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NSW Healthy Floodplains Project,
c/o Department of Planning, Industry and Environment,
Locked Bag 5022,
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To whom it may concern,

BARWON DARLING WATER SHARING RULES FOR FLOODPLAIN HARVESTING

I am writing on behalf of the Victorian Government to provide a submission on the draft floodplain harvesting amendments to the Barwon-Darling Water Sharing Plan. While the Victorian Government has a long history of voicing concerns about the sustainability of floodplain harvesting, we also recognise that this practice is an integral part of irrigated agriculture in the northern Basin, and we support your efforts to regulate, measure and limit floodplain harvesting. All forms of water take should be regulated, and overall levels of take must be within sustainable and legal levels.

Many Victorian water users and communities remain concerned with the practice of floodplain harvesting in NSW, and there is a lack of confidence that the proposed licensing policy will lead to better outcomes. These concerns about floodplain harvesting are voiced by irrigators, local governments and Traditional Owners. Stakeholders consider that allowing floodplain harvesting to continue will reduce inflows to the Southern Basin and the Menindee Lakes, leading to negative social, economic, environmental and cultural impacts for communities. Lack of trust in governments in general, as well as of the technical information supporting this policy will continue to impact confidence in Basin water management. It is important that trust continues to be built across the Basin.

Further evidence and more detail on the rationale and assumptions behind the proposed rules will help the Victorian Government and others downstream of the Barwon-Darling catchment to better understand this process to licence floodplain harvesting. Documenting how the proposed rules will protect downstream communities and environments from any impacts of floodplain harvesting will give stakeholders confidence that effective compliance and enforcement frameworks are in place.

The Victorian Government also would like to be assured that NSW's water take is and will remain in line with the legal sustainable diversion limits (SDLs) set by the Murray-Darling Basin Plan. Water Resource Plans will be used to report against SDL's in the future and documented assurance will be helpful for stakeholders in the short term. The Victorian Government would appreciate additional information on how floodplain harvesting will be managed in line with sustainable diversion limits (SDLs) without accredited WRPs.

I hope that NSW is successful in regulating floodplain harvesting as it is important that all states have sound water management frameworks underpinned by rigorous compliance systems for all types of take.

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OFFICIAL

If you would like more information about these matters, please contact Jessica Freame, Director Intergovernmental in the Department of Environment, Land, Water and Planning on [REDACTED] or [REDACTED]

Yours sincerely



Helen Vaughan
Deputy Secretary Water and Catchments Group

13/07/2022



AUSTRALIAN FLOODPLAIN ASSOCIATION

Healthy Rivers - Healthy Communities

Sarah Moles,
AFA secretary,
33 Mailmans Rd, North Branch, Qld 4370
[REDACTED], ph [REDACTED]

By email to: floodplain.harvesting@dpi.nsw.gov.au

8th July 2022

Response to Draft Barwon - Darling Water Sharing Plan

The Australian Floodplain Association takes this opportunity to repeat we cannot support any Water Sharing Plan, Water Resource Plan nor Regional Water Strategy that aims to lock-in unsustainable levels of additional floodplain harvesting take.

As a Peak Body comprised of floodplain and wetland landowners, indigenous groups, shire councils, local businesses and members of rural and remote communities dependent on healthy rivers, floodplains and wetlands, the AFA represents a far wider range of interests than the irrigation sector.

The fact that the NSW government refuses to comply with its own legislation and uphold the hierarchy of water management principles as set out in s5(3) of the NSW Water Management Act 2000 is infuriating. We are tired of repeatedly expressing our deep concerns about fundamental flaws and biases; and our views and well-formulated advice consistently being ignored in stakeholder “engagement” and “consultation” processes. We use those terms extremely loosely.

The NRC noted the Barwon-Darling River was approaching ecological collapse during recent intense and prolonged drought conditions. The volume for FPH in the Barwon Darling valley in the 2012 WSP was 16.5GL. The same figure was used for development of the MDB Plan. But the proposed new FPH entitlements are 51GL – more than 3 times the Plan volume. This is an outrageous and completely unacceptable claim.

Our members and others along the length of the river have been able to see this disaster coming for years. Extraction from the Barwon-Darling has breached the Sustainable Diversion Limit in 2019 and 2020 as well as breaching the MDB Cap.

We do not believe that new FPH licenses can possibly keep extraction below the Plan Limit,

The Australian Floodplain Association (AFA) 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.

We do not support the exemption for rainfall runoff – ALL water must be accounted for.

We categorically reject the proposed 500% carryover rule. This will cause loss of key flood flows for downstream wetlands, groundwater recharge, basic landholder rights, town water supplies and First Nations people's cultural values. However, we do support annual accounting with no carryover. The Barwon-Darling is a boom and bust system and such reliability for a single sector is unacceptable. So too is a Plan built on and that seeks to lock in a history of inequitable and unsustainable use.

There are no circumstances under which the AFA will support trading of FPH entitlements.

With regard to floodplain infrastructure, no new FPH works licenses should be granted until all unapproved and so-called 'hotspot' works are removed or modified to the satisfaction of the regulator. Further, the AFA opposes the licensing of works to take FPH in Zones A and D.

We also strongly oppose the licensing of natural lagoons or drought refugia to take FPH water.

Access rules are arguably our most pressing concern. Given DPIE's inability to apply meaningful targets backed by science, it is the most contentious. Again, we stress the need for NSW to comply with its own legislation and the hierarchy of water use principles. It is our understanding that sound recommendations from both OEH & DPIEW have been overruled by politics.

The AFA strongly objects to the proposed FPH access trigger of 195 GL in the Menindee Lakes Scheme. This figure is presented without any supporting evidence, and has been confirmed as storage held *across all lakes*. The reality is that this represents only 25GL of active water, a truly insulting trigger.

The proposed 195GL trigger also makes a mockery of the First Flush Rules. The figure of 30,000ML continuous flow at Bourke *inclusive of* Held Environmental Water is in itself a disappointing outcome.

In our view, 480GL *of active water* – as proposed by then Minister Pavey at a meeting in Menindee - is a more realistic starting point for negotiations. We find it extremely disappointing that the Government/Department has stepped away from this commitment.

Records show that from 1979-2002, the MLS volume remained above 195GL. From 2002 onwards, due to increased extraction upstream, drought and new operational policies / procedures the level has fallen below this threshold frequently - and increasingly often.

In December 2017 the MLS storage held 307GL of available water. A year later the first of several fishkills occurred.

The Australian Floodplain Association (AFA) 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.

It is beyond belief that DPIE could forget this. The Australian public certainly won't. We conclude that the ministers office chooses to ignore the facts. But we won't. We take the risks to the riverine ecology, local residents and local communities extremely seriously.

The community demands a realistic and appropriate target storage threshold for the Menindee Lakes Scheme based on science and recent history. It is our strong view that the long-term historical record will be increasingly irrelevant as climate extremes intensify. What is required are meaningful and measured strategies to ensure connectivity along the entire length of the Barwon-Darling and overall system health. We are weary of vague statements of intent while extraction is increased yet again.

This proposed trigger of 195GL offers no drought protection and will cause great social and ecological damage. The AFA endorses the view of the Wentworth Group of Concerned Scientists based on careful analysis of historic records, that an MLS trigger of 450GL of *active water* is required to ensure higher priority environmental and downstream needs can be reliably met. We also agree with their conclusion that additional, realistic triggers are required in upstream tributary Plans and must be enshrined in legally binding WRPs.

Furthermore, there should be no FPH access under resumption of flow rules. These need to be strengthened to protect higher end-of-system flows in the Barwon-Darling's NSW tributaries ie the Border Rivers, Gwydir, Namoi and Macquarie valleys.

Rules must also ensure Held Environmental Water from all the northern tributaries are protected from extraction.

The AFA also supports strong amendment provisions to enable FPH rule changes without triggering compensation. Irrigators were handed valuable windfalls in the form of property rights in water. Taxpayers should not have to stump up again when other water users face such inequitable access to it.

We reiterate our strong and consistently held view that to be Cap, SDL and Basin Plan compliant there can be no additional FPH licences and no increase in FPH take *anywhere* in the northern Basin.

We conclude by taking this opportunity to remind the NSW Government that from the late 1970's to the early 2000's it was, in our view, quite accurate to describe Queensland as the MDB's "cowboy state". Its water management utterly failed to reflect an equitable outcome for all stakeholders – including NSW water users.

It is without any doubt whatsoever that NSW now owns that title. Even the fish kills at Menindee, plus two damning reports that investigated that event, and the unprecedented recommendations on water management in NSW from Mr Ken Matthews have not changed the attitude of water managers - and we assume their political masters. In our view this represents a damning indictment of the state of water governance in NSW.

The Australian Floodplain Association (AFA) 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.

We are tired of the NSW Government's continual recalcitrance and refusal to act in the national interest. We demand water planning and management for all.

There is nothing confidential in our submission and we consent to any part of it being made public.

Yours sincerely,

A handwritten signature in black ink, consisting of stylized, overlapping loops and a horizontal line at the bottom.



7th July 2022

SUBMISSION

Proposed amendments to the Barwon-Darling unregulated water sharing plan

July 2022

Submission to:

Department of Planning and Environment – Water
barwondarlingunreg.wsp@dpie.nsw.gov.au

Submission from:

Barwon-Darling Water Inc
PO Box 573, Bourke NSW 2840



Barwon-Darling Water

Barwon-Darling Water Inc (BDW) is the peak body representing water users on the unregulated Barwon-Darling River.

Barwon-Darling Water is an independent, apolitical body, funded by its members.

It was set up to provide advice on the Barwon-Darling River to members and decision-makers, to assist with policy development, and to advocate on behalf of the interests of its members.

Our membership is made up of local water user groups – including local government, irrigators, and basic right users. We represent all licence holders and water users on the Barwon-Darling – from Mungindi on the Queensland border to the Menindee Lakes.

BDW members have been involved in the water reform process, especially in relation to the unregulated Barwon-Darling River, for many years. This work has included:

- Co-operating with other stakeholders to create a set of environmental flow rules for the Barwon-Darling (through the first Barwon-Darling River Management Committee).
- Assisting in development of the Barwon-Darling Cap Management Strategy of 2007.
- Representations on the development of the Barwon-Darling Water Sharing Plan 2012.
- Representation on the Barwon-Darling Customer Advisory Group of WaterNSW.
- Working with DPIE Water on development of the Floodplain Harvesting Strategy; and
- Working as part of the Stakeholder Advisory Panel on development of the Barwon-Darling Water sharing Plan and Barwon-Darling Water Resource Plan 2020.

We have also been involved in discussions regarding water reform in the northern basin and specifically on the Barwon-Darling River since the mid 1990's.

Barwon-Darling Water is a member of NSW Irrigators Council and the National Irrigators Council and has strong connections with other valley and industry groups including the Northern Irrigators Group and Cotton Australia.

Our members welcome the opportunity to comment on the “Proposed amendments to the Barwon-Darling unregulated water sharing plan.”

Introduction

Barwon-Darling Water recognises water sharing plans as the primary legal document for managing water access and sharing across New South Wales, including in the Barwon-Darling unregulated water source.

Our members have been active in past years in contributing to this framework on the Barwon-Darling River, particularly through the setting of environmental flow thresholds on the Barwon-Darling, the agreements reached on the Barwon-Darling Cap Strategy of 2006/07, the Barwon-Darling Water Sharing Plan of 2012 and the development of the Barwon-Darling Water Sharing Plan 2020 and Barwon-Darling Water Resource Plan.

Members of Barwon-Darling Water are very disappointed that several agreements and proposals under these plans have not yet been implemented.

This includes the very important recalibration of meters on the Barwon-Darling, along with the promised recalibration of the Barwon-Darling hydrology model. After 15 years of government inaction on this matter, Barwon-Darling water users are once again copping the odium of ill-founded findings that we are exceeding our SDL. The promised recalibration of the meters will resolve this SDL issue.

Ironically for those few people who understand the meter calibration and modelling issue, Barwon-Darling Water users we can never reach cap or SDL. In 2006/07, users on the Barwon-Darling were cut back to cap limits via their annual volumetric limit and clumsy trading rules have recently replaced effective trading rules from the original 2012 Barwon-Darling water sharing plan. To reach the limits of the productive pool of water in the Barwon-Darling, users would have to have perfect access and perfect trading. Neither are available to water users on the Barwon-Darling.

In this submission, Barwon-Darling Water is calling for a return to the sensible interim trading rules that were implemented in the original BD water sharing plan of 2012.

