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SUBMISSION TO THE NSW DPIE  
ON  
THE BORDER RIVERS REGIONAL WATER STRATEGY

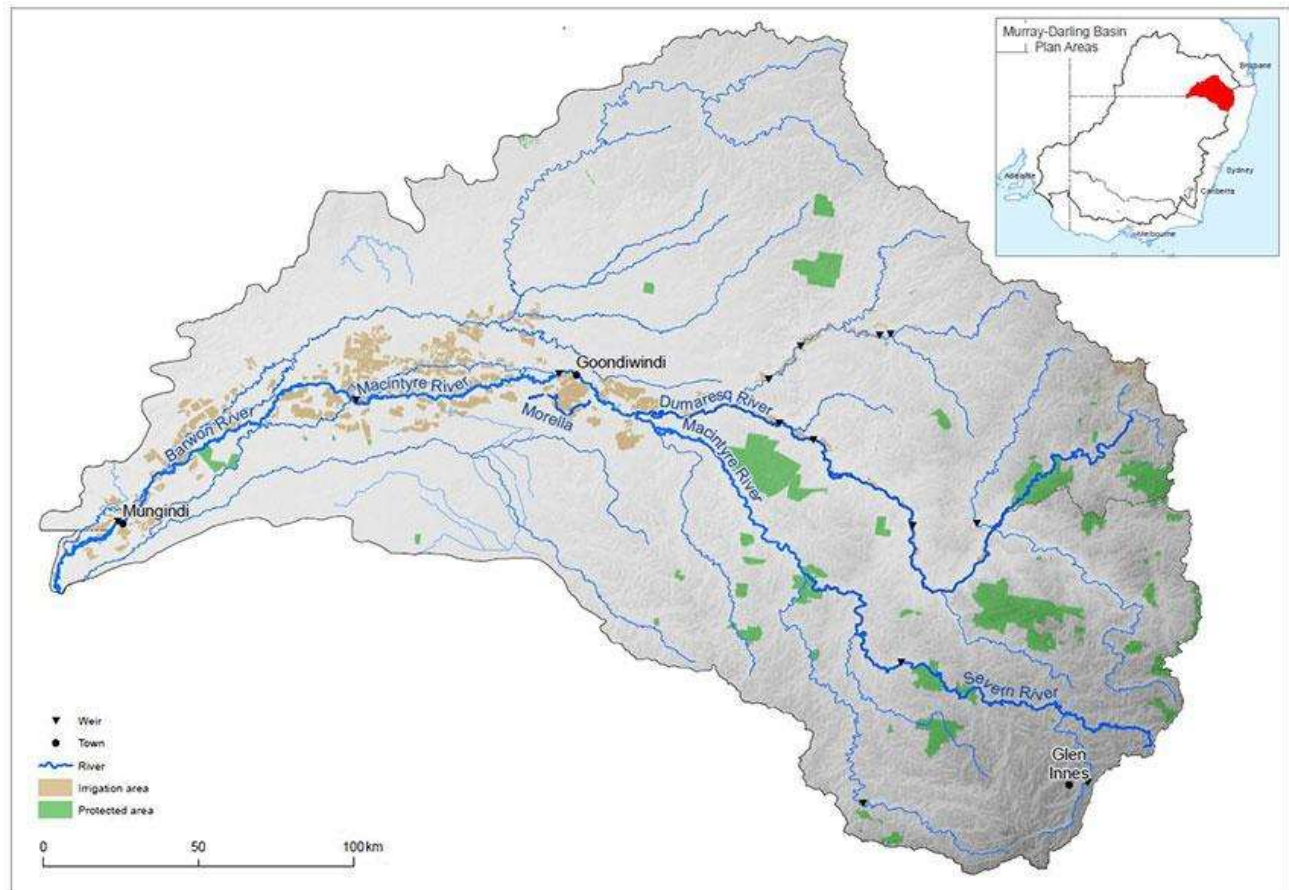
SUBMISSION DUE BY 12PM MONDAY NOVEMBER 30TH 2020

