



Floodplain harvesting in Macquarie valley water sharing plans

What we heard report

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Introduction

The NSW Government, through the Floodplain Harvesting Action Plan, is committed to regulating and measuring floodplain harvesting by bringing floodplain harvesting into the water licensing system. Floodplain harvesting is the last significant way of taking water yet to be licensed in the Murray–Darling Basin (the Basin). The government is managing this process in a way that is intended to improve trust, confidence and transparency with stakeholders.

In 2008, the NSW Government announced that water users taking water directly from floodplains would need a licence and a water supply work approval. Licences will specify the volume of water users can continue to legally take from floodplains.

Bringing floodplain harvesting into the licensing system will improve accounting for water use and compliance with water laws in NSW, making sure the volume of water taken stays within legal limits set by the Murray Darling Basin Plan and NSW Water Sharing Plans. In valleys such as the NSW Border Rivers and Gwydir where floodplain harvesting has grown beyond legal limits, licensing will reduce floodplain harvesting diversions and make more water available across the floodplain and to waterbodies.

To make the rollout of licensing possible, the Department of Planning, Industry and Environment developed the NSW Floodplain Harvesting Policy, which provides a framework for licensing floodplain harvesting extractions. The policy, first introduced in 2013, is now being put into action across the northern Basin. The rules for floodplain harvesting licences will be set out in water sharing plans.

Water sharing plans are a statutory obligation under the NSW *Water Management Act 2000*. They set out rules for a water source or group of water sources, as well as the rules by which water is distributed to various users. These will include limits on the volume of water that water users can take under a floodplain harvesting licence.

Consultation

The department has consulted on the proposed rules to be included in water sharing plans in each of the 5 northern inland valleys. We began the consultation process with the Border Rivers in October 2020 and continued with the Gwydir in February 2021 and the Macquarie in March 2021.

The 5 key rules in the water sharing plans on which we asked for stakeholder feedback are:

- available water determinations
- account management rules
- permanent trade rules
- access rules
- amendment provisions.

The department acknowledges that it is important for the community and stakeholders to raise issues and concerns about the proposed rules for floodplain harvesting licences through a transparent public submission process. The department encourages members of the community to have their say.

Many complex and varied viewpoints were represented in the submissions about floodplain harvesting in the Macquarie valley.

Because of the complexity of submissions, the department has used a qualitative approach to assess submissions and justify any changes we make to the proposed rules for floodplain harvesting licences. The qualitative assessment approach ensures we consider all stakeholder feedback during the development of the final rules. It also allows the department to consider the

underlying complexities of each submission and cater for examples where people have not understood the proposed rules, or where pre-filled submission forms highlight the same issues.

To ensure a balanced and comprehensive approach to consultation, the department is focused on the scope of issues and concerns raised rather than the number of submissions received. It is important that the department understands the reasoning for supporting or not supporting a proposed rule and responds to that.

About this report

This report summarises the feedback the NSW Government received during the public consultation sessions and from written submissions for the Macquarie valley. The report also outlines the proposed final rules that will appear in water sharing plans and the reasons for these. Additional feedback we received that is outside the scope of rules consulted on is in Appendix 1.

Engagement methodology

The methodology we used to engage with stakeholders about floodplain harvesting in the Macquarie valley aligned with the department's principles. Public consultation must be:

- purposeful – undertaken with a clear understanding of what was to be achieved, and delivering on NSW Government priorities and the department's corporate goals
- inclusive – identifying and enabling the participation of all relevant stakeholders
- timely – allowing enough time for meaningful consultation, outlining timeframes up front and conducting engagement activities in an efficient manner
- transparent – explaining the engagement process, providing information to allow meaningful participation and setting clear expectations around how participants' input would inform outcomes
- respectful – acknowledging the needs, experience, perspective and expertise of participants.

Public exhibition of the proposed rules began in the Macquarie valley on 22 March and ended 18 April 2021. In March 2021, the department held a public webinar and a series of 5 targeted stakeholder meetings via electronic platforms. Face-to-face meetings were held in Warren on Wednesday 31 March and in Narromine on Thursday 1 April 2021.