In its Western Regional Water Strategy, the NSW government says there is no intention to reduce SDLs under the Basin Plan. Unless the rules are changed to reflect the rules originally included in the 2012 Barwon-Darling Water Plan, this issue will continue to hamper and unnecessarily restrict water users on the Barwon-Darling

Our other major disappointment is the lack of action on rectifying the poor distribution of Individual Daily Extraction Components through the Barwon-Darling Water Sharing Plan 2020. Again, the Barwon-Darling Water Sharing Plan of 2012 had the distribution right and there were no problems. The redistribution under the 2020 plan was an exercise in poor implementation.

At the time, the members of Barwon-Darling Water recognised this and called for an anomalies process to deal with any difficulties caused by this distribution, but this suggestion was not accepted by DPIE.

Following are more detailed comments on each proposed amendment:

Allow for temporary dealings (trade) of individual daily extraction components

The DPE Fact sheet makes following statement:

When IDECs were introduced in 2020, the plan allowed permanent trade of daily flow shares under section 71Q of the Water Management Act 2000 (the Act). At that time, the plan noted the temporary trade of IDECs would be considered in future. This was to allow time to develop policies and systems that would ensure WaterNSW could implement such trades and that other water users and the environment would not be affected.

The first statement is incorrect, and unless we learn from the past, we cannot fix this problem in the present or the future.

The inclusion of IDECS, originally called Individual Daily Extractions Limits (IDELs), were agreed to by all stakeholders in the making of the Barwon Darling Water Sharing Plan 2012, and they were included in that plan. They were not implemented at the time, but it is wrong to say they were introduced in 2020. They were introduced in the 2012 plan under a slightly different name – introduced but not implemented.

IDECs should reflect the provisions of the original Barwon-Darling Water Sharing Plan which was agreed to be all stakeholders.

They also need to be implemented in a transparent way as intended by the plan (as outlined on page 54 of the “Background Document” to the original plan:

6.2.6.1 Establishing individual daily extraction limits in the Barwon-Darling:

In the Barwon-Darling Unregulated River water source, individual daily extraction limits (IDELs) are intended to provide a mechanism to limit extraction rates to those currently permitted through authorised pumps, thereby allowing a free and open trading regime whilst limiting:

- *third party, and*
- *environmental impacts.*

The administrative and management systems required to successfully implement IDELs are not currently in place, however it is expected that they will be in place within the first few years of this plan’s term.

6.2.6.1.1 Defining extraction rates of authorised pumps

WA 1912 licensed entitlements in the Barwon-Darling do not specify the pumping rates of the authorised pumps attached to the licence, rather their maximum size. Further, there are significant variations in the ‘true’ pumping rate of two identically sized pumps at different locations on the Barwon-Darling, primarily due to head differences (difference in elevation between the water surface and the pump discharge), but also the age and design of the respective pumps. Notwithstanding this, ‘average’ pump capacities are recorded for various sizes and types of pumps in the NSW Office of Water Licensing Administration System and these rates were historically used for assessing environmental impacts for new licence applications. Unique to the Barwon-Darling, all active metered pumps have an ‘agreed pumping rate’ with State Water Corporation as a consequence of time and event metering.

Within the water source, the number of installed pumps is less than the number of authorised pumps and so the IRP intended from the outset that individual daily extraction limits could be established within the Barwon-Darling in a manner which did not impinge on the rate of extraction from current pumps.*

* Please note that the intention from the outset was that: ***individual daily extraction limits could be established within the Barwon-Darling in a manner which did not impinge on the rate of extraction from current pumps.***

Temporary trading of IDECs was recommended by the Natural Resources Commission in its 2019 review of the plan, and by the ‘Claydon review’ of 2021, which assessed the initial implementation of the resumption of flow rule, IDECs and active management rules in the BD plan.

Licensees who were disadvantaged by having their IDECs drastically reduced, in an unintended way in the 2020 plan, and now have pump capacities larger than their IDECs, have requested that these anomalies be rectified.

One way to assist with this problem (but not completely solve the inequities caused by the 2020 redistribution of IDECs) is to allow temporary trade of IDECs. However temporary trade of IDECs is something that should have happened by now anyway and was always intended under the principles of the Water Management Act and Basin Plan principles.

Temporary trade may assist with this problem, but it will not address the current inequity and unfairness of the clumsy 2020 redistribution of IDECs which has had the effect of impinging on the rate of extraction of a select number of (mainly small) water users.

DPE must do its best to address the work health and safety risks that have been caused by the 2020 redistribution. These risks relate to some water users having to turn pumps on and off each day during an access event to ensure they do not exceed their IDECs.

Members of Barwon-Darling Water agree with this rule change, but we believe it does not go far enough. We have consistently called for an anomalies process to allow those people who have had their IDECs reduced below their established 2012 pumping capacity to put their case for an increased IDEC. There are not many of these and they are small water users.

An individual daily extraction component (IDEC) is the daily volume of water that may be extracted under an individual water access licence once WaterNSW has announced flow class access for that licence.

Under the original Barwon-Darling Water Sharing Plan 2012, these IDECs, or IDELs as they were called then, were distributed according to the pumping capacity of each water user.

During the SAP process leading to the new water sharing plan, DPIE explained at public forums that, back in 2012, it did not have the appetite or resources to implement IDELs as included in the 2012 Plan. This delay in implementation of IDELs/IDECs and subsequent trading without IDELs, created a problem for water users today.

These IDEC/IDELs were already agreed to by all stakeholders in the making of the original Barwon Darling Water Sharing Plan. They were also agreed on the basis that permanent and temporary trade of these IDECs would be available to water users.

Barwon-Darling Water agreed at that time that IDELs would be the daily volume of water that could be extracted under an individual water access licence, when pumping conditions were satisfied. The individual IDEL volumes were allocated to each water access licence according to an agreed daily pumping amount.

After failure to implement the original IDELs, DPIE in 2018-2020 had to establish how to distribute and implement the IDELs without creating inequity between licensees after trade

had taken place for the last 5 years of the original plan – without the accompanying trade of IDELs. The wrong lever was pulled by basing the IDELs on licence volume rather than pump capacity. This led to the problem of some licensees have IDECs more than historical use and some licensees have less than historical use – a gross inequity.

Our members support the proposed rules for temporary trade of IDECs as proposed today.

However, we do not think that this amendment goes far enough to solve the equity issues created by the clumsy redistribution of IDECs under the 2020 Barwon-Darling Water Sharing Plan – which has created unintended outcomes for water users along the Barwon-Darling.

Furthermore, there is no more rationale at all for trade restrictions on IDECs

The original IDELs anticipated free trade on a permanent and temporary basis, not restricted within river sections, consistent with Basin Plan principles and the principles of the NSW Water Management Act 2000.

Unless there are very good reasons for these anticipated restrictions, good reasons that are articulated and accepted by stakeholders, Barwon Darling Water supports the free trade of IDECs within the Barwon-Darling River system, on a permanent and temporary basis.

Basin Plan principles

Overlaying all this is the fact that DPE must have regard to certain principles, including the principles outlined in the Basin Plan and principles set by the NSW government for water resource planning.

Basin Plan principles state that in water resource planning:

- *There will be no adverse impacts on water available to a water access licence holder;*
- *and*
- *There will be no reduction in the protection of planned environmental water.*

The implementation of IDECs in 2020 had an unintended, direct, and measurable impact on water available on a daily basis to certain water access licence holders. This must be fixed.

The NSW Government principles for water resource planning also state that “*water resource plans will be cost neutral for NSW license holders*”

Barwon-Darling Water will not “negotiate away” the access rights of its members. We ask that the daily extraction right of all Barwon-Darling water access licence holders be restored, and that free temporary trade of IDECs be implemented at the earliest opportunity.

Amendment of access announcements

DPE is proposing to add a rule in clause 49A to allow access announcements to be amended by WaterNSW within 24 hours if there are inaccuracies between forecast and observed flows.

These situations occur in circumstances such as local rainfall events or when actual flows exceed modelled forecast flows.

Before the introduction of active management, licensees could respond to increases in flows at gauges when they were observed.

Under present arrangements, access announcements based on forecast flows, remain in place for 24 hours or longer. If greater flows than forecast are observed, then WaterNSW, under present plan rules, must wait 24 hours from the initial announcement before making the next announcement.

The change allows WaterNSW to announce increased access when more water than forecast is observed in the river because of local rainfall events or differences in predicted and actual travel time of flows.

Allowing access announcements to be amended means WaterNSW could account for differences between forecast and observed flows, while maintaining the transparency and integrity of active management. These announcements should be recorded using existing processes and made available to relevant agencies for compliance and reporting.

It is anticipated that, if more water is observed in the river than forecast, an amendment could be made to increase access without waiting for the next announcement. If less water than forecast is observed, corrections would still be made in the following day's announcement.

Barwon Darling Water agrees with this sensible proposal for the reasons outlined above, and because this small rule change may assist in water users on the Barwon-Darling reaching towards their unattainable SDL.

Flow class announcements when one of two reference gauges is not working

DPE is proposing to repeal and replace subclause 49A (5) to remove the requirement that currently applies in management zones that usually rely on flow thresholds at 2 reference gauges to determine flow class announcements.

The proposal is to use only one flow class threshold if actual flows cannot be observed at the second gauge.

This change reflects the current method used for determining announcements, which compares forecast flows to flow class thresholds.

Flow classes in 11 of the 14 Barwon–Darling management zones rely on flow thresholds at two gauges to determine if access is granted or not. When flows cannot be gauged at one of these locations because the gauge is not working or is flooded, the plan requires access for that flow class to be set using only the threshold at the functioning gauge.

If the downstream gauge is not working, the flow class access is granted based on forecast flows at the upstream gauge. This can result in access being permitted when there is not enough water across the entire zone.

The change is also proposed to allow the best data to be used for determining flow class announcements. The forecasting system continues to produce forecast flows at every gauge regardless of the availability of observed flows at those gauges.

This change would allow WaterNSW to use the best available data at multiple reference points to set flow class access in situations where one of two flow reference gauges is not working. If the most downstream of the two gauges is not working, this change will increase the likelihood that the flow event is in the whole management zone before access is granted, ensuring users only take water available for extraction.

Barwon Darling Water agrees with this proposal for the reasons outlined above.

Clarifying the relaxation of the resumption of flows rule

In 2020, a ‘resumption of flows’ rule was introduced in the Barwon–Darling water sharing plan (clause 50), to protect critical first flows after an extended low-flow or dry period.

The rule is activated when a flow arrives after a long period of dry or low-flow conditions. This is to prevent access to the first flow for a short period. Once required downstream flow targets are met, normal access conditions are reinstated.

DPE is proposing to amend the wording to clarify how the flow trigger at Bourke operates. This trigger turns off access restrictions when certain conditions have been met.

The proposed amendment will make it clear that the flow trigger of 30,000 megalitres passing along the Darling River at Bourke is a cumulative total flow. It will also clarify that flows start contributing to the 30,000Ml target from the start of the most recent low-flow or dry period, when flows have been less than 200Ml/day for more than 90 consecutive days at Wilcannia.

The proposed change is in response to the Claydon review, which recommends *‘being clearer about what constitutes an “event”, including its start and end conditions and dates’*.

Barwon Darling Water agrees with this proposal to clear up any misunderstanding about how the trigger works. The new wording should clarify key aspects of the trigger, and how the trigger is intended to be implemented.

Floodplain harvesting provisions

Floodplain harvesting has increased across the NSW northern basin, including in the Barwon-Darling unregulated water source.

In some cases, water diversions have increased above legal limits set under water sharing plans and the Basin Plan.

DPE intends to include floodplain harvesting provisions and regulations in the water sharing plan to regulate the practice of floodplain harvesting and to restrict growth in diversions.

The NSW Floodplain Harvesting Policy sets out the process for bringing floodplain harvesting into the water licensing framework. It involves creating new work approvals, licences, rules, and ways of measuring floodplain harvesting to ensure that harvesting take can be managed within the legal limits.

Account management rule of an account limit of 5Ml per unit share

DPE testing shows that annual accounting arrangements are likely to result in future growth that would require a response action, such as reduced allocations.

Also, future changes to development, behaviour or trade could lead to an increase in the use of these entitlements that would drive growth.

For these reasons, Barwon-Darling Water supports the proposed 5-year accounting arrangements for floodplain harvesting (unregulated river) access licences in the Barwon-Darling Unregulated River Water Source.