Prepared by  
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AFFILIATES: BOOMI-GNOURA GNOURA WATER USERS ASSOCIATION; DUMARESQ VALLEY IRRIGATORS ASSOCIATION; EASTERN RECHARGE GROUNDWATER USERS ASSOCIATION; LOWER WEIR RIVER WATER USERS ASSOCIATION; MACINTYRE BROOK IRRIGATORS ASSOCIATION; MACINTYRE VALLEY COTTON GROWERS ASSOCIATION; MOLE & SOVEREIGN WATER USERS ASSOCIATION; MUNGINDI WATER USERS & COTTON GROWERS ASSOCIATION; PINDARI WATER USERS ASSOCIATION; UPPER WEIR RIVER & TRIBUTARIES WATER USERS ASSOCIATION

## INTRODUCTION

Border Rivers Food and Fibre (BRFF) represents the water users and entitlement-holders of the Border Rivers region of southern Queensland and northern New South Wales. These water-users responsibly utilise the water resources of the Macintyre Brook, the Dumaresq, Macintyre, Severn, Weir and Barwon River systems and the Eastern Recharge Zone of the Great Artesian Basin. Production from irrigated agriculture includes vegetables, nuts, dairy, citrus, wine-grapes, herbs, stone-fruit, hay, cereals, coarse grains and cotton. Irrigated agriculture contributes nearly \$1 Billion (farm gate) to the local economy in good years.



This document represents the views of the members of BRFF, though individuals are entitled to their own views relating to their own circumstances.

BRFF is also a member of the NSW Irrigators Council and National Irrigators Council. Whilst generally endorsing their views, we maintain the right to hold independent positions when appropriate.

## SUBMISSION

The Regional Water Strategy needs to explore how water can best be used for the good of the State of NSW. Currently the system of predominately annual crops suits ephemeral systems like the Border Rivers well, but there is a cycle of boom and nearly bust which follows, in a delayed fashion, the seasonal cycle. Businesses have adapted to cope with the dry times by shedding staff and adopting austerity measures while remaining ready to act as soon as seasonal conditions improve.

**STORAGE** - Best use requires significant storage capacity. Currently that exists in the form of 2 small headwater storages and numerous on-farm storages. Efficiency of on-farm storage is a perennial issue. In an ideal world, all water would be stored 'high and deep' but the realities of weather in the Border Rivers is that rainfall often occurs below the headwater storages on the plains, in storm events which drop large volumes of rainfall in a short period, creating run-off events which can be extracted within limits. The fact that so much of the available resource falls below the existing dams means **that on-farm storage and access to overland flows and rainfall runoff will remain a significant feature in water use in the valley.**

**CLOSE TO ITS SOURCE** - Water is best used close to its source to avoid the delivery losses that occur when trying to deliver flows over long distances in a dry river. While it is acknowledged that these losses constitute significant benefits to the riverine environment, they potentially come at the cost of successfully delivering water to a township or community during a drought.

Caution should be exercised around the expectations that metering upgrades will have any impact on water availability at all. These upgrades will only improve availability of information of what has been extracted as works in the Border Rivers have always been metered, but meter-reading was only performed a few times each year.

**CAUTION ON PROMISES ABOUT 'CONNECTIVITY'** - We acknowledge that downstream connectivity is highly desirable and a key feature of existing water sharing arrangements. Promises of 'improving waterway connectivity in the Barwon-Darling' in a changing, drying climate seems to indicate the desire to reallocate water from productive use to achieve these aims during droughts. **There will be some extra water that will flow into the Barwon-Darling as a result of licensing of FPH, but this will obviously occur only during floods, not during a drought when the extra volumes are most needed for re-establishing 'connectivity'.** Droughts can only be overcome in an effective way by storing water when it is plentiful to use when it is not. It should also be noted that there are expectations around connectivity that some interpret to mean 'drought-proofing' and that the river will always run. We submit that the streams of the Border Rivers have always been episodic and that cease to flow events occurred regularly prior to the building of storages and regulating of the resource. Future climate projections make cease to flow events seem even more likely than is currently the case. Storages have helped attenuate the extremes of water availability and more storage capacity will be required if current flow regimes are to be preserved in the future drying climate sequences. This extra storage can help better manage the existing resource for the benefit of all water-uses, including the environment.

## MAINTAIN AND DIVERSIFY WATER SUPPLIES

Mole dam won't create any new water, only manage differently what we already have.

