



Healthy Rivers Dubbo

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Submission to Draft Macquarie-Castlereagh Surface Water Resource Plan

To: NSW Government

Department of Industry

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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. ¹

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

¹ <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.

3rd 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).²

According to KBAS IN DANGER THE STATE OF AUSTRALIA'S KEY BIODIVERSITY AREAS IN 2017 report³

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

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

³ 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. ⁴

The Water Act 2007, Basin Plan and WRPs

The Water Act 2007⁵ 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 ⁶ 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.

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

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

⁶ <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:⁷

- 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 $\mu\text{S}/\text{cm}$ (not suitable for human consumption or irrigation) to 608 $\mu\text{S}/\text{cm}$ (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.

⁷ <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

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