This accounting period also matches the frequency of accessing floodplain harvesting water while controlling growth, delivering environmental outcomes, and providing flexibility to licence holders.

Available water determinations

In many other circumstances, an available water determination greater than 1 Ml per unit share has been applied to access licences in the first year of a water sharing plan.

This ensures the volume of water in water accounts reflects the potential amount of carry over that would have been permitted under the WMA, or use of long-term averages in the determination of the access licence entitlement.

With these things in mind, Barwon-Darling Water believes that the initial available water determination should be greater than 1Ml per unit share in line with historical practice.

For most NSW licence categories, an available water determination of 1Ml per unit share is specified for each year after the first water year. For some licence categories, such as regulated river (general security) access licences, an available water determination of greater than 1Ml per unit share is permitted if there is sufficient water available.

Barwon-Darling Water supports the proposed available water determination rules for floodplain harvesting (unregulated river) access licences in the Barwon-Darling Unregulated River Water Source is 1Ml per unit share every year after the first year but believes the initialization volume should be greater.

Permanent trade

Permanent trade rules are included in water sharing plans to protect sensitive areas from extraction that may occur because of entitlements concentrating in a specific location.

Schedule 3 of the Basin Plan 2012 recommends free trade of surface water except where a restriction is required due to a physical constraint, lack of connectivity, or the environment may be harmed. Trading restrictions must be justified to the MDBA.

While free trade is desirable, the Barwon-Darling may be impacted by trade that results in an upstream concentration of entitlement. Trading within river sections may prevent this concentration of entitlement and may protect areas that rely on flood flow connectivity or contain identified environmental or cultural assets.

DPE proposes to set rules to restrict the permanent trade of floodplain harvesting licences that reflect existing trade rules for unregulated river access licences.

This involves replicating the four river sections that currently exist in the Water Sharing Plan for the Barwon-Darling Unregulated River Water Source 2012 and restricting trade between those sections.

The proposed trading zones will ensure that floodplain harvesting (unregulated river) access licences only take water within the Barwon-Darling Valley floodplain, consistent with the NSW Floodplain Harvesting Policy and licence determination process.

Barwon-Darling Water supports these proposals for permanent trade of floodplain entitlements on the Barwon-Darling.

Access rules

In the Water Sharing Plan for the Barwon-Darling, there are access rules govern unregulated river water access licences, mainly through cease and commence to pump rules based on river gauge data and volumetric limits on access licences.

Access rules for the Barwon-Darling unregulated water source are designed to protect flows to maintain and improve environmental values.

These access rules are not appropriate for floodplain harvesting licences as they are attempting to manage very different flows.

However, to acknowledge connectivity between the Barwon-Darling and the northern inland tributary valleys, and ensure flows are temporarily protected from floodplain harvesting during and following extreme dry periods, DPE proposes new access rules for floodplain harvesting access licences in the northern basin.

These include proposed access rules for floodplain harvesting (unregulated river) access licences in the Barwon-Darling as follows:

1. Water cannot be taken when there is less than 195 GL stored in the Menindee Lakes system unless a continuous flow of at least 4,000 ML is forecast to occur in the Darling River at the Wilcannia gauge, and
2. FPH access licences in the Barwon-Darling will be restricted when 'resumption-of-flow' rules are in effect.

Barwon-Darling Water does not agree that the 195GL target, or any Menindee target is needed as water is usually plentiful when floodplain harvesting is occurring in the Barwon-Darling.

However, we see no issue with restricting Barwon-Darling FPH access licences when 'resumption-of-flow' rules are in effect. These rules were adopted after the 2020 SAP process.

Barwon-Darling Water appreciates the opportunity to comments on these proposed amendments, and we will be happy to expand on the issues we have addressed in this submission.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Ian Robinson', with a stylized, flowing script.

On behalf of Joe Robinson, Chairman of Barwon-Darling Water Inc

Proposed amendment of the Barwon-Darling water sharing plan, including proposed rules for floodplain harvesting

Submission form

Office use only	Submission number
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How to fill out this form

Section A – General amendments

In section A, the department is seeking stakeholder views on amending the *Water Sharing Plan for the Barwon-Darling Unregulated River Water Source 2012*.

A supporting factsheet (*Proposed amendments to the Barwon Darling unregulated water sharing plan*) provides an overview of the proposed changes. The fact sheet is available on the department's website at dpie.nsw.gov.au/barwon-darling-wsp.

Section B – Floodplain harvesting amendments

In section B, the department is seeking feedback on rules for floodplain harvesting access licences in the Barwon-Darling.

A report to assist community consultation (*Barwon – Darling: Floodplain harvesting in water sharing plans*) provides information on the proposed rules for floodplain harvesting and explains the interaction between those rules, modelling and anticipated downstream outcomes once implemented.

More information on the proposed water sharing plan amendments and on floodplain harvesting rules in the Barwon-Darling is available via the [Water Management in Far West NSW webpage](#).

Complete online or send this completed submission form to:

Post: Barwon-Darling Water Sharing Plan amendments
Department of Planning and Environment Water
209 Cobra St, Dubbo NSW 2830

Email: barwondarlingunreg.wsp@dpie.nsw.gov.au

If you complete your submission online, we will send a copy of your submission to your email address after you have submitted the form.

Note: Submissions close midnight Friday 8 July 2022

Information on privacy and confidentiality

All submissions received by NSW Department of Planning and Environment will be reviewed and published. The department values your input and accepts that information you provide may be private and personal.

If you would prefer your personal details and identifying information, to be treated as confidential, please tick the relevant box below.

If you don't request that your personal details be treated as confidential, when publishing your submission the department will include your name and any personal details you provide.

Please note that, regardless of a request for confidentiality, the department may be required by law to release copies of submissions to third parties in accordance with the *Government Information (Public Access) Act 2009*.

Personal details	
I would like my name and personal details to be treated as confidential.	☐ Yes ☒ No
Name	Hilton Taylor
Postal Address	
	Department of Climate Change, Energy, Environment and Water GPO Box 858 Canberra City ACT 2601
Telephone	
Email address	

Submission details		
Who are you representing?	☐ Myself (individual) ☒ An organisation (name): Commonwealth Environmental Water Office	
Which stakeholder group best describes you? (Please tick one box)	☐ Community member ☐ Irrigation ☐ First Nations ☐ Environment ☐ Fishing ☐ Local landholder	☐ Local Govt./ Utilities ☐ NSW Government ☐ Other State Government (specify): ☒ Commonwealth ☐ Other (specify):

Submission details		
Do you undertake floodplain harvesting	☐ Yes ☒ No	
Where are you located?	☒ Northern inland ☒ Southern inland	☐ Coastal ☐ Other (please specify)
If you are a water user in the Barwon-Darling Unregulated River Water Source, what management zone are you located in?	☐ Mungindi to Boomi River Confluence ☒ Boomi River Confluence to Upstream Mogil Mogil Weir Pool ☐ Mogil Mogil Weir Pool ☒ Downstream Mogil Mogil to Collarenebri ☐ Collarenebri to Upstream Walgett Weir Pool ☐ Walgett Weir Pool ☐ Downstream Walgett to Boorooma	☒ Boorooma to Brewarrina ☐ Brewarrina to Culgoa River Junction ☐ Culgoa River Junction to Bourke ☒ Bourke to Louth ☐ Louth to Tilpa ☐ Tilpa to Wilcannia ☐ Wilcannia to Upstream Lake Wetherell
Have you attended a webinar or face-to-face meeting as part of this consultation?	☐ Public webinar ☐ Public face-to-face session	☐ One-on-one or industry meeting ☒ none of these

Proposed changes to the Barwon-Darling water sharing plan

A number of changes have been proposed for the amended 2022 plan. Key drivers for the proposed changes include:

- implementation of the NSW Floodplain Harvesting Policy
- the Natural Resources Commission's review recommendations
- contemporary water resource policy – some changes to the plan include alignment with current policy to help improve efficiency and consistency in achieving water resource management objectives across the state
- reviews of the operation of active management and the resumption of flows (first flush) rule
- updated data and knowledge improvements.

Changes are proposed to:

- include floodplain harvesting provisions to enable licensing and regulation of floodplain harvesting in the plan area
- establish rules for temporary trade of Individual Daily Extraction Components (IDECs) within river sections
- allow access announcements to be amended within 24 hours - for example, when there is more water in the river than forecast due to unforeseen circumstances like local rainfall events
- allow forecast flow data at both reference gauges to be used to make flow class announcements when one of those gauges is not working
- clarify the operation of the cumulative flow trigger that relaxes the resumption of flows rule
- remove redundant clauses and notes, update superseded contact information and update standard clause wording to be consistent with recent changes to other water sharing plans.

Section A: General amendments

You may respond to any (or all) of the questions in Section A.

A1 – Do you support the proposed rules for temporary trade of Individual Daily Extraction Components (IDECs) within river sections as proposed?

Yes ☒ No ☐

A1.1 – Please provide a reason for your support/opposition.

Reason:

Market based instruments are important in managing the portfolio of Commonwealth environmental water entitlements. The CEWH sees value in using markets, once established, to temporarily trade water access rights. Temporary trading of IDECs could be a way to optimise environmental outcomes and opportunities for consumptive users.

However, the implementation of temporary trade of IDECs requires careful consideration. The process of permanently trading IDECs takes time, and considering the travel time of flows within a specific river section it is unlikely to occur in a timely manner to optimise extraction for an individual event. This is particularly true for protection for environmental outcomes where flows must meet or exceed prescribed rates and volumes within a given time with decisions made on a short timeframe.

Temporary trade, if processed in a timely manner, could see IDECs being used at the top of a river section, and then once extraction is no longer possible at that location, traded lower down in the section to another location where the event extraction opportunity is then occurring. The same IDEC would therefore contribute to more than one opportunity to extract from the same event, leading to reduced flows to the next river section. Therefore, temporary trade may lead to greater extraction than is currently possible. One solution to mitigate this issue may be to apply additional limitations to temporary trade beyond that of permanent trade limitations, taking into account the long travel times in the 4 river sections. Clustering reaches to within a day or two average travel time (when the river is flowing at A-C class threshold levels) may add complexity, but improve outcomes. Another option may be to impose an event-based limit, whereby an IDEC that has been used to extract during an event (or within X days) can not be temporary traded to extract from the same event. It is recommended that NSW consider the impacts to downstream river sections that temporary trade would likely lead to, and outline mitigation strategies such as those described above that would maintain flows along the length of the system.

A2 – Do you support the proposed rule to allow access announcements to be amended within 24 hours – for example, when there is more water in the river than forecast due to unforeseen circumstances like local rainfall events?

Yes ☒ No ☐

A2.1 – Please provide a reason for your support/opposition.

Reason:

Water management decisions should be fair, consistent and based on best available information. Flow forecasting used in decisions is at best an estimate, and is required to strike a balance between timeliness and accuracy. Improvements in flow forecasting methodologies and their use provide operators and water users alike with better business decision making information. The CEWH supports systems that result in licence holders being able to access the water they are entitled to in as timely a manner as is possible with best information at hand. If better information on available water emerges for river operators, they should be able to adjust access announcements in a timely fashion to allow licence holders to adjust their behaviour, provided it does not result in an overall reduction of rightful access to other licence holders or planned environmental water.

Comparisons between access provided which is based on forecasting, and actual available volumes once observed flow data is available should continue to be reported publicly as described in the active management procedure manuals. Forecasting and access announcement volumes should be analysed to determine where the distribution of water is most inaccurate compared to full hindsight, and efforts towards continuous improvement pursued.

A3 – Do you support the proposed changes to allow forecast flow data at both reference gauges to be used to make flow class announcements when one of those gauges is not working?

Yes ☒ No ☐

A3.1 – Please provide a reason for your support/opposition.

Reason:

The CEWO supports any effort to ensure that flow class announcements are based on the best publicly available information. It is noted that commence-to-pump thresholds and available volumes for a given reach are defined in the Barwon-Darling WSP using both an upstream and downstream reference gauge. The water sharing plan in cases where flow gauge data becomes unavailable does not consider that access announcements are to be made based on forecast data from WaterNSW forecasting systems. Provided other additional upstream flow data and the forecasting model are available and operational, the forecasting system would continue to predict access more accurately than a single observed flow gauge.

A4 – Do you support the proposed wording changes to clarify how the cumulative flow trigger that relaxes the resumption of flows rule works?

