of floodplain harvesting must be assessed. It is critical that the volume of floodplain harvesting in the Macquarie is calculated. This water sharing plan should not be on exhibition for comment with this information missing. The Royal Commission commented on the lack of transparency of data upon which decisions about environmental water were based.
6. I strongly object to floodplain harvesting licences getting up to 500% carryover.
7. Object to floodplain harvesting available water determination of 2ML per unit share, which is an extra bonus handout to industry at the expense of the environment.
8. Object to the wording change in clause 35 of the unregulated wsp which changes (to paraphrase) "if there is non compliance with the long term average annual extraction limit one year, the minister *will* reduce allocation next year" changes to "if there is non compliance with the long term average annual extraction limit one year, the minister *may* reduce allocation next year" It appears to me that the extraction of water for commercial use will have more importance than the environmental water.
9. Access Licence Dealing Rule Part 10 access licence dealing rule (Minster's Note). I object very strongly to the conversion of any regulated entitlements, high security or general security from downstream water sources to connected upstream unregulated water sources under any circumstances.

10. The Cudgegong River is managed with an end of system target flow. The Macquarie River should also have an end of system flow to help maintain connectivity with the Barwon River. This is very important for native fish populations. End of system target in regulated Macquarie will:
  - Help make environmental watering more efficient as the Marshes and river bed in the Lower Macquarie will be less parched and absorbent
  - Improve landholder rights to water, which are being eroded at the moment due to release efficiencies from Burrendong
  - Connectivity with the Barwon would be easier to achieve.
11. The WRP risk assessment demonstrates that the internationally significant Macquarie Marshes and other environmental assets are under high risk of not receiving enough environmental water. The water sharing plan needs to be improved. The government needs to compensate licence holders if water needs to be reallocated in order to protect important environmental assets.
12. Planned environmental water in the Castlereagh River has been reduced. Gauges and meters to measure water use must be installed in the Castlereagh as a high priority of the WRP. The public expects water extraction to be metered.

Thank you for considering my submission as a resident of the Macquarie Valley.

Sally Anne Forsstrom | [REDACTED]

Submission to the draft Macquarie Castlereagh Water Resource Plan

Name: Anne McAlpine

Address: [REDACTED]

Phone: [REDACTED]

To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

My name is Anne McAlpine, I am a resident of [REDACTED] and I spend a lot of time on the Macquarie/Cudgegong Rivers.

The health and resilience of our rivers and the way they are managed in the Murray Darling Basin is very important to me and my family because

1.....Our rivers are the lifeblood of our communities.....

2.....As a member of the Dubbo Field Naturalist and Conservation Society I know that a lot of our activities evolve around the river to view/monitor the wildlife including water & land birds, Water Rats & Platypus.

3 The river and environs are very much part of our walks.

A healthy environment including our waterways , means a healthy people

4.Groups in Dubbo spend a LOT of time supporting the river and trying to keep it clean for fishing & boating .

...5. Vegetation is replaced and weeds removed.....to maintain a healthy river system.....

Please accept my submission to the draft Water Resource Plan (WRP) as a concerned resident of the Macquarie Valley.

1. Converting the translucent flow releases with an environmental water allowance for the Cudgegong River

I support the conversion of translucent flow into an environmental water allowance (EWA), but I have concerns about the following:

- I think environmental water should be able to be released from Windermere dam below 110 GL dam level, otherwise there won't be many opportunities to release environmental water down the Cudgegong to help native fish breed.
- When environmental water is released from Windermere dam and ends up in Burrendong dam, it should be added to the existing environmental accounts in Burrendong dam. Environmental water should be protected right through the Macquarie system to benefit native fish populations and river health.
- The amount of water in the new EWA should be the equivalent of the current translucent account, that as around 14,000 ML. It isn't right that the volume is only 12,300 ML.

## 2. Floodplain Harvesting (FPH)

The volumes of water that can be collected from rainfall and flood events from the Macquarie Valley is still being calculated, and it isn't clear how these volumes (expected to be large) will fit into this Water Resource Plan and how water will be shared. Signing this plan off before the volumes of FPH are known isn't a very transparent process.

I am concerned about the 300% - 500% carryover allowance that is proposed for FPH licences once they are issued. If floods get further apart, it's possible that the amount of water that can be kept out of the river will be up to 3 to 5 times the volume of the floodplain harvesting licences. This seems very unfair to the river, as the rivers' carryover allowance won't be going up as well, the river will have to make do with what is left.

3. Environmental Water Advisory Groups (EWAGs) work very well, bringing together traditional owners, scientists, community representatives, farmers and graziers who work together and advise the government how to manage environmental water in their patch. Over time, these groups accumulate a lot of local knowledge about their patch of river, and how their river connects to the rest of the basin. EWAGs should be mandatory in every regulated river stretch.

### **Additional Points that should be in the Water Sharing Plan**

1. When water is purchased by the tax payer for the rivers, it should stay in the rivers until it reaches its natural destination, and must be legally protected from pumping. Ownership of a private asset is not allowed to be degraded, and nor should a public asset like water for the river and fish. Once public water is paid for by tax payers, it should remain in the rivers to take its natural course.

2. WaterNSW needs to keep more water available in the dam for times when the water sharing plans are suspended (like in extreme drought), to make sure there is enough water available to send down the river to keep fish alive. The rules should say it is necessary to include dam inflows figures from the current drought (the worst on record) when working out how much water in the dam is available for sharing, rather than exclude the figures from drought (as is currently the case). The community expects a bigger buffer in the dam for when times are dry.

3. There needs to be an end of system target flow in the regulated Macquarie, otherwise there's no requirement for WaterNSW to send water out of the dam when paying customer orders slow down or stop. Not having an end of system target puts our native fish in the lower Macquarie at great risk of kills, as we have recently seen.

4. The Macquarie River is an important water source for the Barwon and Darling rivers, especially in late winter and early spring when other Northern Basin Rivers aren't being fed by monsoonal falls. Achieving connection to the Barwon must be a rule within the Water Sharing Plan. The environmental flow from the Macquarie in the second half of 2018 managed to get water down to the Brewarrina weir pool, this water may have saved Brewarrina from running out of water like Walgett did.

Regards,

\_\_\_\_Anne McAlpine\_\_\_\_\_

Date:



I N L A N D  
R I V E R S  
N E T W O R K

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██████████ PYRMONT NSW 2009  
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email ██████████  
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ABN 34 373 750 383

Department of Industry – Water  
GPO Box 5477  
Sydney NSW 2001  
[macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

Friday 1 February 2019

### **Comments on Draft Macquarie-Castlereagh Surface Water Resource Plan**

The Inland Rivers Network (“IRN”) is a coalition of environment groups and individuals that has been advocating for healthy rivers, wetlands and groundwater in the Murray-Darling Basin since 1991.

IRN welcomes the opportunity to provide comments on the Draft Macquarie-Castlereagh Surface Water Resource Plan (draft WRP).

#### **Background**

IRN submitted substantial comments to the Status and Issues Paper on the Macquarie-Castlereagh Surface Water Source released in late 2016.

We outlined concerns that the significance of the Ramsar listed Macquarie Marshes as a major water bird breeding site in Australia had not been clearly recognised.

The draft WRP fails to recognise the obligations of the NSW and Commonwealth Governments under international treaties to provide adequate water for Ramsar listed wetlands and migratory water bird breeding events.

We raised the issue of significant risks to key environmental assets and ecological function.

These include medium to high risk of damage to ecological values due to insufficient water in the regulated system and possibly the unregulated system, medium to high risk under climate change scenarios for Macquarie Marshes and Wilgara Wetlands and high risks to ecological values from salinity in the lower sections of the Bogan, Castlereagh and Macquarie Rivers.

The draft WRP does not mitigate these key risks.



We also noted that the objectives and strategies for the WRP will not achieve the necessary outcomes required by the Basin Plan.

The management of floodplain harvesting is a key issue. We note that the first Macquarie-Cudgegong Regulated Water Sharing Plan had no inclusion of floodplain harvesting extraction. We note that the replacement plan included in the draft WRP also provides no volumes of the extraction of flood flows from the Macquarie floodplain.

This is an important issue due to the impact on significant ecological values in the WRP area. 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.

Rules to protect held environmental water through the unregulated section of the Macquarie River have also not been included in the replacement water sharing plans.

This is a critical issue for the implementation of the Basin Plan and a key component of the Northern Basin toolkit measures.

The lack of information on both floodplain harvesting and protection for environmental water is unacceptable because without this information the draft WRP is incomplete. It should not have been released for public comment without all the necessary details provided.

IRN considers that failing to provide this critical information until 1 April 2019 is highly inappropriate and does not demonstrate a fair and transparent consultation process.

It is imperative that an Environmental Watering Advisory Group (EWAG) is included as a mandatory requirement in the draft WRP and that its membership is clear. The Environmental Flows Reference Group as mandated in the current Macquarie-Cudgegong Regulated Water Sharing Plan has been a highly successful means of providing advice on the planning of environmental flow releases for planned and held environmental water in the system.

The EWAG has successfully delivered an important trust building community function by providing local knowledge working together with key government agencies including Fisheries, OEH as Ramsar managers and environmental water holders, CEWO, DoI Water and Water NSW.

Finally, we do not support current arrangements under the NSW Water Management Act (2014 Amendment) whereby available water determinations are based on the worst period of low inflows into the water source, as identified in flow information held by the Department before 1 July 2004.

The lack of modelling inputs using the Millennium Drought and subsequent worst drought of record inflows has resulted in over allocation of available water and has increased the risk of poor management of extreme events, as is being experienced in the draft WRP area at this point in time.

This has an impact on the management of risk which is identified as high for many of the criteria, especially for environmental water requirements.

## **Proposed Rule Changes:**

### 1. Cudgegong Environmental Water Allowance (EWA)

IRN supports that the conversion of Cudgegong translucent releases to an EWA.

We would appreciate an explanation about how any changes to modelling in regard to floodplain harvesting have an impact on the final conversion volume from 10,000 ML per annum translucent flows in the Cudgegong, given there is no floodplain harvesting in this section of the water resource area.

It is imperative that the formation of an EWAG sub group for the Cudgegong is recognised in rules associated with the continuation of EWAG functions in this regulated system.

IRN also strongly supports that the Cudgegong EWA is protected as an environmental allocation once it arrives in Burrendong Dam.

### 2. Cudgegong 'residual' environmental water account

IRN is concerned that the rules in the current WSP were not met in regard to the release of translucent flows. This has caused a residual volume of approximately 11,283 ML that has not been provided to the environment of the Cudgegong River for the past 7 years.