A new source, such as a Clarence diversion, would add new water to the system and open up opportunities to achieve outcomes (especially environmental ones) not currently possible, such as a permanent flow in the Darling River.

## PROTECT AND ENHANCE NATURAL SYSTEMS

Strongly support this - the use of non-flow related measures, such as the control of pest species and the management of existing resources to better achieve desired outcomes, must be prioritised and fully explored in order to get the best possible results from what will be an increasingly valuable resource in future. We understand that the healthier our river and environment is, the better our farms, towns and communities perform over the long term. We also understand that we are most at risk of losing our access to water when the environment is not healthy.

We can't control droughts, but we can manage our resources better to preserve the things we want (healthy environment, resilient economy and positive culture) through the droughts.

## SUPPORTING WATER USE AND DELIVERY EFFICIENCY AND CONSERVATION.

We strongly support water efficiency measures, re-use and recycling projects and water market reviews if they are going to have a positive impact on deriving better outcomes from the existing resource.

## IMPROVING THE RECOGNITION OF ABORIGINAL PEOPLE'S WATER RIGHTS, INTERESTS AND ACCESS TO WATER.

It is still not clear to us what the recognition of Aboriginal people's water rights, actually means. We understand that they are seeking both economic water and cultural water.

'Economic water' we understand to be productive water which will be sourced from the existing water market.

'Cultural water' we understand to be water in the appropriate place at a time that coincides with cultural events on the river or lagoons, which seems to be about the management and timing of flows and not water ownership as such.

We have no issue with these proposals as we understand them, providing the rules under which water is managed is consistently applied.



## Vision

Now, despite the horrific situation in the Barwon-Darling throughout 2019, I am alarmed to find that the draft Border Rivers Regional Water Strategy proposes nothing that is clearly focused on improving environmental flows from the "end of system" into the river downstream. Why not? Because the draft Strategy's 'Vision' is too narrowly focused on a 'livable and prosperous Border Rivers region' as though not only ecosystems downstream but livability and prosperity in downstream communities still don't matter. The prosperity of some limited sections of the Border Rivers community, and of those irrigated agricultural companies that take profits elsewhere, has come at the expense of people and ecosystems downstream. Some reduction in prosperity of those who are taking the most water may be necessary although even greater emphasis on efficiency improvements or new thinking about how best to use limited available water can minimise economic impacts. Please change the vision, and the Strategy, so that it aims for healthy, resilient rivers in and downstream from the Border Rivers Regions through ecologically and socially sustainable water resource management. Drop the second sentence of the draft vision which gives a ridiculous expectation that it might be possible to manage water or infrastructure to have the "right" amount of water for everything all the time. The Strategy should instead help people throughout the region to accept and live with the increasingly high variability of inflows while reducing diversions so that all riverine ecosystems have a chance of surviving climate change.

One aspect of this should be removing some floodplain obstructions entirely e.g. so more water gets to Boobera Lagoon both from flows out of the Macintyre via the Whalan Creek and from Ottleys Creek.

Helping people reduce their demand for water should be a major focus of the strategy. This should include increased recycling, reuse and efficiency of use (options 26 and 27), plus reducing evaporation from on-farm storages (a missed option) notably those used for storage of flood water and high flows.



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## Floodplain Harvesting – A Historical Context

We consider it important that the committee understands the context of water management in the north of the state is necessarily quite different in some ways, to the rest of the state.