Yes ☒ No ☐

A4.1 – Please provide a reason for your support/opposition.

Reason:

The revised wording provides clarity for both water users and compliance processes.

A5 – Do you have any general comments on the proposed changes to the plan? (See Section B if you have comments about the proposed rules for Floodplain Harvesting)

General comments

Thank you. Please add additional pages if required.

Section B – Floodplain harvesting amendments

These questions relate only to floodplain harvesting.

You may respond to any (or all) of the questions in Section B.

B1 – Do you support the proposed account management rule of an account limit of 5 ML per unit share?

Yes ☐ No ☐

B1.1 – Please provide a reason for your support/opposition.

Reason:

The Commonwealth Environmental Water Holder has previously made submissions on floodplain harvesting, the most recent to NSW's Select Committee Inquiry into floodplain harvesting, which sets out our position. These submissions can be found on our website under the publications tab: <https://www.dcceew.gov.au/water/cewo/publications>. It will be critical the NSW government demonstrates in practical terms, perhaps using case studies, how floodplain harvesting will be rigorously measured and monitored to allow effective compliance activities. The CEWO is aware of the compliance challenges of this form of take, which highlights the importance of integrating floodplain harvesting regulation with other rules to protect downstream outcomes.

B2 – Do you support the proposed initial available determination of 1 ML per unit share?

Yes ☐ No ☐

B2.1 – Please provide a reason for your support/opposition.

Reason:

B3 – Do you support the proposed ongoing available water determination of 1 ML per unit share?

Yes ☐ No ☐

B3.1 – Please provide a reason for your support/opposition.

Reason:

B4 – Do you support the proposed trade rules?

Yes ☐ No ☐

B4.1 – Please provide a reason for your support/opposition.

Reason:

The proposed trade rules would be supported by the CEWO if it can be demonstrated that they do not result in negative impacts on connecting (lateral and longitudinal) and low flows.

B5 – Do you support the proposed rules for the granting or amending of water supply works nominated by a floodplain harvesting (unregulated river) access licence?

Yes ☐ No ☐

B5.1 – Please a reason for your support/opposition.

Reason:

The potential negative impacts to downstream connectivity would need to be considered in the granting of any approvals, and that it is possible to remove unapproved infrastructure that impedes the movement of flows over a floodplain.

B6 – Do you support the proposed access rule for resumption of flows to be applied to floodplain harvesting (unregulated river) access licences?

Yes ☒ No ☐

B6.1 – Please provide a reason for your support/opposition.

Improving active management of flows to protect planned and held environmental water is strong progress towards achieving commitments under the Basin Plan.

Reason:

B7 – Do you support the proposed access rule to restrict take under floodplain harvesting (unregulated river) access licences when there is less than 195 GL in the Menindee Lakes system until a continuous flow volume of at least 4,000 ML is forecast to occur in the Darling River at the Wilcannia gauge?

Yes ☐ No ☐

B7.1 – Please provide a reason for your support/opposition.

Reason:

The CEWO supports an access rule to restrict take under floodplain harvesting. However, this type of rule would also need to account for connectivity in the Lower Darling. Thus, further work and transparency regarding the storage target is required.

Please refer to the CEWO submission on the draft Western Regional Watering Strategy for further suggestions.

B8 – Do you support the proposed amendment provisions?

Yes ☐ No ☐

B8.1 – Please provide a reason for your support/opposition.

Reason:

Thank you. Please add additional pages if required.

5th July 2022

Submission on Proposed Amendments to the Barwon-Darling Unregulated Water Sharing Plan

Submission by Mervyn John Gordon- Barwon-darling Water Access Licence Holder

1.1 Proposed Change to Allow Temporary Trade of IDEC's

Given the now well published negative impacts IDEC's have had on the Barwon-Darling Valley, I am adamant the direction now tabled by the department will impose further cost on small licence holders (like myself), and benefit those with large share components.

As visible in my IDEC submission to NSW Water late last year, I tabled the example how pump flow rate and small IDEC volume combined to restrict my current B class water access licence on West Mooculta. My IDEC was exceeded as soon as the river flowed at a rate higher than 6 metres on the Bourke gauge. For example, on the 8th of May 2021, the 400 mm licensed pump on West Mooculta was metering 34 megalites per day, however my IDEC for that licenced work was 24.7 megalitres.

This 30% difference in pump capacity verses IDEC created the environment where I had to decide not to grow and/or irrigate a crop, as I would have been in breach of my licence conditions. In essence, IDEC water policy had now restricted my business operation to the point I could not make sensible and profitable cropping choices, backed with sound irrigation practices. I consider it extremely unfair that the Departments answer to this problem, is imposing a further cost on the impacted licence holder by asking them to approach the open water market, to purchase IDEC shares, for a value that is unknown before the trading mechanism is introduced. If the problem of an insufficient IDEC is already killing business income, where does the department think the revenue will come from for small licence holders to purchase more IDEC Shares?

As with all policy change on the Barwon-Darling, there is lived experience that no financial safety-net is put into place before these trading options are written into law. As witnessed with the Clause 42 amendment impacts, what compensation mechanism does the NSW Water minister, and his water department, have in place to protect those licence holders impacted by IDEC policy, even before the temporary trading amendment is accepted in law?

2.1 Floodplain Harvesting Provisions

It is my considered opinion, that floodplain harvesting licensing needs to be off the table until the Barwon-Darling model is recalibrated with up-to-date metering data. I understand, and accept, that some data has been collected from the 2020 flow event, and that the total diversion limit remains unchanged, however, I believe the licencing volumes need to be made public, and robustly backed up by policy planners, in order to avoid the public prosecutions as witnessed with the creation of the 2012 Water Sharing Plan.

In publishing the fact, some 20,000 megalitres are to be issued in NEW licensing on Barwon-Darling Floodplain, the perfect storm will be created amongst a river community whose memory of a dying river in 2019 is very raw. The very fact that 100,000 megs can be extracted in a single water year needs to be explained further in an open public forum. I for one, was encouraged to believe by policy creators, that the water recovered under the Barwon-Darling Cap management Strategy in 2006 had no room left for one megalitre, let alone twenty thousand FPH Cap shares.

3.1 Other Planned Changes-New Rule to Trade Water Account

I have made many representations outlining the impacts that the original amendment of clause 42 had on my business, and my businesses survival in the Bourke community. After enduring 6 years without Barwon-Darling trade policy frameworks after the 2006 Cap Management Strategy was introduced, I have had to suffer under the unnecessary weight of unpublished water policy amendments in 2018. The lack of policy thought, and its continued failed attempts to correct its severe impacts, has created the perfect example of poor water policy governance, and its impact on Barwon-Darling licence holders.

The very fact, no DPIE-Water policy planning staff at the Bourke community consultation meeting in Bourke, 30th of June 2022, could explain why the original amendment occurred in 2018, and what problem it was fixing, spoke volumes of the neglect to this issue. Alarming, there were two DPIE-Water personnel attending that meeting that actually developed and introduced the original 2012 Barwon-Darling water Sharing Plan. Neither made comment.

Unfortunately, the changes made in the *DRAFT* policy documents presented at the Bourke community consultation meeting, contained a number of errors in regard to my water license. When these errors were brought to the attention of Water NSW staff, I was promptly advised that the *DRAFT* document was in-fact only minutes away from being signed off on by the Environment Minister.

It is my firm belief that this issue needs to be reverted back to the original interim trading rules for the Barwon-Darling. The very same policy rules that were accepted in the creation of the 2012 Barwon-Darling Water Sharing Plan, and practices successfully up until the 2018 amendment was enforced.

The Productivity Commission Inquiry Report into National Water Reform (No.96, May 2021) made it known very clearly that, "Markets provide short-term access to water, enhancing water users' capacity to manage through drought and weather shocks". This is the very marketing strategy my family was not afforded in 2018, when the NSW Water Minister saw fit, to introduce NEW water policy that not only restricted the water market in my river section, but the amount I could trade.

I will be making separate representation to DPIE-Water policy planners in conjunction with this submission on the Clause 42 issue.

Yours sincerely,

Mervyn John Gordon



PO Box 1254 Deniliquin NSW 2710
www.southernriverinairrigators.com.au

Peak body representing 2200 landholdings, annually producing \$6 billion in agricultural product and supporting 25,000 jobs in the Murray Valley.

Barwon-Darling floodplain harvesting submission.

Introduction

Thank you for the opportunity to make a submission although we seem to find ourselves in this position regularly, which should be a red flag to indicate there is something drastically wrong with the floodplain harvesting licensing process.

Southern Riverina Irrigators (**SRI**) are a peak irrigation advocacy group representing 2,200 landholdings in the Southern Riverina of NSW.

The southern riverina region contributes around \$24 billion annually to the Australian economy through agricultural production such as rice, wheat, corn, dairy, beef, fruit, nuts, wine and cotton, directly supporting thousands of jobs, regional communities, and the environment.

In addition to the direct economic benefit, there are substantial value adding industries, such as food manufacture, processing plants, and abattoirs.

The viability of our entire region, our communities, our business and our environment is directly reliant on reliability of water.

It underpins the nations economy and protects our staple food production in a problematic and unsettled global climate.

Licensing of floodplain harvesting across all NSW valleys must be sustainable and while we support licensing, it must be at the legislated legal limit and not some distorted volume that contravenes the very legislation put in place to protect the Murray-Darling Basin.

Floodplain harvesting

Despite the 1995 agreement by Governments to implement the Murray-Darling Basin Cap, and subsequent other intergovernmental commitments, such as the National Water Initiative and the Basin Plan, floodplain harvesting has been allowed to grow unabated in NSW.

The ability to extract water via floodplain harvesting is strongly correlated to on-farm storage capacity. SRI commissioned a satellite imaging project showing on-farm storages in the five northern NSW valleys have grown from 600 GL in 1994 to over 1,400 GL today.

It is a hydrological reality that increased extraction upstream reduces flows downstream.

NSW and Victoria share a commitment under the Murray-Darling Basin Agreement to deliver 1,850 GL to South Australia annually, except in very dry years. The Murray-Darling Basin Commission undertook research in 2000, stating the northern Basin contributed an annual average of 39 per cent of the South Australian entitlement. The Murray-Darling Basin Authority reported this statistic in its preparation of the Basin Plan.

This century, the northern basin has only contributed to the South Australian entitlement five years out of 21.

This impacts Murray General Security users by:

- a declining contribution from the Northern Basin means the NSW obligation to South Australia is met out of the Murray river, and
- increased conveyance losses in the Murray, as the South Australian entitlement is delivered from Hume Dam, rather than Menindee Lakes.

The average annual allocation to Murray General Security has dropped from 84 per cent to 52 per cent over the last two decades.

The NSW and Commonwealth Governments claim inflows into the Murray system have halved this century and impacts of floodplain harvesting on the Murray system are negligible.

The Governments attribute the decline in inflows to climate change which makes proposed volumes above Cap even more ridiculous.

Proposed FPH licence volumes will exceed legal limits

The NSW Department of Planning, Industry and Environment (**DPIE**) propose to issue approximately 346GL of floodplain harvesting licences. The proposed volumes and accounting rules for floodplain harvesting, will exceed the legal limits in the:

1. *Water Act 2007* (Cth); and
2. *Basin Plan 2012* (Cth).

FPH will exceed legal limits in the *Water Act 2007*

In 1995, governments agreed to limit extractions to the 1994 level of development including infrastructure (such as on-farm storages) and rules. This is the Murray Darling Basin Cap (the **Cap**) and is defined in the *Water Act 2007* (Cth) at Schedule 1 (the Murray Darling Basin Agreement). NSW are legally bound to ensure total extractions are lower than the Cap or the limits set in the water sharing plans.

The proposed volumes and accounting rules for floodplain harvesting will require a commensurate reduction of other forms of take for NSW to remain within the Cap limits mandated by the *Water Act 2007* (Cth) and *Water Management Act 2000* (NSW).

FPH licences will exceed legal limits in the *Basin Plan 2012*

The limits for water extractions under the *Basin Plan 2012* (Cth) are calculated by the baseline diversion limit less water recovery. The total amount of floodplain harvesting in the baseline diversion limits for the Northern NSW valleys is 46 GL.

The proposed volumes and accounting rules for floodplain harvesting will require a commensurate reduction of other forms of take for NSW to remain within the Basin Plan limit.