We note that Windamere Dam storage levels were much higher in the 2010 – 2012 period than now. The issue of managing water quality in dam releases becomes more complex once the storage is at lower levels. The proposal to use this outstanding balance until Windamere Dam is at 70 GL storage level must take into account the implications of poor water quality releases into the Cudgegong River that will not provide an environmental benefit.

### 3. Review of environmental flow rules for Macquarie EWA

IRN supports that the EWA be managed as 100% active release. This approach was adopted during the water sharing plan suspension in the millennium drought to great effect.

This rule provides greater flexibility for adaptive management decision-making. This will enable the achievement of the best environmental outcomes in a complex and variable system.

The current restriction of translucent releases between November and March is a major limiting factor in delivering environmental outcomes in the Macquarie system. A rule change to 100% active release will enable beneficial use of environmental water releases when they are most needed.

### 4. Stock & Domestic Replenishment Flow to Macquarie River below Oxley

IRN supports this proposed formalisation of historic practice in a new rule in the regulated water sharing plan.

### 5. Review of volumetric trade limits

IRN does not support the increase of the volumetric trade limit in Bulgeraga Creek from 33GL to 45GL. This creek system is a major delivery route for environmental water releases to the Macquarie Marshes.

The channel capacity and sharing issue will be greatly exacerbated by this proposed rule change.

We consider the increased risk of channel capacity constraints during periods of peak demand is too great and will impact on the ability of held and planned environmental water to be delivered to the significant environmental assets in the Macquarie Marshes.

This proposed rule change is not a balanced decision and will impact on the achievement of the WSP environmental objectives and the objectives of the Basin Plan.

This proposed rule change will increase the risk of the Macquarie Marshes not receiving enough environmental water which has been identified as a high risk in the risk assessment.

#### 6. Draft rules for Floodplain Harvesting (FPH)

We note that nothing has yet been finalised about the inclusion of floodplain harvesting in the water sharing plans. It is unacceptable that this WRP has been placed on exhibition for public comment without this critical information.

There had been no inclusion of FPH extraction in the 2004 Macquarie-Cudgegong regulated water sharing plan or in the unregulated plan. Therefore, this water was included as Planned Environmental Water (PEW) in that plan.

We note that no share component has been identified and no volume has been provided to limit carryover of FPH. There should be no carry-over provisions for FPH.

Therefore Cl 43 (1) should state that ‘The Minister must not allow allocations in the water allocation account of a floodplain harvesting (regulated river) access licence to exceed 1 ML per unit share at any time.’

Cl 43 (4) should be removed. There should be no consideration of FPH over the first five years following the establishment of the licence. There should be no carry-over provisions for FPH.

We do not support cl 45 (2) that allows harvesting of rainfall runoff that has not been credited to the water allocation account of the licence. The proposal to debit this the following year bears no relationship to the availability of rainfall. Rainfall runoff was included as PEW in the original water sharing plan gazetted in 2004.

We do not support Cl 47A (1) in the Macquarie Bogan Unregulated Rivers water sharing plan that allows for a 2 ML per unit share to be available for FPH unregulated access licences on establishment.

The proposed rules for managing FPH are likely to continue to cause increased environmental degradation in the Macquarie system.

Further concerns about FPH are detailed below.

#### 7. Objectives, strategies and performance indicators

The proposed environmental objectives and performance indicators have no reference to targets for water bird breeding or enhancement of the Ramsar listed Macquarie Marshes.

The NSW Government, as Ramsar managers, and the Commonwealth Government have obligations under international treaties to protect and enhance areas identified as significant for migratory birds and other values.

These obligations must be reflected in the objectives and performance indicators of the water sharing plan.

#### 8. Compliance assessment advisory committees

IRN strongly objects to the role of compliance assessment being placed in the hands of Water NSW Customer Advisory Committees (CAGs). Both Water NSW and its customers have a major conflict of interest in the operation of water sharing plan rules.

Compliance assessment must be undertaken by a state-wide independent body such as the Natural Resources Access Regulator or the Natural Resources Commission.. This will improve the transparency and trust in the process.

#### **Other Key Issues:**

##### 1. Water availability determination

The regulated river water sharing plan must be changed so that the most recent drought of record (ie 2018) is included in modelling used to determine water availability. The current definition that worst drought be defined as the worst period of inflows prior to 2004 is a high risk approach to water management in the context of climate change. The rule should be:

CI 76 Maintenance of water supply

(3) **worst drought** must be the most recent drought of record or worst period of inflows on record.

##### 2. Floodplain Harvesting (FPH)

IRN has been advocating for a full cumulative environmental impact assessment of all FPH extraction on downstream water users and environmental assets. The small to medium size overland flows captured by this extraction method have important ecological functions such as recharging groundwater systems, providing natural flows to wetlands, providing connectivity flows to connected rivers and wetlands, in particular, the Barwon-Darling and returning nutrients and food sources to rivers.

We note that the Long-term average annual extraction limit (LTAAEL) has not yet been identified as a volume in the draft water sharing plans for the regulated Macquarie-Cudgegong and unregulated Macquarie-Bogan water sources.

We do not support that the volume of FPH access licences to be granted is added to existing levels of take. This volume must be obtained through a shared reduction of all other access licences.

This is to prevent a net reduction of PEW in the WRP area.

The modelling rationale being used ie to shift the newly assessed volume of FPH from system losses into extraction assumptions is deeply flawed. This method will cause a net reduction in PEW.

### 3. Protection of PEW (including Castlereagh)

Draft WRP Appendix C states at section 2.2 that the LTAAEL for the water sharing plans in the draft WRP area is not changed. Therefore, there is no net reduction in PEW.

However, the final volume of LTAAEL has not yet been set in the draft water sharing plans and is proposed to expand to account for the final assessed volume of FPH.

This will cause a change in the LTAAEL and will cause a net reduction in the protection of PEW.

Transmission losses are a volume of water that has not been extracted and have therefore had some environmental benefit and are included in the current volume of PEW in the water sharing plans.

If the final volume of FPH extraction is moved in the model assumptions from transmission losses to extraction, then this results in a net reduction in PEW.

The proposed changes to water sharing rules in the Castlereagh unregulated water sharing plan will also cause a reduction in PEW.

Table B showing flow classes in the current water sharing plan identifies low flow and A class flow heights to be protected from extraction. The management of these environmental rules relied on the installation of gauges at the end of 5 zones within the water source.

The NSW Government failed to protect PEW in the implementation of the current water sharing plan because it failed to install the necessary gauges needed to regulate cease-to-pump rules.

The proposal to adopt current operational practices rather than to protect environmental water as gazetted in the 2004 plan will cause a net reduction in the protection of PEW.

The draft WRP should be supporting the installation of the necessary gauges to protect low flows and A class flows over the full length of the Castlereagh River. This will protect PEW and insure that better connecting flows to the Barwon-Darling are achieved in periods of low flow.

### 4. Active sharing of water in unregulated water sources

IRN is concerned about the uncertainty on whether a clear set of rules for protecting held environmental water through unregulated water sources will be included in WRPs.

This is another body of work still under consideration and not available in the draft WRP for comment.

The issues identified in the associated fact sheet do not specify that held environmental licenced water will be protected by the proposed rules.

We note that a process of considering rule options was intended to be conducted in November 2018 with further consultation on preferred options to be conducted in 2019. IRN has not been contacted about this proposed consultation process.

It is imperative that held environmental water is protected throughout the length of the Murray-Darling system until it reaches its intended asset or fulfils a required ecological function.

The original concept of shepherding rules was fully supported by IRN. These must be included in all WRP for the Basin Plan to achieve its environmental objectives.

#### 5. Mandatory requirement for EWAG

CI 75 should include the mandatory requirement to establish an EWAG in the Macquarie-Castlereagh WRP area with a clear list of community and government agency representation. This should include a sub-group in the Cudgegong.

#### 6. Consideration of upstream trading

IRN strongly objects to the consideration under Part 10 of the draft regulated and unregulated water sharing plans to allow trades of regulated high security licences to upstream unregulated water sources. This is a high risk approach to water management and may have considerable impact on storage inflows and environmental shares.

#### 7. Risk Assessment

IRN does not support the conclusion of the risk assessment in the draft WRP that a very large number of high risks to meet environmental water requirements are tolerable.

The proposed water sharing rule changes will not improve the ongoing decline of the health of the significant assets in the Macquarie-Castlereagh system. It is not tolerable to have a high risk of meeting environmental watering requirements to the Ramsar listed Macquarie Marshes and the impact of climate change not being mitigated.

The strategies outlined in the risk assessment are inadequate and need to be strengthened.

#### 8. Water Quality

We note a considerable number of knowledge gaps in the risk assessment for poor water quality.

The proposed water sharing rules and risk management strategies in the draft WRP will not improve areas of poor water quality over time.

## 9. Consultation

IRN considers it highly inadequate to place this draft WRP on exhibition without finalising consultation with a number of indigenous nation groups that have country in the draft WRP area.

### **Conclusion**

Because of the incomplete information provided in the draft Macquarie-Castlereagh WRP it is very difficult to assess the full impact of the proposed rules and management of the water source.

The direction of the draft WRP provides no confidence that the significant environmental assets in the Macquarie system will benefit over time.

The objectives and performance indicators in the draft regulated water sharing plan are an inadequate measure of the value of the international significance of the Macquarie environmental assets.

The risk assessment has identified a high risk of inadequate water for the environment and a high risk of drier scenarios due to climate change.

IRN considers that the draft Macquarie-Castlereagh Surface WRP will not meet the objectives of the Basin Plan.

For more information please contact:

Anne Reeves  
Secretary  
Inland Rivers Network



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**Submission to the Draft Macquarie Castlereagh Water Resource Plan.**

1 message

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**Jenny Lavelle** <[REDACTED]>  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Fri, Feb 1, 2019 at 10:07 AM

Dear Sir/Madam,

I have concerns and hereby make the following submission to be included in the draft for the Macquarie Castlereagh Water Resource Plan:

"Allowing high security licences from the regulated section below Burrendong to be traded to unregulated creeks or rivers upstream (the Access Dealing Rule) is likely to have negative impacts on the upper catchment. For this reason, I strongly object."