Historically, the development of irrigation industries in the northern basin occurred several decades later than the southern system and was done quite differently, for good reason. Where the southern system had a reliable 'snow-melt' and winter rainfall in the Snowy Mountains which suited large headwater storages and regulated systems, the northern valleys have summer-dominant rainfall which falls often in storm events on the plains, downstream of the headwater storages. It is also true that flooding was considered a major problem for these regions as it stopped access by cutting roads and caused a lot of damage in towns and to regional infrastructure, so flood mitigation was a major factor in thinking at the time. It is for this reason that when NSW governments were encouraging the development of irrigation industries in the 1970's and 80's, they promoted and even subsidised the building of large on-farm storages and made available for extraction water that occurred instream and across the floodplain from the episodic storms and other rainfall events that are typical of the northern basin. This created an irrigation industry without the NSW Government having to invest in large dams and irrigation schemes. Also, the irrigation industry was developed on private properties that were typically extensive sheep and cattle grazing or broadacre cereals, so were large acreages. In contrast, much of the southern systems were developed by government resuming the existing large holdings, subdividing them into small acreages and then building large-scale irrigation infrastructure to service these areas developed by government. The construction of the Murray and Murrumbidgee irrigation schemes were spectacularly successful in developing the inland of NSW and creating the desired increases in wealth over the previously less-productive land uses. They provided a much-needed injection of economic activity and export income into the state and national economy which was desperately needed in the post-war period. The NSW Government expanded the development of irrigation industries into the north of the state but did not have the motivation to replicate the Snowy Mountains Scheme, despite comparable project options being available, and still are today. While there were some small government-schemes built in the Border Rivers for tobacco growing, the state government encouraged the investment of farmer's own

Affiliates: Boomi-Gnoura Gnoura Water Users Association; Dumaresq Valley Irrigators Association; Eastern Recharge Groundwater Users Association; Lower Weir River Water Users Association; Macintyre Brook Irrigators Association; Macintyre Valley Cotton Growers Association; Mole & Sovereign Water Users Association; Mungindi Water Users & Cotton Growers Association; Pindari Water Users Association; Upper Weir River & Tributaries Water Users Association

capital into the development of irrigation infrastructure to facilitate regional development instead of the reliance on government money. This was also very successful as new industries became established and regional towns developed, expanded and bloomed, as had occurred in the southern valleys.

Another example of public/private partnerships is Pindari Dam. Originally constructed in the late 1960's by NSW Government, it was expanded to 10 times its original capacity in the mid-1990's through a partnership with NSW Border Rivers water-users. The NSW government financed and managed the project with the cost of the project being fully repaid by water-users alone over the next 20 years. Had the water-users not been willing to pay for it, the project would not have been done and the local community and state of NSW would not have enjoyed its benefit ever since.

As well as episodic rainfall, the Border Rivers is also occasionally prone to long periods of drought, so it became obvious that crops with a constant requirement for water were not suited for a region with such episodic water supply in large quantity, so the focus was on annual crops that could be grown when water was available. Subsequently, water management arrangements were created on this principle.

All water in the NSW Border Rivers was administered under the NSW Water Act 1912 until the Water Management Act 2000 came into being. Floodplain Harvesting was always an approved class of water extraction under the 1912 Act as it was extracting and storing water when it was at its most abundant for use when it was not. Its legal authority is based in the Part 2 and Part 8 Works Approvals. Under the 1912 Act it was not required to be licenced and the practice has continued to this day on that basis, while the licensing process has continued under the Floodplain Harvesting Policy since Minister Nathan Rees announced it in 2008. The licensing of Floodplain Harvesting will bring it under the Water Management Act 2000, requiring compliance with the principles of the National Water Initiative (NWI) which included that all water take is to be licenced, metered and accounted-for. The 2000 Act required the creation of Water Sharing Plans (WSP's) for the first time in each water source in the state. Initially, these Plans administered the highest priority water licences, High Security, General Security, Supplementary, Groundwater and Unregulated, as these were the most commonly used and had the greatest volumes. The first NSW Border Rivers Regulated River WSP was gazetted in 2008. Floodplain Harvesting was not included in the first Water Sharing Plans as it was recognised that it required a significant project to progress to licensing and this was not considered a priority by the NSW Government of the day.

When the Murray-Darling Basin Plan was first conceived in 2007, a key component for NSW was the licensing of Floodplain Harvesting. This was outlined in the Basin Plan with estimates of its volumes included in the Baseline Diversion Limits (BDL's), with the commitment being made to the NSW government and its stakeholders that the BDL numbers would be adjusted once a volume was established through the licensing process. The Commonwealth provided funding for NSW government to undertake the licensing process in the early Inter-Governmental Agreements that saw the states cede some of their water management responsibilities to the Commonwealth. Over that time we have continually sought, and received, assurances about Floodplain Harvesting as a continuing legitimate water source from NSW Ministers Macdonald, Koperberg, Costa, Rees, Humphries, Hodgkinson, Blair and Pavey as well as their senior bureaucrats. The same assurances were also sought and provided from Federal Ministers Turnbull, Wong, Burke, Joyce and Littleproud.