Barwon-Darling Floodplain Harvesting (FPH) Rules

The 2012 Barwon-Darling Water Sharing Plan attributed 16.5 GL to FPH extraction and was used in the development of the Murray-Darling Basin Plan. The proposed new entitlements exceed this volume and have breached the Basin Plan Sustainable Diversion Limit in 2019 and 2020. The volume of FPH to be licensed is estimated to be 51.32 GL as identified in the Community Assistance Report. This differs greatly from the figures used in the modelled scenarios. Every other southern basin irrigator is licensed and metered and operates within the Cap, why is the Barwon-Darling offered different treatment and special numbers? Historical use should not form the basis of the licensed volume when the historical use is illegal. No other licensed and metered irrigator in the southern basin can access an annual carryover of their licensed volume so why should the Barwon-Darling?

1. A 500 per cent carryover will result in a reduction of downstream flows impacting environmental assets, the community and town water supply.
2. This is an unregulated system and with no end of system flows targets proposed to protect connectivity there should be no carryover. A key principle of the basin plan is a connected river system and anything proposed that prevents this from happening goes against the whole premise of the plan.
3. As an unregulated system reliant on storage and storage capacities, licenses must stay with the property and not be tradable on the open market. Our concern

remains other works won't be de-commissioned and there is no system in place to remove them which will ultimately lead to an increase in FPH take.

4. Based on the unreliable nature of licensing FPH must not be compensable.
5. No works in Floodplain Management Plan Zone A and D should be licensed for FPH nor should any lagoons or natural drought refugia.
6. No FPH works licenses should be granted until all unapproved and floodplain 'hotspot' works are removed or modified.
7. Support no access under resumption of flow rules – these must be stronger to protect higher end-of-system flows in Barwon-Darling tributaries: Border Rivers, Gwydir, Namoi, Macquarie
8. Strongly object to no FPH access target of below 195 GL in Menindee Lakes until forecast of at least 4,000 ML at Wilcannia. This offers no drought protection and will cause ecological damage. A target of 450 GL in Menindee is needed with higher forecast upstream flows.

Rules must protect held environmental water inflows from Queensland and NSW northern tributaries.

Inequity of water reforms

Allowing floodplain harvesting to grow was identified as an unresolved pre-existing equity issue when the Murray Darling Basin Ministerial Council reviewed the operations of the Cap in 2000. This inequity has been allowed to grow. Rather than remedy the inequity, the proposed harvesting volumes and accounting rules will entrench it.

This inequity results from:

1. Northern NSW valleys not limited to the Cap;
2. Free access to water in Northern NSW valleys; and
3. Volumes of water recovery.

Summary

SRI support a licensing structure for FPH, it just must be applied under the same rules every other irrigator must abide by, it is illegal to contravene these rules.

- All water extracted from regulated rivers incurs fees and charges while water extracted through floodplain harvesting is free, subsidising those landholders and creating an unfair advantage compounding over the decades.
- Of the water recovered under the basin plan, 85 per cent has been sourced from the Southern Basin and these communities have borne the brunt of negative impacts.
- It is completely against the spirit of the *Water Act 2007* (Cth) to issue floodplain harvesting volumes which ultimately offset water recovery.

Joint Submission on proposed amendments to the *Water Sharing Plan for the Barwon-Darling Unregulated River Water Source 2012*

By

R. Quentin Grafton*
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*: authorship is alphabetical



8 July 2022

Foreword

Please accept our joint submission with respect to the *Water Sharing Plan for the Barwon-Darling Unregulated River Water Source 2012*. This joint submission is in three key parts:

- (1) **Critical need for reduced water extractions particularly from various forms of floodplain harvesting** to halt further reductions in stream flows, as measured by flows in the Lower Darling (Baaka) River. Further, it is critical that each of the Water Sharing Plans for the connected tributaries of the Barwon-Darling and Lower Darling rivers be comprehensively integrated in terms of water flow requirements for the whole river system (provided by R. Quentin Grafton and John Williams);
- (2) **Need to fully incorporate water quality requirements within the water sharing plan** (provided by Paul Wyrwoll); and
- (3) **Seven recommended amendments to the water sharing plan** in relation to: cultural water allocations, low security licensing, trigger targets, and system connectivity (provided by Daniel Schulz).

1. Water Extractions and Stream Flows (prepared by R. Quentin Grafton and John Williams)

Water diverted for floodplain harvesting along the Barwon-Darling and its tributaries is currently largely unregulated, poorly documented, and not properly recorded, but the annual average diversions have been estimated at between 632 and 926 billion litres (GL) in NSW (Brown et al., 2022). According to Brown et al. (2022), storage capacity rose from 557 GL in 1993–94; to 1 1,393 GL in 2019–20. By comparison, *recorded* annual water extractions averaged 862 billion litres over the period 2004–5 to 2019–20 in northern NSW MDB (and are in the order of 1,700 billion litres in total from all tributaries (Grafton et al., 2022)).

Large water extractions for irrigation along the Darling River, primarily in its upper catchment and its tributaries, contributed to the 1991 blue–green algal bloom that stretched for over 1,000 km (Bowling et al. 1996), and also to declines in abundance and diversity of native fish (Gehrke et al. 1995). The possible effects of water extractions on streamflow were investigated following the 2019 Menindee Fish Kill (Jackson et al. 2020). This investigation highlighted the importance of habitat connectivity for fish spawning and fish movement along the Darling River, including its lower reaches known as the Barka River.

Importantly, Grafton et al. (2022) find that over that past 40 years, increased water extractions have contributed to more than half of the recent decline in annual mean streamflow on the Lower Darling River. In addition, their analyses show there is a declining trend in stream flow as result of increased drying. This means **that to maintain recent stream flows there must be a reduction in overall water extractions and associated water consumption.**

Grafton et al. (2022), and others, show that streamflow declines have reduced waterbird abundance which is strongly associated with breeding frequency. Streamflow decline, which has increased in the past 20 years, has diminished the abundance and resilience of waterbirds in the Lower Darling (Baaka) River. There is an abundant literature that water extractions, including from floodplain harvesting, has contributed to large and on-going losses in ecosystem services in wetlands and riparian environments (Australian Academy of Science, 2019; Kingsford et al., 2017; Thoms and Delong, 2018).

Thus, in our view, it is critically important that Barwon-Darling Water Sharing Plan:

- (1) Reduce overall water extractions to the Barwon-Darling and its tributaries and,**
- (2) In particular, reduce water consumption associated with floodplain harvesting.**

While it is a common premise that the Barwon–Darling River has a highly variable hydrology with long periods of zero flow, there is now strong evidence (Mallen-Cooper and Zampatti, 2020) that this premise is incorrect. The evidence is that during long severe droughts, there have always been persistent base flows supporting lotic habitats; and near annual, landscape-scale flow pulses. It is these lotic habitats that support mussels and snails which are fundamental drivers in the food chain for native fish assemblies and crustaceans. This new understanding presents a significant opportunity to improve ecosystem integrity by recovering these key ecohydraulic facets of the natural flow regime through integrated water management, alternative sources of water for consumptive use during low flows, and weir rationalisation. The careful analysis of past data provides insight into a Barwon– Darling River ecosystem that supported lotic biota and people for millennia, even with low inflows in extreme droughts. This context enables an ecohydraulic perspective of the river that helps explain present impacts, provides new directions for river management, and clarifies choices for stakeholders. It is critical that this knowledge be incorporated in the Barwon Darling Water Management plan.

Currently, catchment specific Water Sharing Plans operate largely independently and have little or no requirement to pass water from upstream storage dams to the Barwon– Darling River (e.g., Water Sharing

Plan for the Gwydir Regulated River Water Source 2016, <https://legislation.nsw.gov.au/#/view/regulation/2015/629>, accessed 3 January 2020). The impacts of this compartmentalised water management are exaggerated in a system like the Barwon–Darling which receives most of its water from tributaries. Consequently, linking operation of storage dams and tributaries so they contribute to low flows in the Barwon–Darling is key to the future health of the river (Mallen-Cooper and Zampatti, 2020).

Thus, in our view, it is critically important that:

- (1) The Water Sharing Plans of *all* the tributaries of the Barwon-Darling be connected and integrated to yield the flow requirements of the Barwon-Darling and**
- (2) Stream flow requirements of *all* tributaries be transparently included in the Barwon-Darling Water Sharing Plan.**

2. Town Drinking Water Quality Needs and Requirements (prepared by Paul Wyrwoll)

The licensing of floodplain harvesting authorises and formalises one of the key causes of the deteriorating health of the Barwon-Darling/Barka in recent decades. In order to secure the 'social license' for this reform, the NSW Government will need to build trust with downstream communities that any negative impacts will be identified, managed, and addressed.

One of the key concerns for communities along the river is insecurity and poor quality of town water supplies. Submissions to and the final report of the Natural Resources Commission (2019) review of the Barwon-Darling Water Sharing Plan (WSP) documented the costs to communities and households from purchase of bottled water, higher water treatment costs, water carting, water restrictions, negative physical and mental health outcomes, and unacceptable quality of alternative groundwater supplies.

The Australian Drinking Water Guidelines (ADWG) are the national framework for describing, managing, and monitoring drinking water quality from catchment to consumer. Health-based and aesthetic guideline values across microbial, chemical, and physical characteristics provide a basis for state/territory regulations across all jurisdictions in Australia. The guideline values are defined to ensure "good quality water – that is, water that is aesthetically pleasing and safe, and that can be used without detriment to fixtures and fittings" (ADWG 2022, p. 79). Numerical guideline values are defined for 6 physical aesthetic characteristics (true colour, turbidity, hardness, total dissolved solids, pH, temperature, and dissolved oxygen), whereas the benchmark for taste and odour is defined as "not offensive to most people" (ADWG 2022, p. 189).

Section 3.10.2 of the ADWG state that water suppliers should produce an annual public report summarising performance against numerical health-based and aesthetic guideline values to support evaluation of service improvements and "ensure that drinking water quality management is open and transparent" (ADWG 2022, p. 57). **New South Wales is the only jurisdiction in Australia where that guideline is not actioned through regulation nor as an industry norm.**

The **ADWG guideline values are specifically referenced in Section 9.05 of the Murray-Darling Basin (MDB) Plan** regarding the following objectives for raw water for treatment for human consumption:

- "(a) to minimise the risk that the quality of raw water taken for treatment for human consumption results in adverse human health effects;**
- (b) to maintain the palatability rating of water taken for treatment for human consumption at the level of good as set out in the ADWG; and**
- (c) to minimise the risk that the quality of raw water taken for treatment for human consumption results in the odour of drinking water being offensive to consumers."**

In contrast to the ADWG and the MDB Plan, **the WSP social and cultural objectives for the quality of water supplied to towns are imprecise. Target ranges for town water supply are mentioned but not specified (Part 12A (2c.)).** The most relevant performance indicators appear to be the changes or trends in social or cultural benefit associated with "the recorded values of water quality measurements including salinity, harmful algal blooms, total nitrogen, total phosphorus, pH, water temperature and dissolved oxygen" (Part 12A (5d.)).

Section 5.1.4 of the draft Water Resource Plan (DPE 2019, p.34) states that specific targets with reference to the ADWG are defined in the Drinking Water Management System for each of the four water providers in the Barwon-Darling Water Resource Plan area: Bourke Shire Council, Brewarrina Shire Council, Central Darling Shire Council, and Walgett Shire Council. Of these four, only the Walgett DWMS is made publicly

available on the council's website (<https://www.walgett.nsw.gov.au/wp-content/uploads/2021/02/Walgett-DWMS-August-2020.pdf>). **It is not clear what specific target values for raw water quality are specified in relation to the seven characteristics mentioned in the WSP nor the broader set of characteristics where guideline values are defined under the ADWG.**

There are currently no defined water quality targets for raw water for drinking water supplies drawn from the Barwon-Darling/Barka within the water management framework. The NRC (2019, p. 122) review of the WSP recommended that the plan be revised to clearly state the link between water quality measurements and objectives. It appears that this has not occurred in the context of town water supplies. Such targets could be developed with communities, local businesses, local water utilities, and inform related DPE-Water programs, such as the Town Water Risk Reduction Program.