With thanks in anticipation,

Yours faithfully

JENNY LAVELLE  
[REDACTED]





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## Submission to the Draft Macquarie Castlereah Water Resource Plan

1 message

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**Vianne Tourle** <[REDACTED]>  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

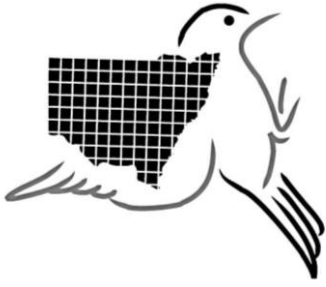
Fri, Feb 1, 2019 at 11:59 AM

Allowing high security licences from the regulated section below Burrendong Dam to be traded to unregulated creeks or rivers up stream (the Access Dealing Rule) is likely to have negative impacts on the upper catchment. For this reason, I strongly object.

The River system's sustainability needs to be given priority.  
It is not an infinite resource.

The high demands for water from mining and cotton growing are not supported.

Vianne Tourle  
[REDACTED]



**NSW Bird** Atlassers Inc

*A group monitoring birds in New South Wales*

Postal Address: [REDACTED]

Website: [www.nswbirdatlassers.com](http://www.nswbirdatlassers.com)

Macquarie-Castlereagh Water Resource Plan (WRP)  
Department of Primary Industries  
NSW Government  
Macquarie Street  
SYDNEY NSW 2000  
31 January 2019

By email to: [macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

Dear Sir / Madam

Thank you the opportunity to comment on the Macquarie-Castlereagh Water Resource Plan (WRP).

I am writing to you on behalf of New South Wales Bird Atlassers, a dedicated group of ornithologists and experienced bird observers. Monthly record sheets of birds observed by various members throughout NSW and ACT and from half-yearly camps are sent in to the group's data base to form an Atlas of the state of our native birds, declining, increasing, changing etc. since 1970. The group has recently published Volumes 1 and 2 of An Atlas of Birds of NSW and ACT, and Volume 3 is nearing publication.

The protection and conservation of our native water birds relies heavily on sharing of water resources. Water birds are an indicator of the health of the ecosystems that make up the floodplains and wetlands of rivers and so their conservation is vital. We believe that decisions on water allocations must use the most recent droughts to obtain best water modelling in making decisions for the WRP and

- we make this our **recommendation**.

It is essential that the proposed Cudgegong Environmental Water Allowance is retained as environmental water once it enters Burrendong Dam. The water sharing plan has been placed on public exhibition without making clear rules that protect environmental water from extraction which needs to be rectified before finalisation of the Plan. We **recommend**

- its inclusion in the Plan.

Of further concern to the group is the free capture of floodwater for irrigation. This contentious issue needs to be removed from all WRPs as there are no calculations made of the extent of harvesting, and the complex ecosystems of floodplains are being deprived of this water which is essential to maintaining a healthy river. Floodplains of major rivers in Europe and United States are being restored in order to improve the health of those rivers devastated by cumulative environmental impacts from their removal. We **recommend**

- cancellation of floodplain harvesting be included in the Plan.

It is concerning that the WRP risk assessment fears the significant Macquarie Marshes and other environmental assets are not receiving sufficient water 1) to even meet our obligations as a Ramsar listed site and 2) maintain the health of the other assets. We **recommend**

- improvement to WRP watersharing that makes additional environmental water to Macquarie Marshes a highest priority and
- ensures no reduction to planned environmental water in the Castlereagh River.

We believe and trust our recommendations will be of assistance to you in finalisation of the Macquarie-Castlereagh Water Resource Plan. The writer has been a long-term resident of Warren and now of Orange and understands the importance of this Plan.

Yours sincerely

Jane Paul  
Conservation Office NSW Bird Atlassers

████████████████████  
████████████████████

Sarah Moles

1<sup>st</sup> February 2019

By email to

[macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

Thank you for the opportunity to comment on the Draft Macquarie Castlereagh Water Resource Plan.

### **Floodplain Harvesting Policy Concerns**

The NSW Floodplain Harvesting Policy (FHP) and its implementation are of extreme importance to landholders who derive their income from floodplain properties, for indigenous people with responsibilities to care for country – including rivers, for tourism operators and fishing enthusiasts and for the conservation sector.

The removal of any water from the floodplain has negative impacts downstream.

My understanding is that the FHP was developed in isolation from the DMCWRP (but in parallel with it) and that the new policy has effectively been parachuted into the latter, despite it having incomplete information. I further understand that irrigators were surveyed regarding their extraction of floodplain flows and that this forms the basis of new licences to be issued under this Plan. This total absence of data and science is unacceptable and must not be legitimised.

I do not support the proposed carryover conditions. In a valley subject to infrequent flooding the draft plan would make it possible for entire floods to be removed from the river system. The consequences for downstream communities and landholders will be too dire to be permitted.

The relationship between the FPH policy implementation and its impact on Planned Environmental Water (PEW) is inadequately explained. Assurances must be given that PEW will not decrease in volume over time as a result of the FPH policy implementation. The Basin Plan and WRPs are about equity, sustainability and the health of rivers for all communities – not just the irrigation community.

### **The Importance of Connectivity**

The AFA has concerns about how floodplain harvesting is being calculated Basin-wide, how this has been accounted for in the calculations of sustainable diversion limits and how take of this magnitude can be contemplated in the Macquarie (a) where Ramsar obligations could and should be substantially improved and (b) the ultimate impact on the Barwon Darling and Lower Darling/Murray planning areas is unknown while ever plans are reviewed and considered separately. Both the NSW DOI Water and the MDBA must ensure each Northern Basin WRP informs downstream WRPs so that *real connectivity* occurs through the whole system and end of system flow targets are met.

Connectivity with the Barwon-Darling system must be added to the list of ecological outcomes.

The current parlous state of the Darling River system is due to 30 years of cumulative negligence by governments. Failure to act on connectivity and address end of system targets is part of the

cumulative negligence. The current review of WRPs offers government an opportunity to correct this past deficiency.

### **Community Owned Water**

Environmental water is community owned.

Community owned water provides significant socio-economic, spiritual and cultural benefits to Basin communities through flow-on effects from improved health of the natural environment.

The community increasingly expects measurable achievements from the use of its water . Connectivity with regulated flows and the resultant contribution to environmental, social, cultural and economic outcomes needs to be hardwired into all new generation Northern Basin WRPs.

### **Recognition of Advice from the Environmental Water Manager and Statutory recognition Of the Macquarie EWAG.**

Advice from a stakeholder community based Environmental Water Advisory Group (EWAG) has and must continue to provide local informed advice on water management in the Macquarie Valley. I welcome the statement that the EWAG is legally established in the WSP, as part of the DMCWRP (p48). This is critical to good outcomes in WRPs. The EWAG structure and operational rules must continue to be legally validated in the DMCWRP. A statutory rule is required to ensure Aboriginal participation. Other relevant stakeholder groups should also be specifically identified for the EWAG. Decision making in relation to management of community owned water should rest with the NSW Environmental Water Manager and not Water NSW or DOI Water.

### **Integration of Long Term Watering Plans and Water Resource Plans**

There are no long-term watering plans for NSW currently approved (even though they should have been delivered by 2015). The Macquarie Castlereagh LTWP is currently on exhibition with the Macquarie Castlereagh WRP, the former required to inform the latter.

It is not clear how section 10.17 below will be complied with in relation to the development of appropriate rules in water resource plans. The Draft Macquarie Castlereagh WRP cannot credibly be informed by the Macquarie Castlereagh LTWP if the LTWP has not been properly considered by the Macquarie Castlereagh Stakeholder Advisory Panel prior to the drafting of the MCWRP.

#### ***10.17 Priority environmental assets and priority ecosystem functions***

*(1) A water resource plan must be prepared having regard to whether it is necessary for it to include rules which ensure that the operation of the plan does not compromise the meeting of environmental watering requirements of priority environmental assets and priority ecosystem functions.*

*Note: The environmental watering requirements of priority environmental assets and priority ecosystem functions will be set out in long-term watering plans and may also be set out in the Basin-wide environmental watering strategy. Long-term watering plans are required to use the methods in Part 5 of Chapter 8 to identify those requirements.*

*(2) Without limiting subsection (1), regard must be had to whether it is necessary for the rules to prescribe:*

*(a) the times, places and rates at which water is permitted to be taken from a surface water SDL resource unit; and*

*(b) how water resources in the water resource plan area must be managed and used.*

*(3) If the outcome of the requirement in subsection (1) is that such rules are necessary, the water resource plan must include those rules.*

### **Dam operation during floods and spills.**

I do not support the change from 'leave storage at full supply level at the completion of the flood event' to now "leave the storage as full as possible after the flood or spilling of water"

This change is a way of the NSW government holding water back which is not acceptable. The matter has not been discussed by the MC SAP and must not be included in the new plan without referral to the SAP.

Yours sincerely,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the bottom, positioned below the text "Yours sincerely,".

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## Submission from John Ryan

1 message

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John Ryan [REDACTED] >  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Sat, Feb 2, 2019 at 6:30 AM

To whom it may concern,

Our rivers are a mess.

Our rivers are a mess.

Our rivers are a mess.

Our floodplains are a mess.

Our floodplains are essentially disconnected from our rivers.

And this entire mess is fundamentally man-made, notwithstanding the current drought conditions which have obviously exacerbated the situation.

I'm a journalist and a Landcarer who has specialised in Natural Resource management issues for about 25 years and everything I've seen, all the people I've talked to from prime ministers down to people littering near our waterways, has convinced me almost all our public policy settings in this this area are wrong.

The people with the most passion, the most integrity are the very ones with the least power to make decisions, and these are invariably the volunteers and those funded very part-time for community organisations yet who spend 50 hours a week trying to preserve at least a remnant of our ecosystems.

Water, like air, is life, yet we as a society have commodified it to make the financial gain of a few far more worthy than that of the benefits to the many.

Some families have benefited to the tune of tens of millions of dollars each and they're hailed as "success" stories, as we judge success on monetary wealth, yet our river systems are dying.

The South Australian Royal Commission has shown the corruption, cronyism and base incompetence at the highest levels, so not only do we need to start again with honest people designing a whole-of-basin plan, but we need to ensure that we don't use the current rubbery figures to decide to take any more environmental water out of the system.

Water NSW is an organisation founded on supply to agriculture, yet that as a priority should be far down the list behind human and environmental health.

Let's hold fire and start again, and this time we must have grassroots people of integrity on an oversight committee to hold all the professional bureaucrats and politicals to account.

Let your culture change to "Do no more harm".