Information provided

The content covered in presentations included:

- a detailed overview of the development of the river system model for the Macquarie valley and how the model was used
- the predicted environmental outcomes of implementing the policy in the Macquarie valley
- the proposed rules for floodplain harvesting access licences to be included in the *Water Sharing Plan for the Macquarie and Cudgegong Regulated River Water Source*.

We also gave information on the public exhibition period and how stakeholders could make a submission.

Four days before the public exhibition and formal start of consultation, the department published a series of technical reports on its website:

- *Macquarie: Floodplain harvesting in water sharing plans – Report to assist community consultation*
- *Building the river system model for the Macquarie Valley regulated river system*

- *Floodplain Harvesting Entitlements for the Macquarie Regulated River System: Model Scenarios Report*
- *Environmental outcomes of implementing the Floodplain Harvesting Policy in the Macquarie Valley.*

These reports give the technical detail to support the implementation of the policy in the Macquarie. They include the modelling results used to determine entitlements, modelled environmental effects and outcomes for downstream communities.

The *Report to assist community consultation* explains the proposed types of rules for floodplain harvesting access licences in the Macquarie valley. This report is crucial for stakeholders who want to make an informed submission.

Public consultation

The department emailed stakeholders to notify them of the availability of these reports.

We invited these stakeholders to public consultation events:

- proposed floodplain harvesting licence holders
- farmers
- irrigators
- water user groups
- special interest groups
- Aboriginal community groups
- environmental groups
- the general public.

We did this through targeted emails, direct invitations through the department's contact database, local advertising, social media and website information.

Consultation purpose

The purpose of consultation was to:

- communicate the proposed rules for floodplain harvesting licences to be included in the *Water Sharing Plan for the Macquarie and Cudgegong Regulated River Water Source*.
- seek public feedback on these proposed rules
- ensure all stakeholders were given the opportunity to comment on the proposed rules before they were finalised
- provide a forum for stakeholders to communicate issues and assist with the effective implementation of the floodplain harvesting licensing framework
- enable the department to respond to stakeholders' concerns and, where appropriate, make changes to the rules before finalising them.

Targeted stakeholder engagement

To ensure broad and equitable engagement, we extended invitations to the webinar and targeted sessions to representative groups for:

- irrigators and other peak water users
- Indigenous nations
- environmental interests
- business interests

- Australian Government, NSW Government and other state government agencies
- individuals who had made previous submissions or had attended previous engagement sessions
- regional councils
- local, state and federal politicians.

The department held targeted stakeholder meetings that included representatives from:

- southern Basin
- environmental groups
- floodplain graziers
- northern Basin industry groups
- Australian and Basin state governments
- Aboriginal groups.

The information we presented was consistent for all targeted stakeholder group meetings.

Table 1 gives stakeholder and submission numbers.

Table 1. Number of stakeholders engaged

Engagement platform	Number
Webinar	35
Targeted meetings	41
Face-to-face meeting Warren (31 March 2021)	26
Face-to-face meeting Narromine (1 April 2021)	15
Submissions received	53

Final rules

We have developed the final set of rules for floodplain harvesting licences in the Macquarie based on the feedback from targeted consultation, submissions received and intended outcomes of licensing floodplain harvesting. Table 2 lists the final set of rules for floodplain harvesting (regulated river) access licences, along with their justification.

Table 2. Final water sharing plan rules and their justification for floodplain harvesting (regulated river) access licences