Even if there were defined targets in the WSP, there is currently no recourse for residents of Barwon-Darling towns to establish whether they were being met nor how poor raw water quality affects their drinking water supplies. Unlike every other Australian state and territory, drinking water providers in New South Wales are not required by regulation to publicly report drinking water quality monitoring against the guideline values of the ADWG. Drinking water management is not open nor transparent in New South Wales. NSW Health (2022) provides free testing of microbial and other health-related parameters to local utilities, but the results are stored in a database that is not publicly accessible. The Local Water Utility Performance Dashboard (DPE 2022) provides aggregated statistics across microbial and chemical performance for the entire supply system, not individual towns nor parameters (see Table 2.1). No data is provided for aesthetic characteristics. It is unclear how the information in Table 2.1 could support residents of Wilcannia, Bourke, and other towns on the river to understand how their drinking water quality has changed over time for specific contaminants and why.

The lack of transparency on drinking water quality is a broader issue in NSW beyond the immediate scope of the revisions to the Barwon-Darling WSP. However, it is consistent with a pattern where: **(a) drinking water quality is not given a priority in the water resource management process, and (b) the risk of poor raw water quality for town supplies is allocated to, and managed by, local water utilities** and the communities they serve, not state government agencies and upstream water users.

In sum, we recommend that current revision to the WSP ensures that NSW-DPE work with stakeholders to define water quality targets for town water supplies and other water uses that enable the measurement of performance over time. These enabling actions, combined with greater transparency over drinking water reporting, would inform evidence-based consideration as to whether floodplain harvesting, and other upstream extractions, are harming the health and well-being of downstream communities in terms of drinking water quality.

	% total population served where ADWG microbiological compliance achieved				% total population served where ADWG chemical compliance achieved				Other sources of information on town drinking water quality
	16-17	17-18	18-19	19-20	16-17	17-18	18-19	19-20	
Bourke Shire Council	100	100	100	100	100	100	72.00	100	State of Environment report lists number of times drinking water quality guidelines not met (https://bourke.nsw.gov.au/wp-content/uploads/2022/01/2016-21-Bourke-SoE-report.pdf)
Brewarrina Shire Council	97.39	99.25	100	100	90.00	100	90.00	100	"The water business also reports to NSW Health on matters of drinking water quality" (https://www.brewarrina.nsw.gov.au/engineering/water-sewerage.aspx)
Central Darling Shire Council	100	100	100	98.01	75.00	100	75.00	100	No information provided on drinking water quality (https://www.centraldarling.nsw.gov.au/Infrastructure/Water)
Walgett Shire Council	100	99.62	100	100	96.67	100	80.00	100	Raw and summary data from 2012-2017 in the Drinking Water Management System report published in 2020 (https://www.walgett.nsw.gov.au/wp-content/uploads/2021/02/Walgett-DWMS-August-2020.pdf)

Table 2.1. Drinking water quality data for town water supplied from the Barwon-Darling/Barka River 2016/17-2019/20

Data self-reported by local water utilities to the NSW Local Water Utilities Performance Monitoring Database (DPE 2022). Note that Walgett's primary potable water supply is the Namoi River, but Collarenebri in Walgett Shire Council sources potable water from the Barwon River.

3. Responses to Proposed Amendments in the Water Sharing Plan (prepared by Daniel Schulz)

Water Sharing Plan rules and management of flows that meet the ongoing needs of the lower Darling community have been and continue to be insufficient. This submission is based on recent reviews of the Barwon Darling Water Sharing Plan (Natural Resources Commission 2019), reports investigating the Menindee fish kills in the lower Darling (Australian Academy of Science 2019, Vertessy et al. 2019, Maloney et al. 2020), as well as the ongoing and consistent community responses to water management that demand more equitable Water Sharing Plan (WSP) Rules, as outlined in various inquiries and local news reporting.

Additionally, this submission is based on the recent consultation held by DPE Water at Menindee on the 15th of June, and notes made by Daniel Schulz based on discussions with community and responses of New South Wales Department of Environment staff.

In our view, those sources listed above document that the proposed amendments for the Barwon Darling Water Sharing Plan are insufficient to meet goals and need further review. In particular, they do not meet their obligation to provide “critical human needs over other extractive uses” (Natural Resources Commission 2019) and they do not address the ongoing failure of the WSP to meet its policy goals which are to maintain and improve:

- (a) the **health and enhancement of the water source** and its water-dependent ecosystems;
- (b) the **continuing productive extraction of surface water for economic benefit**;
- (c) the spiritual, social, customary and economic benefits of surface water to Aboriginal communities;
- (d) **social and cultural benefits to urban and rural communities that depend on surface water**.

The **Barwon-Darling Water Sharing Plan and its proposed amendments are inadequate because:**

1. **Aboriginal Cultural Water Allocation has not been legislated in the WSP:** There is still no allocation in the BDWSP for Aboriginal cultural water access licenses and this needs to be addressed in the WSP as it is a policy goal of the WSP to maintain and improve spiritual, social, customary and economic benefits of surface water to Aboriginal communities.
2. **Low security licensing rules have not been sufficiently revised:** Unlimited carryover and 300 percent take rules have increased access to low flows and contributed to the impact of critical dry periods – and as per the Natural Resource Commission’s 2019 review of the BDWSP, any modelling suggesting the carryover provision does not impact the critical dry periods must be revised, and the unlimited carryover and 300 percent take rules must be changed to address the impact of these licensing rules on ongoing water insecurity in the lower Darling.
3. **Trigger targets for Critical Dry Periods are insufficient:** The proposed trigger targets that determine when first flush management arrangements start and when they cease to apply, are *completely inadequate* and do not effectively mitigate risk or reduce the impact of cease-to-flow events on the human and animal communities of the lower Darling
4. **System Connectivity Targets are insufficient:** System Connectivity must include end of catchment flows in the Barwon-Darling catchment which reach the Murray River at Wentworth. Pre-emptively, during and immediately after critical dry periods an end of catchment flow target should be met *before* temporary water restrictions are lifted.
5. **The lower Darling has no Water Sharing Plan:** The lower Darling continues to have no Water Sharing Plan and without adequate in-flow targets to Menindee Lakes (the ‘Menindee Lakes Critical Storage

Triggers' is far from sufficient to being an appropriate in-flow target at Menindee), the lower Darling and its critical human and environmental needs are not provided for in the WSP arrangements.

Community has consistently stated that the Water Sharing Rules in the Barwon-Darling Catchment are skewed toward access rules that benefit the irrigation industry upstream of Bourke, and negatively impact the human and environmental needs of the lower Darling.

3.1 Cultural Water Allocation has not been legislated in the WSP

There is no allocation within the WSP for Aboriginal uses of water (cultural flows) despite it being one of the four main objectives of the WSP; to maintain and improve the “the spiritual, social, customary and economic benefits of surface water to Aboriginal communities.” As stated by Barkandji Elder Badger Bates, “...without the Barka - the Darling - we have no culture, no name, because the Barka is our mother... They talk about a ‘water sharing’ plan - where’s our water, where’s our share?” (De Groot 2018)

The NSW Government is failing at basic engagement protocols with First Nations groups. As stated in the Claydon Review, a key recommendation is to “progress conversations with First Nations people in relation to information needs and engagement protocols, as well as values, uses and objectives for water, including those impacted by resumption of flows and active management of flows.” (Claydon 2021) Recommendation 16.

At the consultation at Menindee on the 15th of June, there were no First Nations identifying people at this event, and therefore the process for engaging key community members in the lower Darling during the public exhibition period is inadequate and this policy review process has failed the basic requirements to engage Traditional Owners and First Nations people.

Furthermore, **the ongoing failure of water policy to provide for Aboriginal cultural and customary uses in the catchment via the provision of Cultural access licenses is subject to sustained criticism from scholars as well as community members (Natural Resources Commission 2019; Hartwig et al. 2020; Maloney et al. 2019; NSW 2021a). This needs to be addressed in the WSP as it is acknowledged by the NSW Government that “a framework that more clearly outlines how these applications are considered needs to be developed.” (NSW Department of Planning 2020) This should be developed in the WSP Plan and become an integral part of WSP rules.**

3.2 Low security licensing rules have not been sufficiently revised

Access rules that allow low security water licenses to access water during moderate to dry years are untenable. **Supplementary water licenses, floodplain harvesting, and A class licensing rules must be changed to protect river flows and surface water during moderate to dry years.** It has been found by the (Natural Resources Commission 2019) that A Class licenses have contributed to the length and impact of cease-to-flow events by legally extracting low flows. A Class licenses were originally designed to protect permanent plantings during drought years; however, they are being used for cropping purposes.

These rules must change to protect the lower Darling and mitigate the risk of cease-to-flow and low flow events impacting the human and animal communities of the lower Darling.

3.3 Trigger targets for Critical Dry Periods are insufficient

Current triggers that determine when first flush management arrangements start and when they cease to apply are completely inadequate and not based on best available science, historical evidence, or local knowledges. This is clear when it comes to the 195GL total storage target in Menindee Lakes. During the consultation period at Menindee on the 15th of June, staff at DPE Water could not explain how the ‘Menindee

Lakes Critical Storage Triggers' had been determined and why this critical storage trigger was determined as 'total storage' rather than 'active storage' (Personal communication). It is understood that 195GL had come from modelling done by WaterNSW (NSW Department of Planning and environment 2022, p. 14), however there is zero analysis of this modelling by DPE, and there is zero assessment of its adequacy by DPE.

According to the community consultation at Menindee on the 15th of June 2022, and a very basic review of the previous critical dry period (2018-2020), 195GL of total storage does not come close to "12 months of water for human needs and minimum water sharing plan releases." (New South Wales Department of Planning and Environment 2022b). There was also no reason or justification for making this figure 'total storage' as opposed to 'active storage.' Given that dead storage volume within the Menindee Lakes system is 125GL (NSW Department of Industry 2018), this trigger point could leave Menindee Lakes with only 70GL of active water than can be used to manage the lower Darling during critical dry periods.

In our view, 195GL of total water storage is inadequate given that the purpose is to reduce the impact of critical dry periods and meet downstream needs. According to the historical data of Menindee Lakes Total Storage Volume provided by the MDBA, during the last critical dry period (late 2017-early 2020) the total storage volume of MLS was recorded to be 195GL in August 2018. By December 2018 the first fish kill in the lower Darling had occurred and another in January 2019. Within this 5-month period, the 195GL of total storage in ML was not effective in any way at providing algal suppression flows for the Lower Darling. Had Menindee Lakes volumes been retained, and releases minimised, it was found by Vertessy et al. (2019) that any additional volumes available to manage water quality would have "enabled more effective mitigation of the recent fish death events by increasing releases to breakdown stratification." **Storage to provide algal suppression flows during critical drought periods should be an objective of the WSP, and 195GL of total storage does not achieve this goal.**

According to *Draft Western Regional Water Strategy: Attachment E: Critical dry condition triggers to reduce risk to environmental and human water needs Discussion Paper*, the Department has "also considered a draft trigger that would provide up to 2 summers, or 18 months, supply in Menindee Lakes under no inflows, but still with required water sharing plan releases which meet town, domestic and stock, and commercial needs. *We did not progress this* because significantly larger volumes of water would be required to be stored in lakes Pamamaroo and Copi Hollow that would also mean that a substantial amount of that water would be lost to evaporation." (Emphasis added)

By not progressing this necessary option to manage risk in the lower Darling, the Water Sharing Plan is not achieving its intended aims. As discussed by the *Review of the Water Sharing Plan for the Barwon-Darling Unregulated and Alluvial Water Sources 2012*, "The Plan rules should be designed in line with the Act's principles. That is, to primarily achieve environmental outcomes, with a subsequent objective to protect basic landholder rights, and beyond this to minimise impacts to other extractive users." (Natural Resources Commission, p. 113)

By not progressing options which achieve the minimum requirements of the WSP to provide critical needs for the lower Darling community and effectively manage risk of critical dry periods, the NSW Government is being negligent.

Targets that are more appropriate to meet the Plan's obligations have been suggested by community members and documented in *Investigation of the causes of mass fish kills in the Menindee Region NSW over the summer of 2018–2019, by Australian Academy of Science*: "It will be important to continue to regulate water for downstream use and hold water primarily in Lake Pamamaroo, Lake Wetherill and Lake Tandure; based on local advice, we suggest that the system be managed to maintain at least 400 GL of accessible water in these upper lakes." (Australian Academy of Science 2019, p. 34).