Regards,  
John Ryan

[REDACTED]

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Department of Industry – Water  
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Friday 1 February 2019

**Submission to Draft Macquarie-Castlereagh Surface Water Resource Plan**

Central West Environment Council (CWEC) is an umbrella organization representing conservation groups and individuals in central west NSW working to protect the local environment for future generations.

We thank you for the opportunity to submit comments on the draft Water Resource Plan (WRP) for the Macquarie-Castlereagh surface water resource, as required under the Murray-Darling Basin Plan.

This WRP area contains a range of important environmental assets including the internationally significant Macquarie Marshes.

CWEC is greatly concerned that the health and resilience of the Macquarie Marshes has continued to decline over time and that the water sharing arrangements under current water sharing plans (WSP) have not improved the health of this significant wetland of the Murray-Darling Basin.

CWEC members are particularly concerned about the decline in area of healthy marsh ecosystems and the decline in water bird breeding events. We consider that this has been caused by the over extraction of water for irrigation purposes.

We are concerned that the risk assessment in the draft WRP identifies a high risk of meeting environmental watering requirements of the Macquarie Marshes and the impact of climate change will not be mitigated.

The proposed changes to water sharing arrangements included in the draft WRP will not prevent further decline of essential ecological assets and function in the Macquarie River system.

We note that the recent catastrophic fish kills in the Darling River have been caused by a reduction in flow from connected river systems over time. The Macquarie-Castlereagh surface water flows are highly connected to the Barwon-Darling River system.

Also, the over-extraction of natural flows through supplementary license access and the unregulated harvesting of overland flood flows plus the lack of protection of environmental water releases and lack of protection of low unregulated flows has caused additional loss of connectivity between the Macquarie-Castlereagh and the Darling River systems.

This connectivity is critical for movement of native fish populations.

CWEC recommends the following rules in the Macquarie-Cudgegong WSP:

1. We support the proposed Cudgegong environmental water allowance. This volume of water must be protected as environmental water once it reaches Burrendong Dam holdings.
2. The Macquarie environmental water allowance must be managed as 100% active water with no timing restrictions on release.
3. Floodplain Harvest extraction must be subject to a full cumulative environmental impact assessment before this activity is formally licensed. The final volume of licensed floodplain harvest must be shared across the current volume of long term annual average extraction limit so that the limit does not increase.
4. Releases of held environmental water must be protected from pumping by a strong set of rules in the unregulated WSP.
5. An end of system flow target for the Macquarie regulated river that is protected through to the Barwon-Darling
6. Available water determinations must be based on the most recent worst period of inflows on record.
7. The Macquarie-Cudgegong Environmental Flows Reference Group has been an effective collaboration between government and community representatives. This group must remain in the rules of the WSP as currently mandated.
8. Low flows in the Castlereagh River must be protected through cease-to-pump rules based on appropriate installation of gauges throughout

the river system. This will ensure the maintenance of low flow connectivity with the Barwon-Darling

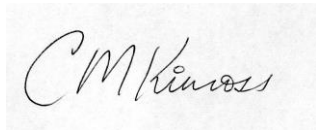
CWEC is concerned about the number of information gaps and unfinished rule development identified in the draft WRP.

The incomplete consultation with indigenous nations is another failing of the process.

We consider that the draft WRP as currently exhibited is highly compromised and represents a failure in providing a fair and transparent consultation process.

CWEC considers that the draft WRP will not meet the clear environmental objectives of the Murray-Darling Basin Plan.

Yours sincerely

A handwritten signature in black ink, reading "Cilla Kinross", is centered on a light gray rectangular background.

Cilla Kinross  
President



## Macquarie-Castlereagh Water Resource Plan

1 message

Chris Huggins <[REDACTED]>  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

Fri, Feb 1, 2019 at 2:40 PM

### Submission from Chris Huggins, [REDACTED]

1. I do not support that decisions on water allocations are made using the worst drought before 2004. This is a high risk approach to water management under climate change scenarios.  
Water modelling and decision-making must be based on the most recent drought of record.
2. I support the proposed Cudgegong Environmental Water Allowance from Windamere Dam. This water must be retained as environmental water once it enters Burrendong Dam.
3. The Environmental Water Advisory Group, made up of community and government representatives, must be a mandatory requirement in the water sharing plan.
4. There must be clear rules to protect environmental water from extraction. It is unacceptable that the water sharing plan was placed on exhibition for public comment without the finalisation of rules to protect environmental water.
5. The free capture of floodwater for irrigation use is a key issue in the Macquarie Valley. The cumulative environmental impacts of floodplain harvesting must be assessed. It is critical that the volume of floodplain harvesting in the Macquarie is calculated. This water sharing plan should not be on exhibition for comment with this information missing.
6. I strongly object to floodplain harvesting licences getting up to 500% carry over.
7. I object to floodplain harvesting available water determination of 2ML per unit share, which is an extra bonus handout to industry at the expense of the environment.
8. I object to the wording change in clause 35 of the unregulated wsp which changes (to paraphrase) "if there is non compliance with the long term average annual extraction limit one year, the minister *will* reduce allocation next year" changes to ""if there is non compliance with the long term average annual extraction limit one year, the minister *may* reduce allocation next year"
9. Access Licence Dealing Rule  
Part 10 access licence dealing rule (Minster's Note). I object very strongly to the conversion of any regulated entitlements, high security or general security from downstream water sources to connected upstream unregulated water sources under any circumstances.
10. The Cudgegong River is managed with an end of system target flow, the Macquarie River should also have an end of system flow to help maintain connectivity with the Barwon-Darling. This is very important for native fish populations. End of system target in regulated Macquarie will:
  - Help make environmental watering more efficient as the Marshes and river bed in the Lower Macquarie will be less parched and absorbent

- Improve landholder rights to water, which are being eroded at the moment due to release efficiencies from Burrendong
  - Connectivity with the Barwon would be easier to achieve.
11. The WRP risk assessment demonstrates that the internationally significant Macquarie Marshes and other environmental assets are under high risk of not receiving enough environmental water. The water sharing plan needs to be improved. The government needs to compensate licence holders if water shared need to be reallocated in order to protect important environmental assets.
  12. Planned environmental water in the Castlereagh River has been reduced. Gauges and meters to measure water use must be installed in the Castlereagh as a high priority of the WRP.

Jane Judd  
[REDACTED]  
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Reference: Draft Macquarie Castlereagh Water Resource Plan

I am a long-time resident of Coonabarabran on the Castlereagh River. I am retired now as both farmer and teacher. I have spent time canoeing, camping and visiting the Macquarie Marshes since the 1980s. I am currently a member of the Environmental Flows Reference Group recommending management action on the Macquarie and the Cudgegong.

I have seen the Marshes deteriorate from extensive flourishing reedbeds, lignum, mixed marsh and river redgums teeming with bird life, to the concentration of reeds along waterways in the south and shrinkage of their extent and health in the north. I've seen dry paddocks where there were once fertile marshlands. I've seen dying redgums, and a fraction of the numbers of birds.

At the same time there has been over-allocation on a grand scale with a massive increase in the volumes of water extracted for irrigation and, increasingly, mining purposes, the development of massive on-farm storage dams, construction of on-farm banks to direct floodwater to this storage and the spread of irrigation farming widely across the landscape. All of this was done legally and encouraged under the rules.

Should this draft plan be implemented, things will only get worse for the environment and in the long term there can be no healthy economy without a healthy environment.

The plan lists the current risks to the environment, the first of which is insufficient water available for the environment. This is already a fact.

- Once water has been designated for the environment, it should remain so until it fulfills its environmental purposes.
- The proposed Cudgegong Environmental Water Allowance from Windamere Dam should be retained as environmental water once it enters Burrendong Dam and added to the environmental accounts.
- There must be clear rules to protect environmental water from extraction. Environmental water released to create a fish connection between the Lower Macquarie and the Barwon was legally pumped in the recent past, jeopardising the fish connection. The water was not protected. These rules should have been finalised before the release of this draft plan.
- The climate is changing at an increasing rate. Water modelling and decision-making should be based on the most recent drought of record, not the worst drought before 2004. There have been 2 severe droughts since then, including the one precipitating the present Barwon/Darling crisis.
- The capture of flood and rainwater for irrigation is a key issue in this valley. Banks have been constructed to divert these waters to on-farm storage. These

volumes have not been assessed. Again, this draft plan should not have been released before this information was available and incorporated into it.

- The plan proposes that floodplain harvesting licences would get up to 500% carryover. This is exorbitant and would not allow any water in the river except in major floods. I strongly object to any carryover.
- Extraction for commercial purposes has been allowed while there were malfunctioning or non-existent meters on the pumps. Calculation of actual extraction is therefore impossible. No pumping should be allowed without functioning meters. This applies also in the Castlereagh where the environmental water allocation has been reduced.
- The long term annual average is a very poor benchmark to calculate allocations since annual flows are hugely variable. In pre-dammed conditions there were many small flows, occasional massive floods and a few intermediate flows. The construction of the dam has eliminated all but the massive floods. The volume of environmental water is inadequate to begin to replicate natural conditions. The average is irrelevant.
- At present the Macquarie Environmental Water Allowance is restricted from releasing water during the irrigation season. That is, irrigation is given priority over environment, even though that water may be essential to environmental outcomes. Environmental water should be given priority, especially with the present quantity of on-farm storage.
- The Macquarie should be managed with an end of system target flow as is the Cudgegong. This would help prevent the Marshes and river bed from being totally dry and make wetting more rapid and efficient. It would also make connectivity with the Barwon easier to achieve.

#### Additional Comments

- Environmental Water Advisory Groups (EWAGs) should be mandatory in every regulated river stretch. My experience on such a committee is that they allow community representatives, farmers and graziers, traditional owners and scientific experts to develop a mutual understanding enabling them to reach good consensus decisions based on deep, broad knowledge.
- The plan would allow High Security Licences to be traded from the regulated river below the dam to unregulated watercourses above the dam. As is obvious from the cases of the Colorado River, the Aral Sea and currently the Darling, that these are the sorts of actions which cause a river ecosystem to die from the bottom up. This should not be allowed.
- I object to the change in wording in Clause 35 regarding non-compliance with long term average extraction limits from "... the minister **will** reduce allocation in the next year" to "the minister **may** ..." Strong monitoring and compliance is essential.

Improvements to this Water Sharing Plan are essential to ensure there is more environmental water.

Yours faithfully

Jane Judd  
31 January 2019







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## Ryde - Hunter's Hill Flora and Fauna Preservation Society

Member of Nature Conservation Council of N.S.W.