Rule	Justification
Initial available water determination (AWD) of 1 ML per unit share	Given the extensive flooding during the 2021/22 water year within the Macquarie Valley, an initial AWD (account initialisation) of greater than 1ML/unit share for the 2022/23 water year is no longer required.
Ongoing AWD of 1 ML per unit share.	An ongoing AWD of 1 ML per unit share is consistent with other licence categories.
The use of AWDs of less than 1 ML per unit share as required to adaptively manage floodplain harvesting.	To allow us to respond flexibly if water use increases the department may apply an AWD of less than 1 ML per unit share to ensure users comply with the extraction limit.
Account limit of 5 ML per unit share	<p>The department will apply a 5-year accounting framework to floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated River Water Source.</p> <p>The size of modelled entitlements for floodplain harvesting (regulated river) access licences is directly linked to the length of the accounting period. An annual accounting framework, with no ability to carry over water between years, will result in large entitlements. Conversely, a 5-year accounting framework would average out the water taken between years, resulting in comparatively smaller entitlements.</p> <p>The majority of stakeholders did not support the proposed 5-year account management rules. Of the stakeholders that did not support the proposed rule, many gave a reason that showed we need to explain more clearly the link between account management rules and entitlement size. Many incorrectly perceived the 5-year accounting framework to be inequitable and biased towards irrigators, allowing large volumes of water to be taken compared to shorter accounting periods.</p>
Permanent trade – within the declared floodplain	Permanent trade of floodplain harvesting (regulated river) access licences is restricted to within the extent of the Macquarie valley floodplain.
Permanent trade – trading zones increased from 7 to 8 and an increase in opportunities to trade between trading zones	The proposed trade rules included the establishment of 7 trading zones that largely reflect unregulated river water source boundaries. Permanent trade of floodplain harvesting (regulated river) access licences was largely restricted to within a trading zone, except into the Lower Macquarie River Downstream Management Zone and Marthaguy Creek Management Zone. This is consistent with existing trade rules for unregulated river access licences and is considered to contribute to the protection of the Macquarie marshes.

Rule	Justification
	<p>In response to stakeholder feedback, the department has increased opportunity for trade through 3 key approaches:</p> <ol style="list-style-type: none"> 1. Splitting of the Ewenmar Creek into an Upper Ewenmar Creek trading zone and Lower Ewenmar Creek trading zone to allow free trade between the Lower Ewenmar Creek and Gum Cowal trading zones. This split is based on differences in source water as the: <ol style="list-style-type: none"> a. Lower Ewenmar Creek generally receives water from the Macquarie River b. Upper Ewenmar Creek generally receives water from the unregulated river. 2. Allowing increased trade opportunities out of the Lower Macquarie River Upstream to encourage a reduction in entitlement near the Macquarie Marshes over the long-term. 3. Allowing free trade between the Lower Bogan Backwater and Marra Creek trading zones as the source water is generally the same. <p>The final trade rules and associated justification are shown in Table 3. The final trade zones are shown in Figure 1.</p>
<p>Permanent trade – no new nomination of works used for floodplain harvesting if located within management zones A and D established under the <i>Floodplain Management Plan for the Macquarie Valley Floodplain 2021</i></p>	<p>In developing trade rules, the department has considered identified areas with high environmental value and/or cultural values. These identified areas have been defined in the draft <i>Floodplain Management Plan for the Macquarie Valley Floodplain 2021</i> as Management Zones A and D.</p> <p>The department will apply a trade rule to floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated River Water Source that restricts the nomination of new works if the work is located within management zone A or D.</p> <p>The intended outcome of this rule is to limit to current levels the capability of existing works used for floodplain harvesting that are located within management zones A or D.</p>
<p>Granting or amending water supply work approvals nominated by a floodplain harvesting (regulated river) access licence</p>	<p>The following rules will be applied to applications for water supply work approvals that are, or are proposed to be, nominated by a floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated River Water Source. These rules are designed to support the trade rules.</p> <p>The department will not grant or amend a water supply work approval that is, or is proposed to be, nominated by a floodplain harvesting (regulated river) access licence if the water supply work is located or proposed to be located:</p> <ul style="list-style-type: none"> • outside the Macquarie Valley Floodplain, or • for new works – within management zones A or D, or • for existing works – within management zones A or D and the modification would result in an increased capacity for that work, or