3.4 System Connectivity Targets are insufficient

During critical dry periods and cease-to-flow events, trigger targets that determine when first flush management arrangements cease to apply, must include *end of catchment flow targets*. These targets should be met *before* temporary water restrictions are lifted. This would be conducive to community definitions of river connectivity as outlined in the following inquiries and reports:

Rationale for, and impacts of, new dams and other water infrastructure in NSW: Part 2, Portfolio Committee No. 7 – Planning and Environment (NSW Parliament 2021a, pp. 54-55, detailing submissions made by community members to the inquiry about connectivity)

Report no. 1 - Floodplain harvesting - Select Committee on Floodplain Harvesting (NSW Parliament 2021b, p. p51 detailing submissions made by community members to the inquiry):

“We need adequate measurement for the whole length of the river systems to know exactly what is going on and where the water is. At the moment we have the biggest problem where the northern Basin and the southern Basin are basically broken in two where they have separated the Darling River at Wilcannia, where we have minimal flow targets at Wilcannia of 10 days, 400 megalitres, which does not actually make it to Menindee at all. We feel that the storage targets at Menindee and flow targets the length of the Barwon-Darling and the northern tributaries should provide critical needs right through to the Murray-Darling junction, not just to Wilcannia, which is not where the Darling River finishes.” Evidence, Ms Rachel Strachan, Vice Chair, South-Western Water Users Association, 22 September 2021, p 22. (NSW Parliament 2021b).

Review of the Water Sharing Plan for the Barwon-Darling Unregulated and Alluvial Water Sources 2012, Natural Resources Commission, 2019, page 125:

“The Commission recognises that a continuous end of system flow target is not appropriate or feasible for a highly variable, unregulated system with natural cease to flow periods like the Barwon-Darling. However, to acknowledge system connectivity, a periodic end of system flow target could be implemented in the Plan. This would be consistent with global practice of catchment management, rather than tributary management, and would be in line with NSW current practice in water management in other areas such as the Shoalhaven River system.” (Natural Resources Commission, 2019).

In New South Wales Department of Planning and Environment (2022b) connectivity was discussed, and the community:

- (1) Stressed the need to amend water sharing plans to provide for downstream connectivity
- (2) Stated that connectivity between the northern and southern parts of the region and into the Murray River is very important
- (3) Suggested that trigger points are needed to ensure connectivity can be managed between water systems

Coming into dry periods, during a cease-to-flow event, and coming out of a cease-to-flow events, connectivity must be measured across the entire catchment and must include an end of catchment flow target i.e., flows reach the Murray River at Wentworth. To be extracting water while the river is disconnected is not condoned by the Darling River community as detailed in the multiple submissions made by community members over many years, and as outlined in the Natural Resources Commission (2019).

3.5 Recommended Amendments to the Barwon-Darling Water Sharing Plan

3.5.1. **Amendments must include cultural flow targets to maintain and improve spiritual, social, customary, and economic benefits of surface water to Aboriginal communities** and become an integral part of the WSP's.

- 3.5.2 **Ensure all drought reserve targets constitute “active water” and do not include “dead storage”** volumes, as “dead storage” volumes are ineffective for managing critical human and environmental needs.
- 3.5.3 **Ensure all drought reserves and cease-to-pump targets for the lower Darling are based on targets that ensure the lower Darling has accessible and manageable water for two summers or 18 months.**
- 3.5.4 **Review the 195GL target of critical drought storage at Menindee Lakes**, as per expert and local advice (Academy of Science 2019), and adjust this target to 400+GL of “active water” (‘active water’ is water stored in Lake Wetherell/Pamamaroo and water that is able to be released back into the Darling via the main weir or block dam).
- 3.5.5 **Develop end of catchment flow targets for the period prior to a critical dry period, during a critical dry period and after a critical dry period.** These end-of-catchment flow targets may be measured at Burtundy gauge, and these end-of-catchment flow targets must be met *before* temporary water restrictions are lifted.
- 3.5.6 **Recommence the process of creating a Lower Darling Water Sharing Plan**, to ensure water sharing planning regions are adequately represented in policy.
- 3.5.7 **Replace the 300 percent take rule with a rule allowing for 450 percent use over three years, as recommended by the 2019 Natural Resource Commission's**, Review of the Water Sharing Plan for the Barwon-Darling Unregulated and Alluvial Water Sources 2012.

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Amendment of the water sharing plan for the Barwon–Darling river

A summary of proposed changes to the *Water Sharing Plan for the Barwon–Darling Unregulated River Water Source 2012*

The NSW Government is proposing to amend the *Water Sharing Plan for the Barwon–Darling Unregulated River Water Source 2012* to:

- include floodplain harvesting provisions to enable licensing and regulation of floodplain harvesting in the plan area
- establish rules for temporary trade of individual daily extraction components (IDECs) within river sections
- allow WaterNSW to amend access announcements within 24 hours of the initial announcement when there is more water in the river than forecast – for example, because of unforeseen circumstances such as local rainfall events
- allow forecast flow data at both reference gauges to be used to make flow class announcements when one of those gauges is not working
- clarify how the cumulative flow trigger that relaxes the ‘resumption of flows’ rule works
- remove redundant clauses and notes
- update contact information
- update the wording of standard clauses to be consistent with recent changes to other water sharing plans.

Before the Minister for Lands and Water can replace or amend a water sharing plan under the provisions of the *Water Management Act 2000*, the concurrence (that is, formal agreement) of the Minister for Environment and Heritage is required. Consistent with sections 9(1) and 5(3) of the Act, the ministers must ‘take all reasonable steps to do so in accordance with, and so as to promote, the water management principles of this Act’, and in relation to water sharing observe the following priority order:

- 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).

Following consultation on the proposed amendments, the NSW Department of Planning and Environment’s Water group will review all submissions and work with its colleagues in the

department's Environment and Heritage group before submitting the proposed amendments to the ministers for concurrence and approval.

Summary of changes

Table 1 outlines the substantive changes to the plan that the government proposes to the plan to give effect to the changes outlined above.

Rows in *italics* show changes we will make under a separate process. The department is not seeking comment on those changes.

Table 1. Summary of proposed changes to the *Water Sharing Plan for the Barwon–Darling Unregulated River Water Source 2012*

Clause	Plan as made June 2020	Proposed amendment 2022	Basis for change
3 (2)	Active management provisions to commence 1 December 2021	Removed	Active management provision now enacted
4 (3) (d)	Water included in the water source	Amended to clarify water extracted under a floodplain harvesting (unregulated river) access licence is part of the water source. Redundant note removed.	Licensing of floodplain harvesting take
20	<i>Incomplete reference number</i>	<i>Correction to National Native Title Tribunal reference</i>	<i>Correction of error Amendment to be applied</i>
29	Repealed clause number used for new clause	Provision included to facilitate floodplain harvesting licence share components	Licensing of floodplain harvesting take
31	New subclause	Exclusion of floodplain harvesting licences from amendment of share components	Licensing of floodplain harvesting take
32 (4)	New subclause	Provision to exclude exempt rainfall runoff or water taken under clause 55 in the calculation of long-term annual extraction or long-term average annual extraction limit	Licensing of floodplain harvesting take

Clause	Plan as made June 2020	Proposed amendment 2022	Basis for change
34 (c)	Removed	No longer required as floodplain harvesting calculated under licences	Licensing of floodplain harvesting take
36, 39	New clause	Provision included to facilitate floodplain harvesting licence water determinations	Licensing of floodplain harvesting take
36 (9)	Previously subclause (5)	Included NSW Environmental Water Manager (department's Environment and Heritage group (EHG), formerly known as the Environment, Energy and Science group) to be consulted before action taken	Allows input from EHG as well as water user representatives and the operator (WaterNSW) before taking action to address non-compliance with either the long-term average annual extraction limit or the long-term average sustainable diversion limit
41	Repealed clause number used for new clause	Provision included to facilitate floodplain harvesting water supply works	Licensing of floodplain harvesting take
42 (3A)	New subclause	<i>Temporary exemption from volume limits on sale of account water by specific low and no entitlement licence holders</i>	<i>Amendment to be applied</i> <i>Exemption commences once the subclause takes effect</i>
42 (10)	New subclause	Provision included to facilitate floodplain harvesting licence water allocation accounts	Licensing of floodplain harvesting take
42A (3)	Need to change calculation procedure in WDM to accommodate this. Significant testing is required after the change is made.	Provision included to facilitate implementation of temporary trade of IDECs	Temporary trade of individual daily extraction components (IDECs)
43A	New clause	Exclude floodplain harvesting licences from access rules in Division 2 of Part 8	Licensing of floodplain harvesting
46 (5)	New subclause	Access rule to apply to water subject to temporarily dealings (trade) of IDECs	Temporary trade of IDECs

Clause	Plan as made June 2020	Proposed amendment 2022	Basis for change
46 to 47	Notes Significant change is required in the system- both CARM and WDM to implement this. This is a double work for the operator. On the day when amended announcement is required, he needs to do double work. This will be an additional workload on our operations team which is already in stress.	Removed notes as clause has commenced	Active management has commenced
49A (3A)	flows at a reference gauge could not be determined (gauge not	Allow for amendment to flow class announcement in the case of flow forecast inaccuracies	Allow timely response to differences in forecast and observed flows due to unforeseen circumstances
49A (5)	Not sure what corrections are mentioned here. We recommended to change the wording "more than" to "equal to or more than"	Removed subclause and rule to only use one flow class threshold to set access	Use best available data to set access announcements
49A Table B		Correction to flow class threshold	Correction to error Amendment to be applied as soon as possible
50	Flow trigger (30,000 ML at Bourke) that relaxes the resumption of flows rule	Changes to show trigger is a cumulative flow and to clarify when flows start contributing to the 30,000 ML	Clarify how relaxation trigger works
54	Repealed clause number used for new clause	Provision included to facilitate taking of uncontrolled flows for floodplain harvesting licences	Licensing of floodplain harvesting take
55	Repealed clause number used for new clause	Provision included to apply access rules to floodplain harvesting licences	Licensing of floodplain harvesting take
64, 67, 69	New subclauses As mentioned, this requires changes in WDM calculation procedure. A conceptual workflow needs to be developed.	Provision included to facilitate dealings for floodplain harvesting licences	Licensing of floodplain harvesting take
64A	temporary IDEC dealings	Provision amended to permit temporary IDEC dealings	Allow temporary trade of IDECs
71	Removal of subclauses	Mandatory metering requirements have commenced under the regulation	Regulation

Clause	Plan as made June 2020	Proposed amendment 2022	Basis for change
71	New subclause	Provision included to facilitate mandatory conditions for floodplain harvesting licences and water supply work approvals	Licensing of floodplain harvesting take
72	Removal of subclauses	Mandatory metering requirements have commenced under the regulation	Regulation
72 (2)	Existing clause	Provision included to facilitate mandatory conditions for floodplain harvesting licences and water supply work approvals	Licensing of floodplain harvesting take
84	New subclauses	Provision included to facilitate future amendments for floodplain harvesting licences	Licensing of floodplain harvesting take
Dictionary	This is a new inclusion. These licenses are excluded from three tomes of the share component usage limit. May need to change the code inside WDM to accommodate this.	Additional terms added	Need to clarify existing/additional terms
Schedule 1A	New schedule	Licences temporarily exempt from limit in clause 42(3) that restricts use of account water	Amendment to be applied
Schedule 2	Need to change CARM and WDM to accommodate the corrected licensed Incorrect licence listed	Correct licence listed	Correction of error Amendment to be applied
Appendix 2	Repealed clause number used for new clause	Map included to facilitate floodplain harvesting licences and water supply works	New map
Appendix 3	New appendix	Map included to facilitate floodplain harvesting licences and water supply works	New map

More information

To review the draft amended Water Sharing Plan for the Barwon–Darling Unregulated River Water Source 2012 and other fact sheets, visit dpie.nsw.gov.au/barwon-darling-wsp.

Nicole McLaughlan

From: Madeleine Hartley [REDACTED]
Sent: Monday, 15 August 2022 12:03 PM
To: Kate Masters
Cc: Nicole McLaughlan; Amy Halliday; Suzanne Wheeler
Subject: RE: Barwon Darling WSP amendment feedback
Attachments: summary-of-changes-table-fact-sheet_PS.pdf

Hi Kate,

Thanks for your patience. The WaterNSW comments are below and **attached** (the two are complimentary). For future reference, I've usually been part of a DPE-led working group discussing WSP amendments and remakes. This has ensured WaterNSW as a whole has been part of the process and been able to provide early advice to DPE on the practicality of WSP amendments, as well as minimise disruption within government. It would be great if I can be included in this type of working group going forward (if it still exists).