Department of Industry,  
[macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)  
1 February 2019

### **Re: draft Macquarie–Castlereagh Surface Water Resource Plan**

Dear Sir/Madam,

We write to express our serious concerns regards the draft Macquarie- Castlereagh Surface Water Resource Plan (M-C WRP).

The chronic and poor ecological health of the Murray Darling River has been a major concern of many Australians regardless of whether they are direct users of its water or merely observe the regular environmental calamities in the media, the most recent being the horrendous multiple incidents of mass native fish deaths in Menindee.

Statements by various politicians that the current drought is the major cause of these ecological disasters are ludicrous given the increasing evidence of a) mismanagement of the Barwon-Darling River by NSW government, b) the influence of cotton irrigators in policy decisions and c) the dismissal of best science in how the Murray Darling Basin Plan is implemented in NSW.

Unlike “drought” the NSW government does have control and influence over these three factors which increasingly look to be the major contributory factors in the mass fish deaths in the major river system of the second driest continent on earth.

Our members and the broader community have supported the adoption of the MDBP and its strategic attempt to improve the health of the highly valued river system. Its guiding legislation Water Act 2007 included objects to address threats to the Murray Darling Basin, restore sustainability to water extraction activities and ensure Australian met international agreements.

As the largest water user in the basin, NSW must demonstrate leadership and genuine commitment to the MDBP. We understand that the purpose of the draft WRP is to advance the implementation the Murray Darling Basin Plan (MDBP), protect environmental water and provide strategies to manage risks including those associated with rainfall variability and climate change.

There is an urgent need to develop the draft M-C WRP transparently as part of the process to restore community confidence in water management in NSW given the history of water theft and mismanagement of water allocation that has occurred previously.

Overall, we do not feel that the State government has prepared the M-C WRP via a meaningful and transparent process or based it on the best available science consistent with the objects of the Water Act 2007.

Our serious concerns:

## **1. LACK OF CLARITY IN HOW EXHIBITED DOCUMENTS ARE INTERCONNECTED.**

It was not clearly stated on the Department of Industry's website that there were actually four documents on exhibition: the draft Macquarie-Castlereagh Water Resource Plan and three existing Water Sharing Plans which are to be amended via a vague process. On another Department of Industry web page the three Water Sharing Plans are stated as either commenced or replaced and variously carry through to 2022, 2023 or 2026. "Fact Sheets" do not clearly state all changes mentioned in the M-C WRP. The current status of these documents is not apparent to the broader public.

The recent Matthews Review report recognised the need for government to improve "previous work practices to enable more informed, comprehensive and rounded advice on water issues to the government". Whilst we are interested in providing comment on such important documents in NSW water management the process seems shrouded via a complexity and apparent resistance by government for broader community engagement on this issue. It seems clear that some matters are "off the table" for comment during this exhibition process ie the three Water Sharing Plans stated to be "commenced or replaced" through to future dates on the Department of Industry's website.

From the OEH website another significant related document to the M-C WRP, the Macquarie-Castlereagh Long Term Water Plan (M-C LTWP) is stated to be on exhibition. It is our understanding that Water Resource Plans must be developed with consideration of the most recent version of the relevant long term watering plan as required by the Environmental Watering Plan<sup>1</sup>.

We could find no clear statements in the M-C WRP as to how it will realise the intent of the M-C LTWP in "identifying the requirements for maintaining and improving river, wetland and floodplain health in the catchment, and recognising its connection and contribution to the overall health of the Murray-Darling Basin".

Further, the Environmental Water Advisory Group is not mandated within the Macquarie-Castlereagh Water Sharing Plan. This group provides expertise and ensures a layer of accountability in water use and management to assist improved environmental outcomes and restore community confidence.

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<sup>1</sup> Despite such a plan being mentioned on the MDBA website we could not locate it and presume that this was replaced in some way by the implementation of SDL.

## **2. CURRENT WATER SHARING PLANS ARE UNSUSTAINABLE.**

The exhibited documents do not recognise that the basin wide SDL, and consequently individual SDLs within the Water Sharing Plans represent an inadequate amount of water to achieve even basic environmental outcomes. Water Sharing Plans based on these SDLs are unsustainable.

The MDBA determined that the environmental needs of the Murray-Darling Basin could be met by an amount they themselves recognised as highly dependent on wetter climate conditions. Using historic rainfall levels to inform SDLs is absolutely inadequate in ensuring a robust MDBP able to grapple long term with the real and predicted impacts of a changing climate. The science community has stated this at length to politicians and the MDBA. Robust predictive modelling of climate condition over the next couple of decades is available and should be used to revise the SDLs underlying all the Water Sharing Plans.

We understand that the Macquarie-Castlereagh Water Sharing Plan was turned off in 2004 due to drought and we are not aware of any changes to it since then to take account of a changing climate. Thus essentially an over 15 year old plan is proposed to guide water use and management in the Macquarie-Castlereagh for the next ten years. This is unfair and potentially illegal in its disregard of best science in the development of the critically important Water Resource Plans.

We urge that the unsustainability of the current Water Sharing Plans within the Macquarie-Castlereagh be recognised. They need to be revised and based on the best available scientific modelling and advice.

## **3. INCLUSION OF END OF SYSTEM GAUGES.**

For the general public, concerned about sustainable use of water within the Macquarie-Castlereagh catchment the installation of end of system gauges would improve community understanding of what is really happening to water flowing in the catchment. How much real catchment water actually “negotiates” the numerous surface and ground water plans - some connecting, some not - the regulated/unregulated water arrangements and the various environmental water portfolios to reach discharge into the Barwon River is an absolute mystery to members of the general public wishing to input into water use and management arrangements in NSW.

The end-of-system flow for the Macquarie-Castlereagh was identified by the MDBA as “moderate” about ten years ago but it is unclear whether this has improved or not, as no gauge seems to have been installed to properly monitor this flow.

An end-of-system gauge at the end of the Macquarie River is critical to ensure vital connectivity with the Barwon-Darling for fish. It will assist better management of the Macquarie Marshes containing the largest area of river red gums in the Northern basin.

The marshes are recognised to be under stress and management in breach of government responsibility under the RAMSAR convention. The need for improved monitoring and use of gauges to monitor flows has been recognised in the M-C LTWP and should be clearly translated into the relevant WSP.

#### **4. FAILURE TO FULLY INTEGRATE PLANS TO ACHIEVE CATCHMENT AND BASIN WIDE CONNECTIVITY**

Regular assessment and monitoring of the ecological connectivity of the areas under the various “administrative” water sharing components within the Macquarie-Castlereagh catchment must be assured to achieve sustainability within the whole catchment.

The MDBA has identified 106 hydrologic indicator sites across the basin with around nine in the Macquarie-Castlereagh catchment. This should assist improved environmental connectivity at a basin wide level.

However, at a catchment level there is need to ensure that water is properly reaching certain natural areas in adequate amounts and at the most appropriate times. Improved environmental monitoring at a catchment level would assist these flows and discharges and improve hydrologic and environmental connectivity.

There is a critical need to better integrate the environmental outcomes identified in the M-C LTWP with the water management practices of the Water Sharing Plans. This could include rules to ensure that environmental water is fully protected across all Water Sharing Plans and throughout the whole catchment. As well a rule is necessary to achieve continuing connection with the Barwon River to be supported by requirements for WaterNSW to ensure it contains adequate storage levels in its dams during times of drought.

The M-C WRP needs to be fully integrated with other Water Resource Plans throughout the whole MDB to ensure environmental water is fully protected to the ocean.

#### **5. NEED TO TAKE ACCOUNT OF FLOODPLAIN HARVESTING**

Floodplain harvesting is currently under government review. The current amount of water actually captured via floodplain harvesting within the Macquarie-Castlereagh catchment is unknown but rumoured to be much higher than government published estimates. The cumulative impact of such harvesting will have further dire environmental impacts especially if future licencing allows generous carryover amounts.

If floodplain harvesting is licenced in the absence of accurate understanding of the amount of water affected there will serious impact on the Water Sharing Plans. It is imperative that this information is made publicly available and able to be considered in the context of the currently exhibited plans.

## **6. FAILURE TO ADDRESS RISKS ADEQUATELY**

The statement and issues papers identified very poor water quality levels and significant risks to environmental assets within the Macquarie-Castlereagh catchment. Clearly there is need for an increased amount of environmental water to be available within the Water Sharing Plans. Improved assessment of weirs and how they may impact water quality should also be undertaken.

## **7. IMPROVED PROTECTION OF PLANNED ENVIRONMENTAL WATER.**

We express serious concerns at the underlying premise in Appendix C: “No net reduction in Planned Environmental Water”. Maintaining existing extraction limits may not ensure the protection of environmental water in the longer term especially given that SDLs have not been determined to take account of a changing climate and subsequent reduced rainfall.

We do not consider it satisfactory that the benchmark be “no net reduction”. It must be set to ensure there is improved protection of planned environmental water that includes mitigation of future risks to environmental water. The protection of environmental water within all of the Water Resource Plans is vital in meeting the intent of the Murray Darling Basin Plan (MDBP) to ensure sustainable use of water within the Murray Darling River basin and restore ecological health to Australia’s largest and most important river system.

Thank you for an opportunity to comment,

Yours sincerely

Cathy Merchant  
Committee Member RHHFFPS

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## Macquarie-Castlereagh SW Water resource Plan To whom it may concern

### Introduction

I take this opportunity to comment on the Macquarie – Castlereagh Water Resource Plan (WRP). I've been interested in water issues for years. I have followed the Murray-Darling Basin Plan (MDBP) since its inception. I see the urgency to implement an initial WRP which indicates that further refinements will be required, on an ongoing basis, for a number of years.

I strongly support the aim of the initial MDBP.

In the past few years a number of uncertainties have become apparent:

1. changing weather patterns
2. ecological disasters (eg current fish kill)
3. unknown water take from floodplain harvesting
4. water extraction without approval
5. unknown water take without the installation of metering
6. the outcome and recommendations of the SA MDB Royal Commission
7. the influence of the NSW State's compliance body - Natural Resource Access Regulator (NRAR) - will have on the availability of water
8. the impact that social and economic considerations may have on the MDBP (the Plan)
9. Politically, with the this year's NSW State and Federal election campaigns

From the WRP Dubbo Workshop, which I attended, I remain optimistic that the scientific knowledge, that Government agencies have available should greatly influence the implementation of the Plan.

Much of the Plan is based on sustainable diversion limits (SDLs), when sustainable could be defined as "the acceptable agreed amount of environmental destruction". Does the WRP provide for the total area of the Macquarie Marshes to be saved or does it set a percentage of them to be saved with the appropriate quantity of water set aside to accomplish the goal?