Rule	Justification
	<ul style="list-style-type: none"> outside management zones A or D and would result in an increase in the rate of take for an existing work located within management zones A or D.
Active management	<p>A new suite of access rules called 'active management', is being implemented to protect water identified as active environmental water (AEW) from extraction in unregulated rivers so that it can remain in the water source for environmental purposes. Active management in the Macquarie is currently applied to unregulated river access licences located in the:</p> <ol style="list-style-type: none"> a) Lower Macquarie River Water Source <ol style="list-style-type: none"> a. Lower Macquarie River Upstream Management Zone b. Upper Macquarie River Upstream Management Zone c. Gum Cowal Management Zone. b) Marthaguy Creek Water Source. <ol style="list-style-type: none"> a. Lower Marthaguy Creek Management Zone. <p>There is an intersection between active management and floodplain harvesting where AEW creates overbank flows and an opportunity for floodplain harvesting. At public consultation, the department proposed access rules that restrict take when active management is being used to create overbank flows.</p> <p>These rules were widely supported by stakeholders as they are seen as a way to protect environmental water deliveries on the floodplain. A series of implementation issues were brought up during the consultation period and the department has refined its approach to the application of active management to floodplain harvesting based on the following:</p> <p>Apportioning flows on the floodplain</p> <p>During an actively managed event, some or all of the total volume of in-stream water will be AEW. Current models do not have the capability to accurately assess the portion of AEW that contributes to overbank flow and then travels to a specific floodplain harvesting property.</p> <p>The effect of this limitation is that we cannot accurately assess how AEW is contributing to floodplain harvesting access.</p> <p>As we cannot accurately assess this, we now propose that floodplain harvesting access licences will only be restricted when 100% of flows are AEW. In this circumstance, we can be sure that all floodplain harvesting access is attributable to AEW and restrictions are justified.</p> <p>Water sources assessment of AEW delivery</p> <p>The department conducted an assessment of AEW delivery in the Macquarie to determine the presence of days when 100% of flows in an actively managed water source were AEW.</p> <p>1. AEW in the Lower Macquarie River Water Source</p>

Rule	Justification
	<p>The department’s Environment, Energy and Science group (EES) coordinates environmental water delivery to this system, typically through sustained delivery of water at Marebone over weeks or months, either associated with or following natural tributary inflows, or as a stand-alone event consisting solely of releases from Burrendong Dam.</p> <p>Analysis of environmental water delivery data across the recent timeline shows that there are multiple circumstances where AEW is the only source of water in the Lower Macquarie River Water Source and is making up 100% of flows. This has occurred for 21% of the days between 1 July 2012 and 30 September 2019.</p> <p>EES has also provided inundation extent mapping that shows during these events with 100% AEW, overbank flows are created in the:</p> <ul style="list-style-type: none"> • Lower Macquarie Upstream Management Zone • Gum Cowal Management Zone <p>For this reason, we will implement active management for floodplain harvesting licences in the Lower Macquarie Upstream Management Zone and Gum Cowal Management Zone.</p> <p>EES indicated that the locations where overbank flow may occur in the Lower Macquarie Downstream Management Zone are dispersed throughout the management zone, making it difficult to confirm that overbank flow will occur. Further, there is currently no floodplain harvesting entitlement with works located in this management zone.</p> <p>For this reason, we will not implement active management for floodplain harvesting licences in the Lower Macquarie Downstream Management Zone. However, we will include an amendment provision to allow us to introduce active management if required in the future.</p> <p>2. AEW in Marthaguy Creek Water Source</p> <p>Environmental water deliveries must pass through the southern and eastern marshes before reaching Marthaguy Creek. Analysis of environmental water delivery data across the recent timeline shows that while there are multiple circumstances where AEW is making up 100% of flows, these occasions are not creating overbank flows. This has been confirmed by EES, who indicated that it is not possible to deliver water to this water source in a volume that is capable of breaking out of the river and creating opportunity for floodplain harvesting.</p> <p>For this reason, we will not implement active management for floodplain harvesting licences in Marthaguy Creek Water Source.</p> <p>The final rules for implementation of active management on floodplain harvesting access licences is restricted to:</p>