It is sometimes said that Floodplain Harvesting is "new" extraction which "will allow more water to be taken from the rivers". In fact, the practice has occurred since at least the 1960's in most valleys with the blessing and encouragement of the NSW state government. Whilst volumes have never been monitored historically, the purpose of licensing is that it requires that all take be metered and accounted-for and that all works are approved, making any "new" extractions illegal.

It is also incorrectly claimed that Floodplain Harvesting only occurs in the 5 northern NSW valleys where the licensing is occurring, which is also untrue. NSW DPIE acknowledge that Floodplain Harvesting occurs all over NSW but is most concentrated in northern NSW, so licensing is being prioritised there first. It is unclear when, or if, licensing requirements will extend to the rest of the state where it occurs.

It must also be understood that water sharing in the NSW Border Rivers is based on allowing access to a well-defined share of the water resource only when it is available. As mentioned above, the Border Rivers does not enjoy the luxury of large headwater storages to guarantee supply every year but have adapted to natural conditions. Also, the Border Rivers is subject to water sharing arrangements with Queensland under the Border Rivers Act 1946 and subsequent numerous Intergovernmental Agreements.

The licensing of Floodplain Harvesting should be completed as soon as possible to include one of the last pieces of the water management framework. The Basin Plan, for all its faults, is now an established process which will continue to determine in a robust, scientific way, whether extraction volumes (Sustainable Diversion Limits (SDL's)) are suitable. If reductions in SDL's are determined to



be required in future then there is an established recovery system also in place, funded by the Commonwealth, to address imbalances.

[REDACTED]  
[REDACTED]

From: [REDACTED]  
Sent: [REDACTED]  
To: [REDACTED]  
Subject: Your submission for Border Rivers Regional Water Strategy

1. Information on confidentiality and privacy

I give my permission for my submission to be publicly available on the NSW Department of Planning, Industry and Environment website.:

Yes

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

Yes

2. Your details

Email address:

[REDACTED]

Name:

[REDACTED]

Address:

[REDACTED]

Contact phone number:

[REDACTED]

Do you identify as an Aboriginal person?:

No

Are you an individual or representing an organisation?:

Organisation

3. Organisation or business details

Who do you represent?:

Other

If you selected Government, please clarify.:

If you selected Peak representative organisation, please clarify.:

Industry

4. Draft Regional Water Strategy objectives and vision Do you support this vision for the Border Rivers Regional Water Strategy? :

Yes

If no, please outline your vision for the long term management of water resources in this region?:

5. Information and modelling used to develop the Border Rivers Regional Water Strategy Do you have any comments about the information used to develop this strategy?:

We broadly agree with Government's information used & underline the importance of the Independent Panel's social & economic study.

We submit that the government's approach to the strategy is to achieve triple-bottom-line outcomes, so all information must be considered in context.

Please provide details if there is additional information you think we should consider?:

#### 6. Stochastic modelling method

Do you have any comments about the modelling method used to develop this strategy?:

It is vital that longer term climate periods are used to avoid over-weighting of recent drought periods on future projections. We are not experts, but the modelling method appears suitable for purpose required. We contend that this is beyond the understanding of most lay-people & hence is viewed as a 'black-box decision-making process & therefore beyond question.

Is there any additional information that you believe could help us assess the benefits and disadvantages of draft options?:

#### 7. Opportunities and challenges for water management in the Border Rivers region Do you have any comments on the opportunities, risks and challenges identified?:

We agree that the recent drought has placed water resources under stress & that this has triggered a strong response to future drought- preparedness. Nearly all items listed relate to drought. All water storages, including on-farm storages, improve the ability to better manage water resources were designed to do so. Future climate projections serve to underline the increasing importance of water storages for the benefit of all. Increased reliability of supply will support further horticultural development, but security can only result from increased storage capacity in an already fully allocated system. Security of supply for everybody will only come about with expanded storage capacity & inland diversions. The sharing of the resource means that some options are subject to getting interstate approval or renegotiating established agreements. This applies to surface water as well as groundwater.