At the State by-election for the seat of Orange, I asked the candidates: "What percentage of available water would you allocated to the different competing users; urban/industrial, agriculture, mining and the environment". Their only answer was that (paraphrasing) "we need water security". The MDBP may supply the answer to the question as it will consider the interplay between the water users. I will again pursue a more in-depth answer to my question with the elections planned for this year.

### Moving forward with the Macquarie- Castlereagh Plan

#### Urban Use

It should be noted, regional urban water extraction does not equate to consumption as a large proportion could be returned to the catchment via their sewer treatment plants (STP). Total Australian urban extraction amounts to approximately 4% of the consumptive water use (BOM and WaterNSW websites).

I feel that most urban (country towns and cities) inhabitants are willing to adapt with implementing permanent water saving rules, as is the case in Orange, to conserve water. The quantity of water saved by this and other Council efficiency measures will not save a huge quantity of water, as urban water consumption is comparatively low to that used by agriculture.

During the assessment of the Macquarie River to Orange Pipeline, Orange was extracting about 4300 Megalitres (ML) annually but could return about 3300 ML to the catchment via the sewer treatment plant (STP). Effectively, Orange's consumptive use was about 1000ML/year (equivalent to a reasonably small irrigation operation) to sustain all the activities of the city with a population of over 40 000 people. The latest figures on Council's website (Live – Water), indicates the output from the STP is greater than the extraction.

This treated water is transferred to a gold mine in the area, diverting it from the contributory streams of the Macquarie River.

Bathurst Regional Council unsuccessfully considered transferring treated water from their STP to another proposed gold mine in the area.

The combine volume of water produced by these two STPs would exceed the defined low flow for the Macquarie River (22ML/day) and if totally diverted would possibly change a low flow to potentially stopping the flow in the river. I don't think the Plan fully accounts for this situation, the loss of water to the environment and downstream water users if water utilities (mostly Councils) are allowed to trade this treated water.

The discharge from STPs maintains a constant daily delivery of temperature appropriate water for the river environment.

For the past century the discharge from the STPs along the Macquarie River has contributed to the establishing the annual flow and long term average annual flow. The WRP and MDBP should acknowledge this water source and its benefit to the river ecology. The return of the treated water could possibly be considered as contributing to the environmental water target for the MDBP and included in the "buyback" strategy. The Plan could consider reimbursing Councils for any fees due to the NSW Environment Protection Authority (EPA).

Any reuse of this treated water by Councils should be offset by an equivalent amount of extractive water, thereby not reducing the balance for environmental water.

#### Floodplain Harvesting

There are many uncertainties surrounding floodplain harvesting:

1. the quantity currently being harvested
2. the existence of non-approved harvesting structures
3. local councils' ability to approve development applications that impact on flood pathways
4. licensing issues.

These are some of the issues requiring further and more detailed analysis, before inclusion into any WRP or the MDBP.

“A global study has found a paradox: our water supplies are shrinking at the same time as climate change is generating more intense rain.” “We believe the cause is drying of soils in our catchments” (The Long Dry, UNSW Newsroom 13 Dec 2018). Changing rainfall patterns, higher temperatures, aquifer interference from mining operations and the building of dams changing flood frequency and magnitude could be contributing factors to this problem. A more cautious approach to floodplain harvesting should be reflected in the WRP for the Macquarie and Castlereagh area.

When licensing arrangements (including measured take) are formalised, floodplain harvesting should be limited to 1 year’s extraction limit. The proposal to allow for a 5 year allowance extraction from a flood event should not be approval because of the environmental impact and the possibility of distorting the sharing of water to downstream users and or to WaterNSW storages.

Compliance issues, with allowable 5 year harvesting rules, would present administrative and problems associate with restricting further harvesting from subsequent flooding events for the next 5 years. Any floodplain harvesting licence holder should be restricted to a 1 year extraction limit

Some other concerns are:

1. due to scarce surface water limiting extraction, an over dependent use of groundwater will occur
2. the over extraction of licensing limits in any year could affect the recharge rate of groundwater sources.
3. Licence holders using bores should be limited to 1 year extraction limits with no carryover.

Flood events, and importantly major flood events, are curial for the health of the Macquarie Marshes and connectivity fish passage with the Barwon River.

The Local Land Services (LLS) and other Government agencies; should be proactive in assisting farmers and the farming communities existing on floodplains to adopt more resilience measures in coping with flood events. This is important as flood events are essential for recharging groundwater storages but recent flood events haven’t successfully recharged many of the groundwater storages.

#### Water Trading

“Water is critical to life on this planet” (The Darling’s dead fish of late capitalism: Eureka Street, 17<sup>th</sup> Jan 2019, Cristy Clark) as we all well know. Australia has jeopardised the security of access to water by introducing, and possibly not properly regulating the water trading market.

**I am concerned by the market distortions of water allocations to the higher value adding usage sectors (fibre and mining). Without percentage limits placed water for food production in the agricultural area there is evidence water is diverted to the fibre section (cotton). The MDBP should reflect the need to value Australia’s food security, although it is difficult to price it, since it has an intangible value.**

Similarly, a mining company purchase of groundwater agricultural licences for use in mining operations. It must be noted that any mining operation would definitely use their allocation, whereas the agricultural use may not use their allocation every year further adding to the overall water take.



As the above article indicates; “the problem with commodifying water is that its social and environment values are not naturally reflected in the market.” I wait with interest to see how the MDBP accommodates the value of a healthy river system (Macquarie- Castlereagh) for river communities, including cultural needs.

I feel that high security licences or a proportion of them should not be traded, temporary or permanent. If Councils along the Macquarie or Castlereagh Rivers find that they have a surplus, I (and hopefully provisions in the WRP) would rather see water returned to the environment from whence it came.

#### Environmental Water

The WRP should protect environmental water and ensure that there are sufficient quantities of environmental water available to achieve the aims of the MDBP.

In the Macquarie – Castlereagh WRP the following should be considered:

- ✓ How any WRP supports the environmental health at the end of the river system should be an indication to the success of the WRP. The connectivity through the Macquarie Marshes to the Barwon River is important.
- ✓ Rules and operational measures to protect the delivery of environmental water should be clearly set out in the WRP
- ✓ The recent water transfer from Windamere Dam to Burrendong Dam probably contained environmental water, which should be retained as such in the new impoundment.
- ✓ NSW State Government is implementing a policy of including more community involvement to achieve a better balance in committees and advisory boards. Any meetings to discuss the WRP and its implementation/ on-going operations/ revision should include some interested and capable members of the general public. This should be mandatory in the WRP.
- ✓ Government agencies (WaterNSW, DoI Water, OEH and NSW Fisheries, Environmental Water Holders) should have a greater representation at any WRP stakeholders meeting to obtain a better reflection to the consumptive use of water.
- ✓ Metering of all water take is flagged as a necessary and urgent requirement to protect environmental water.

#### Conclusion

The sooner a scientifically based Macquarie – Castlereagh WRP (or interim) is finalised the better.

Yours sincerely

Cyril Smith



31<sup>st</sup> Jan 2019

## NPA submission to the draft Macquarie Surface Water Resource Plan

1<sup>st</sup> February 2019

To: NSW Government Department of Industry

By e-mail: [macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au](mailto:macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au)

### Introduction and general points

The National Parks Association of NSW (NPA) is longstanding conservation organisation that seeks to promote appreciation and protection of nature, with a particular focus on national parks and other protected areas.

NPA has long recognised healthy rivers that sustain our communities require management provisions to take into account whole of system connectivity, from the uppermost wetlands and swamps through to the floodplains, coastal lakes and estuaries. NPA has consistently advocated for water reform, and accordingly welcomed the Commonwealth Water Act of 2007 with provision for all relevant state and territory governments to work collaboratively with the Commonwealth on the Murray Darling Basin Plan (the Basin Plan).

Notwithstanding much good work that has been done, NPA has been shocked by the aspects of process and practice that now threaten, as predicted, to fail to deliver a Basin Plan in keeping with the spirit of the legislation. It is much more than compliance with the rules as, while that is essential, if the Basin Plan and its implementation is to be trusted, compliance is futile if the rules themselves are not trusted.

The most recent clear indication of concern, articulated in the just-released Report of the South Australian Royal Commission, is that the proposed Water Resource Plans (WRPs) cannot deliver adequate outcomes. The tragic and extensive fish kills, a symptom of a system in trouble, substantiate the need: for a rethink as to the basic data on which Water Resource Plans are based; to ensure up to date trends in climate change are built into the Basin Plan; to ensure that plans for individual water resource units are clearly linked into a whole of system scheme rather than as individual unrelated 'silos'; for a phased, transparent and equitable transition into long-term and sustainable levels of water extraction and management is articulated and resourced.

### Specific Points

The Macquarie Marshes and Wilgara wetlands are key icon sites within the Murray-Darling Basin, listed under the Ramsar Convention for their values of international importance. However, their ecological character is under threat as increased upstream water extraction within the now regulated river has reduced the volume and natural variation of flows. The WRP fails to adequately safeguard these values.

Floodplains along the Macquarie are an important element in the biological cycle of replenishment and recruitment of water-dependent vegetation and wildlife in the lower reaches of the Macquarie. Floodplain harvesting diminishes this cycle affecting the viability of the river and wetland system downstream. It is therefore crucial that adequate measurement and management of floodplain harvesting is in place as a component of water resource rules. NPA considers it unacceptable that critical information about how this will work is not yet available.

The Matthews Report, instigated by the NSW Government following exposure of substantial failures in compliance with unaccounted for water extraction upstream, recommended a 'no meter no pump' approach, leading to prompt establishment of a new Natural Resource Access Regulator. This was an

important step forward towards improving trust, but compliance alone is useless if the rules themselves are not derived on the basis of known and trusted information.

One of the good elements of the initial WSP for the Regulated Macquarie River Water Sharing Plan was entrenchment of the Environmental Flows Reference Group (EFRG), later known as the Environment Water Advisory Group (EWAG). The EWAG included representation natural conservationists as well as of local graziers, farmers and irrigators along with an independent scientist versed in river and wetland ecology along with Environment, Fishery and Water management agencies. Over the years this group has provided invaluable advice towards water management despite being sometimes constrained by perverse or inappropriate elements within the set rules and administrative practices. NPA urges that such a group, under an independent chair, be entrenched in all WRPs.