Rule	Justification
	<p>Lower Macquarie Upstream Management Zone and Gum Cowal Management Zone when</p> <ul style="list-style-type: none"> • AEW is being used to create overbank flows, and • 100% of water in the water source is attributable to AEW. <p>This timeframe is being established and will be communicated with the commencement of the Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source.</p>
<p>Amendment provisions to allow us to introduce access rules when we have more information</p>	<p>Current modelling practices do not adequately represent the return of floodplain flows to the river. Without this information, the department cannot accurately calculate the floodplain's additional contribution to end-of-system flows. This information is critical for the development of access rules for floodplain harvesting (regulated river) access licences.</p> <p>Because of the current difficulty in developing and implementing access rules for floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated River Water Source, the department will include amendment provisions that allow us to include access rules in the future when we have the appropriate information base and management tools.</p>
<p>Amendment provisions to allow us to introduce access rules to improve connectivity</p>	<p>In March 2021, the department made a public commitment to do the work required to develop and implement access rules that aim to improve connectivity in the northern inland basin. This will involve:</p> <ul style="list-style-type: none"> • publication of new draft connectivity triggers • review of existing targets within the North-west Unregulated Flow Management Plan • public consultation by 1 January 2022. <p>This work could affect multiple licence categories and we will include an amendment provision in all water sharing plans, regardless of whether floodplain harvesting licences are being issued or not, that allows us to include connectivity rules.</p>
<p>Amendment provisions to allow for trade-to rules to be modified in the future</p>	<p>The department will include amendment provisions to allow for the modification of existing trade rules or inclusion of new trade rules, based on improved information.</p>
<p>Amendment provisions to allow for expansion of active management</p>	<p>The department will include amendment provisions to allow for the expansion of active management into the Lower Macquarie Downstream Management Zone.</p> <p>This provision can be used if the ability to target environmental releases to create overbank flow in this management zone develops in the future.</p>
<p>Amendment provisions to allow the use of AWDs to adaptively manage floodplain harvesting.</p>	<p>The department will include amendment provisions to allow AWDs of greater than 1 ML per unit share. This provision can be used if the accuracy of calculating the extraction limit improves.</p>

Final trade rules

Table 3. Final trade rules for floodplain harvesting in the Macquarie

From trade zone	To trade zone	Explanation of change	Trade within (no change)
Marthaguy Creek	Lower Macquarie River Downstream	No change	Permitted
Lower Macquarie River Upstream	Lower Macquarie River Downstream Gum Cowal Marthaguy	Promote reduction in entitlement around marshes over the long-term. Provide increased trade opportunities, based on feedback.	Downstream direction only
Gum Cowal	Lower Macquarie River Downstream Marthaguy	No change	Downstream direction only
Marra Creek	Lower Bogan Backwater	Same source water Provide increased trade opportunities, based on feedback	Permitted
Lower Bogan Backwater	Marra Creek	Same source water Provide increased trade opportunities, based on feedback	Permitted
Lower Ewenmar Creek	Gum Cowal	Same source water Provide increased trade opportunities, based on feedback	Permitted
Upper Ewenmar	Not permitted	No change	Permitted
Gum Cowal	Lower Ewenmar Creek	Same source water Provide increased trade opportunities, based on feedback	Permitted