Are there any additional opportunities, risks and challenges that we should consider and what options could address these?:

"Just add water" approach is simplistic & ignores the costs of reform to the state. There are many good complimentary measures that must be examined to increase the efficacy of environmental water in ephemeral systems. Risk of devaluing property rights of existing WAL's through ill-advised changes to rules. Government must commit to doing impact assessments on any changes proposed to productive water use. 'Simple changes' can have excessive costs to other stakeholders & any such changes must be fully investigated for their impacts as their may be compensation triggers as a result. Before considering any changes, existing water plans should be recognised & their embedded principles respected. Additional risk is a bad result from the construction of the Inland Rail, by the new banking diverting water from the main river across

the floodplain & away from its current path. It could also change flood flows so that more water is forced into QLD from NSW than already occurs.

#### 8. Draft Border Rivers Regional Water Strategy options

Which five (5) options do you think are most important?:

8. Inland diversions from the east 3. Raising Mungindi Weir 6. Reliable access to groundwater by towns 12. Cold water pollution mitigation measures 16. Providing incentives to landholders to conserve and rehabilitate riparian, wetland and floodplain vegetation

Please comment on why you think these options are most important? :

Security of supply is paramount for all stakeholders. Focus on potential new sources, better managing existing sources, protecting the high priority water uses like town water supplies & then ensuring the maximum possible environmental outcomes from the resources provided. Many other options have considerable merit as well, while many others need further explanation before any support can be provided. Existing plans prioritise critical human needs & environment already, this needs to be acknowledged up front.

Which five (5) options do you think are least important? (If any):

23. Improve connectivity - We acknowledge that 'downstream connectivity' is highly desirable and a key feature of existing water sharing arrangements, promises of 'improving waterway connectivity in the Barwon-Darling' in a changing, drying climate seems to indicate the desire to reallocate water from productive use, which in a fully allocated system is reallocation by stealth & without compensation, in contravention to Basin Plan principles & would be vigorously opposed. While the principle is important, to cite it as an option ignores that plans already prioritise downstream flows above productive extractions, so is duplication.

Please comment on why you think these options are least important? :

Anything that does not improve security of the resource or its management across the community must be given a lower priority, though they may have merit in their own right. Options that have multiple benefits to multiple stakeholders must be preferred.

Do you have any comments on the draft options?:

It is understandable that during drought thoughts turn to ensuring water security for the future. When droughts are on, no one has any water & desperate demands by some for other's water points to poor planning & preparation. The on & off drought in the Darling that has lasted for 20 years highlights that we live in a land of extremes & that we can do better in managing what we already have for greater benefit to NSW. Arbitrary demands to reallocate water from one user to another undermine value of existing measures & rules & ignores basic property rights.

#### 9. Option combinations

Do you have any thoughts on how the options could be combined with other options?:

There are many options that could be combined, but there is insufficient space here to describe them all. An example: A suitably designed weir at Mungindi could allow better management of Darling outcomes by releasing

'pulses' of water downstream which could wet benches, flood billabongs, etc far better than the same volume of water at a low release rate over many days. Such weirs could be replicated down the Darling, reusing the same water several times. By managing the hydrograph, outcomes can be improved without using any more water. Outcomes can be improved by piggy-backing on natural flows. The larger weir then provides greater security for town supply during drought & there is no extra cost of recovering water or reducing economic productivity. There is merit in extending programs involving Aboriginal people working on country in rehabilitation & riparian management. These have been successful in the Murray & other regions & should be extended to similar projects in the Border Rivers.

Are there additional options that we should consider?:

The density of stream gauges must be increased & existing gauges upgraded to improve frequency of reporting & spread of information of flows. There are many gaps in flow information that should be filled with an improved intelligence network. This could potentially be incorporated into the metering telemetry network & information shared in real time. This would enable better management & open up options of real-time trade in the future.

#### 10. Other comments

Do you have any other comments about the Border Rivers Regional Water Strategy?:

State water plans have existed in some form since 2008 & many significant reforms occurred in 2000. These reforms must be respected for the impact they had on reducing the viability of some irrigation dependent communities at the time & the promise that they would not be repeated now that strategies were in place.

#### 11. Referral

How did you hear about the public exhibition of this strategy?:

Department of Planning, Industry and Environment