The importance of shepherding environmental water through the system cannot be overstated. It was recognised as an essential component of the Northern Basin Review. It has been particularly frustrating to realise that under the existing fragmented approach, environmental water releases that flow beyond Bells Bridge—and thus out of the Macquarie WSP jurisdiction—may be extracted without constraint rather than allowed to flow on downstream. This reinforces the urgency of ensuring a water resource planning regime that safeguards water designated for environmental purposes to flow through the system to its intended target area. A piecemeal approach is just not good enough.

The fluctuation in rainfall and temperature in Australia has long been recognised; however, the clear recent upward trend in temperature and changes in rainfall pattern make it clear that modelling as a basis for water management and extraction must take account of recent drought of record information, and that going back to 2004 is not good enough.

In summary, while there are some small but useful elements, the lack of crucial information and a database that can be trusted means the draft WRP is unacceptable.



# AUSTRALIAN FLOODPLAIN ASSOCIATION

*Healthy Rivers - Healthy Communities*

Hard copy correspondence to Julie McClure, Secretary AFA, [REDACTED]

Email: Terry Korn PSM, President AFA, [REDACTED]

## **Feedback on the Draft Macquarie Castlereagh Water Resource Plan 2018**

The Australian Floodplain Association is a non-government organisation, established in 2006. It represents floodplain and wetland landowners and their communities who depend on healthy rivers, floodplains and wetlands. Its membership resides predominantly within the Northern Murray-Darling Basin and includes floodplain graziers, community groups and shire councils.

The Australian Floodplain Association welcomes the opportunity to comment on the Draft Macquarie Castlereagh Water Resource Plan (DMCWRP). We appreciate the effort of the DOI Water staff involved in its preparation and understand the difficulties faced during its development. Nonetheless we have questions, queries, criticisms and suggestions which we ask that you address.

### **Floodplain Harvesting Policy Integration Concerns**

The NSW Floodplain Harvesting Policy (FHP) and its implementation are of extreme importance to AFA members as most derive their income from floodplain properties.

AFA understands that the FHP was developed in isolation from the DMCWRP (but in parallel with it) and that the new policy has effectively been parachuted into the latter, despite it having incomplete information. The removal of any water from the floodplain is going to have negative impacts downstream.

This increases the concern of AFA members because such an approach is rarely seamless and generally leads to perverse outcomes. If this approach is pursued by government then the DMCWRP and other WRPs must have clauses included which allow them to be adapted

quickly to accommodate new knowledge on FPH as it arises. The AFA also has serious concerns about the following specific aspects of the proposed FPH policy:

- Trade rules and take heights
- Irrigator behaviour questionnaire. We believe it is unacceptable to ask an irrigator how much they have been taking and then issue a licence on the basis of their answer.
- The proposed carryover conditions are unacceptable as floods are infrequent in the Macquarie and it would be possible for extraction to remove the whole flood if carry over was used. This would have dire consequences for downstream floodplain dependent communities.

The AFA contends it is essential that the relationship between the FPH policy implementation and its impact on Planned Environmental Water (PEW) is adequately explained. Can an assurance be given that PEW will not decrease in volume over time as a result of the FPH policy implementation? We ask that you remember the fundamental principle that the Basin Plan and WRPs are about equity, sustainability and health of rivers for all communities – not just the irrigation community.

***So we pose the question: Can the DMCWRP meet Basin Plan requirements for no net loss of PEW when FPH water under the new policy is accounted for?***

### **The Importance of Connectivity**

The AFA has concerns about how floodplain harvesting is being calculated Basin-wide, how this has been accounted for in the calculations of sustainable diversion limits and how take of this magnitude can be contemplated in the Macquarie (a) where Ramsar obligations could and should be substantially improved and (b) the ultimate impact on the Barwon Darling and Lower Darling/Murray planning areas is unknown while ever plans are reviewed and considered separately. Both the NSW DOI Water and the MDBA must ensure each Northern Basin WRP informs other downstream WRPs so that *real connectivity* occurs through the whole system and end of system flow targets are met.

The current parlous state of the Darling River system is due to 30 years of cumulative negligence by governments. Failure to act on connectivity and address end of system targets is part of the cumulative negligence. The current review of WRPs offers government an opportunity to correct this past deficiency.

## **Community Owned Water**

Following on from this we believe the community increasingly expects measurable achievements from the use of community owned water (environmental water).

Connectivity with regulated flows and the resultant contribution to environmental, social, cultural and economic outcomes needs to be hardwired into all Northern Basin new generation WRPs. Community owned water provides significant socio-economic, spiritual and cultural benefits to Basin communities through flow-on effects from improved health of the natural environment.

## **Recognition of Advice from the Environmental Water Manager and Statutory recognition**

### **Of the Macquarie EWAG.**

Advice from a stakeholder community based Environmental Water Advisory Group (EWAG) has and must continue to provide local informed advice on water management in the Macquarie Valley. We note that page 48 of the DMCWRP says the EWAG is legally established in the WSP, as part of the DMCWRP. This is critical to good outcomes in WRPs where EWAGs are relevant. The EWAG structure and operational rules must continue to be legally validated in the DMCWRP. A statutory rule is required to ensure Aboriginal participation. Other relevant stakeholder groups should also be specifically identified for the EWAG. Decision making in relation to management of community owned water (environmental water) should rest with the NSW Environmental Water Manager and not Water NSW or DOI Water.

## **Integration of Long Term Watering Plans and Water Resource Plans**

There are no long-term watering plans for NSW currently approved (even though they should have been delivered by 2015). The Macquarie Castlereagh LTWP is currently on exhibition with the Macquarie Castlereagh WRP, the former required to inform the latter.

The AFA asks “how then will the Basin Plan section 10.17 below be complied with in relation to the development of appropriate rules in water resource plans? The Draft Macquarie Castlereagh WRP cannot credibly be informed by the Macquarie Castlereagh LTWP if the LTWP has not been properly considered by the Macquarie Castlereagh Stakeholder Advisory Panel prior to the drafting of the MCWRP.

### ***10.17 Priority environmental assets and priority ecosystem functions***

*(1) A water resource plan must be prepared having regard to whether it is necessary for it to include rules which ensure that the operation of the plan does not compromise the meeting of*

*environmental watering requirements of priority environmental assets and priority ecosystem functions.*

*Note: The environmental watering requirements of priority environmental assets and priority ecosystem functions will be set out in long-term watering plans and may also be set out in the Basin-wide environmental watering strategy. Long-term watering plans are required to use the methods in Part 5 of Chapter 8 to identify those requirements.*

*(2) Without limiting subsection (1), regard must be had to whether it is necessary for the rules to prescribe:*

*(a) the times, places and rates at which water is permitted to be taken from a surface water SDL resource unit; and*

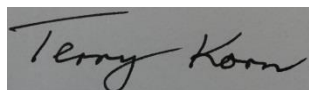
*(b) how water resources in the water resource plan area must be managed and used.*

*(3) If the outcome of the requirement in subsection (1) is that such rules are necessary, the water resource plan must include those rules.*

### **Dam operation during floods and spills.**

On page 58 the AFA notes this has been changed from ‘leave storage at full supply level at the completion of the flood event’ to now “leave the storage as full as possible after the flood or spilling of water”

AFA members see this change as a way of the NSW government holding water back and totally disagree with this change. The matter has not been discussed by the SAP and must not be included in the new plan without referral to the SAP.



Terry Korn PSM

President

Australian Floodplain Association

1 February 2019



Macquarie-Castlereagh SW WRP <macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au>

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## Submission to the Macquarie Castlereagh Water Resource Plan

1 message

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**Robert Hatton** <[REDACTED]>  
To: macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au  
Cc: [REDACTED]

Sat, Feb 2, 2019 at 9:37 AM

Sent from my iPhone Don't allow high security licences from below Burrendong Dam to be tradeable. Otherwise the Macquarie River will be in trouble like the Darling River is in trouble. Kind Regards Robert Hatton. Dubbo





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**Fwd: Replenishment flows in the Belaringar**

1 message

[REDACTED] [REDACTED] [REDACTED]  
To: Macquarie-Castlereagh SW WRP <macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au>

Please see attached submission from Tom Moxham for processing.

[REDACTED]

[REDACTED]

[REDACTED]

**Please Note: I do not work Fridays.**

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] regards to the Belaringar Creek and the lack of replenishment flows.

I am not sure if this creek is regarded under the plan if it is regulated or not. It is regulated in the sense that it is completely cut off under the current water sharing plans unless there is a flood.

Historically, the Belaringar used to receive two stock and domestic/environmental flows a year. This was the practice after Burrendong Dam was built and certainly the case in 1970/80s. It should be noted that this ignored creek in flood time takes up to 50% of the Macquarie valley's flood water, when the regulator on the Macquarie River is opened. The rest of the time the regulator is firmly shut.

At a recent meeting I attended, the department's representative was very quick to point out that "there is no water stored in Burrendong Dam for the Belaringar and it is not entitled to any of that water". It was also pointed out that we should have fought for that right to water when the original water sharing plans were negotiated! So the result is that there is no water in the dam for this creek except in flood times. A very equitable outcome! But what about water from the Bell and Talbragar rivers when they have good flows? This water is no longer shared with the Belaringar. Further 1500 mgs used to 'allocated' to the lower Belaringar through the Albert Priest Channel. Over the last few years this has not been the case.

The Belaringar has not had a stock and domestic or environmental flow for the last 2 and half years. Why is it not regarded as an important environment? Why does it only have any environmental, economic or social value or significance in times of flood? Clearly the Belaringar Creek has been the sacrificial lamb to environmental and general security water rights. It is time that this inequity was righted. Particularly as the Belaringar is a relatively short creek that flows back into the regulated Gunningbar Creek, so no water is wasted.

Best regards

Tom and Bomber Moxham

[REDACTED]

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**From:** Julie Lovell <[REDACTED]>  
**Sent:** 01 February 2019 10:06  
**To:** tom moxham  
**Subject:** Re: Hi

Hi Tom  
Just on the phone at the moment. I'll give you a quick call when I get off the phone which wont be until 11am.

Sri (WaterNSW) phone number is [REDACTED] - he can help you with whats happening in the system. If its licence conditions etc it might be someone else. If its about what is in the Water Sharing Plan that will be me so we can discuss when I call.

cheers  
Julie

[REDACTED]

**Please Note: I do not work Fridays.**

On Fri, Feb 1, 2019 at 9:50 AM tom moxham <[REDACTED]> wrote:  
Hi Julie

I would like to speak to someone in Dubbo office who knows about the Belaringar Creek and what plan applies to it etc. Can you give me a number of Shri or someone there or call me on [REDACTED].