1. The **active management system will need to be amended to accommodate some of these changes**. To do this, WaterNSW will need sufficient engagement before the commencement of the proposed changes and timeframes will need to be agreed between the parties, noting the potential for differences in priorities and resources. It is likely a joint project will need to be developed with DPE to make the changes in CARM/WDM to accommodate the proposed changes. Testing (potentially extensive) will also be required to both the proposed changes and current rules, in order to make sure the announcements are producing expected results. This is a considerable body of work that requires further discussion with WaterNSW. This will need to be part of a broader conversation about the obligations this places on WaterNSW, expected timeframes, and resources (including funding).
2. WaterNSW is working with DPE on establishing IDECs. Some of the lessons learned through this project should be applied to the above point as to active management changes, to ensure effective engagement and timely results.
3. WaterNSW recommended and agrees with the sub-daily announcements. Similar to the above, this will need to be the subject of further engagement between DPE and WaterNSW to ensure its operability prior to the commencement of the amendments.
4. Can DPE clarify the flow trigger regarding the relaxation of the RoF rule? We will need to check this against our CARM system.
5. Allowing forecast flow data at both reference gauges to be used to make flow class announcements when one of those gauges is not working – this aligns with WaterNSW practice.

Let me know if you want to discuss any of the above points.

Kind regards,

Madeleine Hartley
Manager Policy & Regulatory Strategy
[REDACTED]

I support flexible work and am sending this email at my convenience. I do not expect you to respond or reply outside of your usual hours.

WaterNSW acknowledges the Traditional Custodians of the land and water on which we work and recognises the continuing cultural and spiritual connections that Aboriginal and Torres Strait Islander People have to Country. We pay our respects to Elders past, present and emerging.

From: Kate Masters [REDACTED]
Sent: Wednesday, 27 July 2022 6:09 AM
To: Madeleine Hartley [REDACTED]
Cc: Nicole McLaughlan [REDACTED] Amy Halliday [REDACTED]
Subject: Barwon Darling WSP amendment feedback

This Message Is From an External Sender

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Be careful opening emails, attachments and links from unknown senders.

Hi Madeline,

Hope you are well! It has been a while!

Just following up to see if you are hoping to provide feedback on the Barwon Darling proposed amendments. I have attached the WSP and the factsheets. The amendment includes floodplain harvesting rules.

Amy, Nicole and I are happy to have a meeting with you to run through the changes and feedback if that makes it a bit easier.

--

Kind Regards

Kate Masters
Manager Inland Surface Water Planning

Water | Department of Planning and Environment
[REDACTED]

Tamworth Agricultural Institute, 4 Marsden Park Road, Calala NSW 2340

www.dpie.nsw.gov.au



Our Vision: Together, we create thriving environments, communities and economies.

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

2 July 2022

Barwon-Darling Water Sharing Plan amendments
Department of Planning and Environment—Water
209 Cobra Street, Dubbo NSW 2830

RE: Submission regarding the Draft Barwon Darling Watercourse Water Resource Plan

To whom it may concern

Thank you for the opportunity to comment on the Draft Barwon Darling Watercourse Water Resource Plan (WRP).

Our family have been landholders on the Lower Darling since the 1880's. Six generations of our family have lived on the Lower Darling and been able to rely on regular water flow to sustainably run a successful grazing enterprise. We believe this gives us a rare insight into this important part of the Darling river system. Our family company currently owns and operates 5 livestock properties in the Western Division, 3 of these properties rely on fresh water being supplied from Menindee Lakes to the Lower Darling and a 4th one relies on the Menindee - Broken Hill pipeline.

The properties on the LD are situated approximately 60 km south of Menindee. We can go through family history for 5 generations without seeing any water quality problems like we have seen in the last 17 or so years. In 2005 we had to put down a bore for stock & domestic water. Prior to this (from 1880 to 2005) there was never any need to have a bore for stock & domestic consumption as there had previously always been enough supply of good quality water for property use from the Lower Darling River.

Since 2002 we have seen around 5 extended cease to flows which cause high salinity and blue green algae issues. The blue green algae issue then renders the water unusable for our stock and domestic purposes. The most recent cease to flow was also worsened by the presence of dead and dying fish as various waterholes dried up.

The most recent incarnation of the BD WSP has seen the addition of a 195 GL storage target for water held at the Menindee Lakes, at first glance this would seem like a small improvement for Lower Darling reliability.

After further discussions with the department in Menindee it was revealed that 195 GL of "active" storage was put forward by Water NSW as an achievable outcome. 195 GL whilst sounding generous is basically 10% of capacity Menindee Lakes full level. If the 195 GL active storage was available in 1 lake (Pamamaroo) when the Lakes fell to this level it is conceivable that it could represent 12 months supply to the Lower Darling. However if the active storage was spread across the 4 lakes, to total 195 active storage is not likely to last more than 3 months, especially if it is heading into summer. This conceivably could cause fish kills within 3 months of hitting the 195GL target both within the lakes and in the Lower Darling itself.

The prediction becomes even worse if the 195GL is total storage. Under this scenario it could be expected that the Lower Darling would cease to flow the moment the 195 GL was hit with very little active water available to the township of Menindee and Lower Darling. It would depend on which lake the active water was stored in, but there is no mention of where it is to be stored in the plan.

It is my opinion that a target of 18 months supply at Menindee is required to bring back some reliability and integrity to the water supply for those living south of Bourke, through to Wentworth. This is less than the original 21 months supply at Menindee as was seen in the pre

2012 plans but more than the 195GL storage proposed. The predictions I've seen for 18 months supply range between 300 to 400 GL of active supply held in Lake Pamamaroo. This must be a consideration if DPIE wish to comply with the Water Management Act.

It was also revealed the Ministers office had chosen to change the "active" storage outcome to "total" storage. This change of wording means any hope of a viable outcome for the Menindee Lakes and Lower Darling with a 195GL total storage is non existent. A large part of 195GL total storage would be dead storage. It would mean a whole lot more cease to flows between Bourke and Wentworth and a death sentence to the Environment, Indigenous culture, tourism, grazing and many family owned businesses.

Having the ministers office intervene on such an important figure, brings back memories of 2012 when a minister interfered, to solely benefit upstream irrigators and the ministers interference was later sent to ICAC for investigation. It would seem this time the reasoning is the same, to protect low security irrigation water ahead of Town water supplies, Stock and Domestic water supplies and High Security water supplies, all of which are listed as priorities under the Water Management act. It would also reduce access to water for cultural practices of the Indigenous nations along the length of River from Bourke to Wentworth. The minister refusing to allow a target of active storage at Menindee, really can only be described as nepotism towards a few "special" irrigators in the BDWSP area.

Under the current BDWSP first flush rules only 30GL needs to pass through Bourke then pumping can commence with irrigators able to access up to 300% of their annual take. Once the 30GL has passed Bourke the door is now open to pump the Barwon Darling irrigator allocation of 195GL x 300% = 470GL plus the extra proposed FPH allocations, without any consideration to get 60GL of water to Menindee. The 60GL is a part of the MLDWSP but has no mention in the BDWSP which is the major water supply for Menindee, its absurd such oversight can be condoned. Once again nepotism towards a few irrigators, whilst hundreds of other individuals, groups, businesses, and the environment are neglected downstream of Bourke.

This will mean a very sad and slow end to our family farming operation. It will also mean a similar fate for Indigenous culture, towns, native fish species, native animals, ancient native trees and all things in the Riverine Environment that rely on fresh regular flows

The Barwon-Darling Water Sharing Plan should include provision to get water to the Murray Junction, under the first flush rule. By only attempting to get some small flows to Willcania before extractions resume is insanity from DPIE. It really leads me to ask just how much consideration is being given to Towns, Stock and Domestic, Cultural, High Security Water Licences, Wildlife, Fish and the Riverine environment downstream of the Barwon-Darling WSP. Your current proposal suggest that no consideration is given.

Finally, these documents are called Water Sharing Plans, it seems some departmental staff maybe overlooking the word "Sharing" and just putting together Water Plans, with no thought to connectivity between Valleys!

Regards

Wayne Smith

Karoola Station
Pooncarie NSW 2648



Submission Time	User ID	IP Address	I would like my personal details and identifying information to be treated as confidential?	Name
5/07/2022 17:54	7		No	Mervyn John Gordon

Postal address	Telephone	Email address	Who are you representing?	If an Organisation, please specify
			Myself (individual)	

Which stakeholder group best describes you?	If Other state government or other stakeholder group not mentioned above, please specify	Do you undertake floodplain harvesting?	Where are you located?	If Other, please specify
Irrigation		No	Northern inland	

If you are a water user in the Barwon-Darling Unregulated River Water Source, what management zone are you located in?	Have you attended a webinar or face-to-face meeting as part of this consultation?	1. Do you support the proposed rules for temporary trade of individual daily extraction components (IDECs) within river sections?	1.1. Please provide a reason for your support/opposition.	2. Do you support the proposed rule to allow access announcements to be amended within 24 hours “for example, when there is more water in the river than forecast due to unforeseen circumstances such as local rainfall events?”
Culgoa River Junction to Bourke	Public face-to-face session	No	Given the now well published negative impacts IDECs have had on the Barwon-Darling Valley, I am adamant the direction now tabled by the department will impose further cost on small licence holders (like myself), and benefit those with large share components. As visible in my IDEC submission to NSW Water late last year, I tabled the example how pump flow rate and small IDEC volume combined to restrict my current B class water access licence on West Mooculta. My IDEC was exceeded as soon as the river flowed at a rate higher than 6 metres on the Bourke gauge. For example, on the 8th of May 2021, the 400 mm licensed pump on West Mooculta was metering 34 megalites per day, however my IDEC for that licenced work was 24.7 megalitres. This 30% difference in pump capacity verses IDEC created the environment where I had to decide not to grow and/or irrigate a crop, as I would have been in breach of my licence conditions. In essence, IDEC water policy had now restricted my business operation to	Yes

2.1. Please provide a reason for your support/opposition.	3. Do you support the proposed changes to allow flow data forecast at both reference gauges to be used to make flow class announcements when one of those gauges is not working?	3.1. Please provide a reason for your support/opposition.	4. Do you support the proposed wording changes to clarify how the cumulative flow trigger that relaxes the resumption of flows rule works?	4.1. Please provide a reason for your support/opposition.

5. Do you have any general comments on the proposed changes plan?	1. Do you support the proposed account management rule of an account limit of 5 ML per unit share?	1.1. Please provide a reason for your support/opposition.	2. Do you support the proposed initial available determination of 1 ML per unit share?	2.1 Please provide a reason for your support/opposition.
	No		No	

3. Do you support the proposed ongoing available water determination of 1 ML per unit share?	3.1. Please provide a reason for your support/opposition.	4. Do you support the proposed trade rules?	4.1. Please provide a reason for your support/opposition.	5. Do you support the proposed rules for the granting or amending of water supply works nominated by a floodplain harvesting (unregulated river) access licence?
No		No		No

5.1. Please a reason for your support/opposition.	6. Do you support the proposed access rule for resumption of flows to be applied to floodplain harvesting (unregulated river) access licences?	6.1. Please provide a reason for your support/opposition.	7. Do you support the proposed access rule to restrict take under floodplain harvesting (unregulated river) access licences when there is less than 195 GL in the Menindee Lakes system until a continuous flow volume of at least 4,000 ML is forecast to occur in the Darling River at the Wilcannia gauge?	7.1. Please provide a reason for your support/opposition.
	No		No	

8. Do you support the proposed amendment provisions?	8.1. Please provide a reason for your support/opposition.	If you want to provide additional feedback you can attach your documents here	Assetid
No	It is my considered opinion, that floodplain harvesting licensing needs to be off the table until the Barwon-Darling model is recalibrated with up-to-date metering data. I understand, and accept, that some data has been collected from the 2020 flow event, and that the total diversion limit remains unchanged, however, I believe the licencing volumes need to be made public, and robustly backed up by policy planners, in order to avoid the pubic prosecutions as witnessed with the creation of the 2012 Water Sharing Plan. In publishing the fact, some 20,000 megalitres are to be issued in NEW licensing on Barwon-Darling Floodplain, the perfect storm will be created amongst a river community whose memory of a dying river in 2019 is very raw. The very fact that 100,000 megs can be extracted in a single water year needs to be explained further in an open public forum. I for one, was encouraged to believe by policy creators, that the water recovered under the Barwon-Darling Cap management Strateg	Submission to draft ammendments to BD water sharing plan July 2022.docx, type application/vnd.openxmlformats-officedocument.wordprocessingml. document, 17.3 KB	518814