Regards

Tom Moxham

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This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.

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This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.

## Submission to the draft Macquarie Castlereagh Water Resource Plan

Name: Timothy Paul Francis

Address: [REDACTED]

Phone: [REDACTED]

To: whom it may Concern

My name is Tim Francis, I am a resident of Nowra Nsw and I spend a lot of time on the Macquarie/Cudgegong Rivers.

The health and resilience of our rivers and the way they are managed in the Murray Darling Basin is very important to me and my family because it's a way of teaching my children about ecosystems and we have vacationed there since I was a kid.

Please accept my submission to the draft Water Resource Plan (WRP) as a concerned resident of the Macquarie Valley.

### 1. Converting the translucent flow releases with an environmental water allowance for the Cudgegong River

I support the conversion of translucent flow into an environmental water allowance (EWA), but I have concerns about the following:

- I think environmental water should be able to be released from Windermere dam below 110 GL dam level, otherwise there won't be many opportunities to release environmental water down the Cudgegong to help native fish breed.
- When environmental water is released from Windermere dam and ends up in Burrendong dam, it should be added to the existing environmental accounts in Burrendong dam. Environmental water should be protected right through the Macquarie system to benefit native fish populations and river health.
- The amount of water in the new EWA should be the equivalent of the current translucent account, that is around 14,000 ML. It isn't right that the volume is only 12,300 ML.

### 2. Floodplain Harvesting (FPH)

The volumes of water that can be collected from rainfall and flood events from the Macquarie Valley is still being calculated, and it isn't clear how these volumes (expected to be large) will fit into this Water Resource Plan and how water will be shared. Signing this plan off before the volumes of FPH are known isn't a very transparent process.

I am concerned about the 300% - 500% carryover allowance that is proposed for FPH licences once they are issued. If floods get further apart, it's possible that the amount of water that can be kept out of the river will be up to 3 to 5 times the volume of the floodplain harvesting licences. This

seems very unfair to the river, as the rivers' carryover allowance won't be going up as well, the river will have to make do with what is left.

3. Environmental Water Advisory Groups (EWAGs) work very well, bringing together traditional owners, scientists, community representatives, farmers and graziers who work together and advise the government how to manage environmental water in their patch. Over time, these groups accumulate a lot of local knowledge about their patch of river, and how their river connects to the rest of the basin. EWAGs should be mandatory in every regulated river stretch.

#### **Additional Points that should be in the Water Sharing Plan**

1. When water is purchased by the tax payer for the rivers, it should stay in the rivers until it reaches its natural destination, and must be legally protected from pumping. Ownership of a private asset is not allowed to be degraded, and nor should a public asset like water for the river and fish. Once public water is paid for by tax payers, it should remain in the rivers to take its natural course.

2. WaterNSW needs to keep more water available in the dam for times when the water sharing plans are suspended (like in extreme drought), to make sure there is enough water available to send down the river to keep fish alive. The rules should say it is necessary to include dam inflows figures from the current drought (the worst on record) when working out how much water in the dam is available for sharing, rather than exclude the figures from drought (as is currently the case). The community expects a bigger buffer in the dam for when times are dry.

3. There needs to be an end of system target flow in the regulated Macquarie, otherwise there's no requirement for WaterNSW to send water out of the dam when paying customer orders slow down or stop. Not having an end of system target puts our native fish in the lower Macquarie at great risk of kills, as we have recently seen.

4. The Macquarie River is an important water source for the Barwon and Darling rivers, especially in late winter and early spring when other Northern Basin Rivers aren't being fed by monsoonal falls. Achieving connection to the Barwon must be a rule within the Water Sharing Plan. The environmental flow from the Macquarie in the second half of 2018 managed to get water down to the Brewarrina weir pool, this water may have saved Brewarrina from running out of water like Walgett did.

Regards,

Timothy Francis

[REDACTED]

Date: 31/01/2019



DPI Water  
PO Box 829  
Albury NSW 2640



**TOLARNO STATION 1851 Pty Ltd**

via Wentworth, NSW, 2648

www.tolarnostation.com.au

Friday, 1 February 2019

### **Submission on the Draft Macquarie-Castlereagh Surface Water Resource Plan**

Thank you for the opportunity to comment on the Draft Macquarie-Castlereagh Surface Water Resource Plan (WRP).

I own three properties totalling 500,000 acres on the Lower Darling, approximately 50 km south of the Menindee Lakes. Tolarno Station sits on the Darling River, and all three properties depend on the Darling for livestock and domestic purposes. The properties have a rich history spanning 160 years, and today run merino sheep, cattle and rangeland goats.

In developing WRPs it is important to reflect on the aim of the Murray-Darling Basin Plan (MDBP), which is to

*“... ensure water is shared between all users, including the environment, in a sustainable way. It does this by managing the basin as one system.”(MDBA)*

I recognise the role of WRPs in the implementation of the MDBP at a regional level. However, it is critical that the WRPs are interconnected and support the common aim. It must also be recognised that environmental, social and economic risks identified within one WRP area are impacted by the water sharing plans (WSPs) and WRPs of other areas.

I provide the example of events in the Lower Darling over the period of 2015-2016. The Lower Darling was dry for a period of 8 months. In white history, it has only been in the last 10 years that on 3 occasions there has not been a permanent water supply. During this period, there were significant and long-lasting social and economic impacts to the community. On my property alone, I experienced significant loss of land, stock and production. 200,000 acres of land was lost to production due to loss of property borders (the river is a natural boundary between properties) and no potable water for stock. The situation in 2015-2016 was worse than any experienced during the 2000s drought. The catchment had received average rainfalls over the preceding 12 months, and in our opinion the event was a result of over-diversion in upstream WRP areas, conjunction with ineffective management of the Menindee Lakes.

I hope that through the development of effective upstream WRPs which truly prioritise the river environment, such an environmental, social and economic disaster which occurred will be avoided in the future. The community seeks appropriate, sustainable long-term management of the Darling and its tributaries. We recognise that the MDBP and WRPs are critical in achieving this.

### **Dependence of the Lower Darling WRP area on upstream WRP areas**

The Lower Darling catchment has minimal runoff and is entirely dependent on inflows from the Barwon-Darling, of which 99% of flows are generated in upstream tributaries (MDBA). The Lower Darling is the only connection between the Barwon-Darling and the Murray Rivers.

### **Comments regarding floodplain harvesting**

The modelling regarding the volume of water which can be captured through floodplain harvesting is still underway, and has not been released or accounted for within the WRP. It is anticipated that the volume will be significant, and it is critical that the WRP is not finalised prior to the finalisation of the volumes which will be captured through floodplain harvesting. Signing off on any WRP which does not adequately account for floodplain harvesting demonstrates negligence and incompetence by the Department.

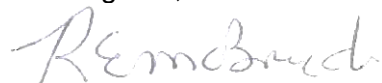
I am particularly concerned about the proposed carryover allowance of 300% - 500%. It is possible that the amount of water that could be captured would be up to 3-5 times the volume of the floodplain harvesting licences. This would have a significant impact on flows in lower reaches of the Basin.

### **Additional issues which should be addressed in the Water Resource Plan**

- The WRP fails to recognise the protection of water purchased for the environment. It is critical that any 'environmental water' be protected through the system and not increase the capacity for pumping of irrigation licenses. This issue has been identified in a number of reports, including the Matthews Report.
- It is critical that there be end of system target flows. This is not addressed sufficiently in the WRP, and fails to meet the purpose of the WRPs within the broader Basin Plan. This comes back to the fundamental requirement to ensure connectivity between WRP areas and ensure a healthy Murray-Darling Basin Plan.

I would be happy to expand further any of my above comments. It is critical that this WRP is not signed off until the issuer of connectivity between WRPs is addressed.

Kind regards,



**Robert McBride**

Tolarno, Peppora and Wyoming Stations

[Redacted]

[Redacted]

[www.tolarnostation.com.au](http://www.tolarnostation.com.au)

I am finding this submission very difficult to write as I am horrified at what is happening to our once mighty river system, the Murray Darling Basin, and what is currently planned for its future. The Macquarie-Cudgegong river system is a part of the Murray-Darling Basin so we need to take utmost care in our deliberations and decisions.

The water sharing plan was placed on exhibition for public comment without the finalisation of rules to protect environmental water. This shows the complete lack of understanding of the necessity of this water, leading to the fish kills we have seen recently in the Darling River and the Menindee Lakes.

First and foremost, the Environmental Water Advisory Group, made up of community and government representatives, must be a compulsory requirement in the water sharing plan. This advisory group must also include scientists expert in hydrology and ecology.

We are experiencing one horrendous drought at present, one exacerbated by climate change. It is very dangerous under these circumstances to make decisions on water allocations using **the worst drought prior to 2004** as a benchmark. Using the current drought would be more appropriate, or at least, the last "worst" drought.

The Macquarie Environmental Water Allowance should be managed on the basis of 100% active use with no use restrictions during the irrigation season. Environmental Water is too precious to be extracted for other use. Our ecosystems developed using every drop of water that fell on the landscape.

The proposed Cudgegong Environmental Water Allowance from Windamere Dam is absolutely necessary, and should be kept as such when it enters Burrendong Dam, not given to irrigators and other users.

The Cudgegong River is currently managed with an end of system target flow. Please do the same with the Macquarie River, to help it maintain connectivity with the Barwon-Darling. This is very important for native fish populations. With the ecological catastrophe of the fish kills this year it becomes mandatory.

Planned environmental water in the Castlereagh River has been reduced. Gauges and meters to measure water use must be installed as a high priority of the Water Resource Plan. As a rural town dweller it astounds me that people can extract water without this monitoring equipment.

All environmental water needs complete protection from extraction, with clear rules to deliver this outcome.

As I mentioned earlier, the water sharing plan was placed on public exhibition without the finalisation of rules to protect environmental water. This is not the only information missing. Calculations of the volume of floodplain harvesting in the Macquarie Valley are not given. The free unmeasured take-up of floodwater is a major issue in the valley, along with the cumulative effects of this on the region and the internationally recognised Macquarie Marshes.



It is unacceptable that this information is not available. It is critical.

It is also unacceptable that floodplain harvesting licences get up to 500% carryover. No wonder our river systems are in dire trouble.

It is time for a much improved water sharing plan. Without a healthy ecosystem we cannot survive, nor our communities. We ignore this fact at our peril

Diane O'Mara

[REDACTED]

[REDACTED]

1 February 2019