Final trading zones

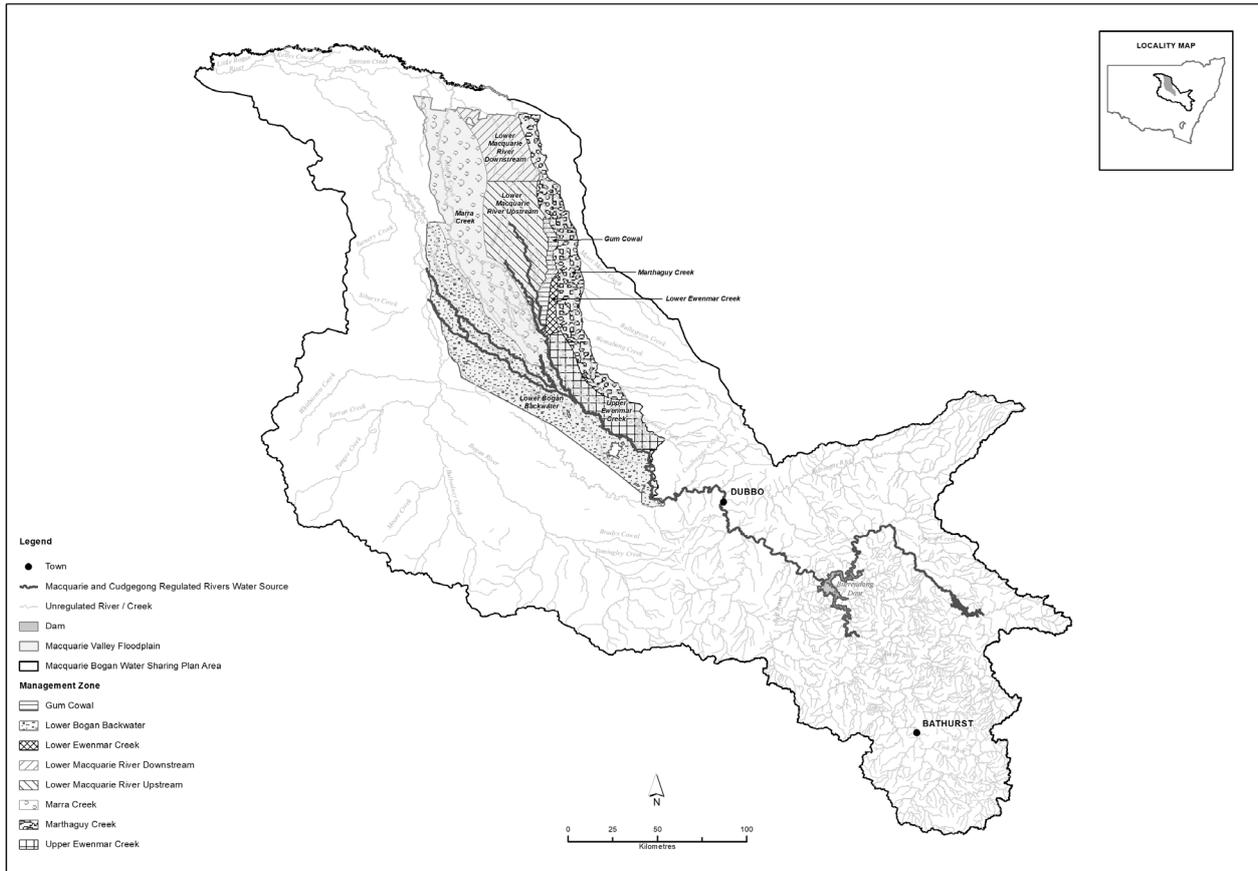


Figure 1. Final trading zones in the Macquarie valley

What we heard – stakeholder responses

General

Table 4 outlines feedback the department received across multiple consultation sessions and throughout submissions about the proposed rules. Some of the concerns that were raised in the Border Rivers and Gwydir submission processes were also raised in the Macquarie.

Table 4. Recurring themes raised about the proposed rules

Theme	Description	Department response
Modelling	<p>Stakeholders raised concerns about data deficiencies and model uncertainty and limitations. Stakeholders asked a lot of questions about the modelling and sought clarification about the reliability and accuracy of specific datasets.</p> <p>Stakeholders noted the limitations of the models the department currently uses, which limit the estimation of return flows, downstream impacts of flows and stream gauges. The other key issue raised about modelling is the lack of information for losses in the landscape between the farm and river gauge.</p>	<p>Water management in NSW (and globally) relies on models to provide robust and reliable estimates of what water is available, how much is needed, and how the resource can be equitably shared.</p> <p>The Healthy Floodplains Project has invested significant resources to upgrade river models to reflect floodplain harvesting. Models have been upgraded using the best available information, multiple sources of data and then subjected to an independent review process. The department has published the results of the independent review for the Macquarie model on our website.</p> <p>The department can confirm that we are continually updating models as better information becomes available. This is part of a program of continual improvement.</p>
Account management	<p>Concerns were raised about the complexities of the account management rules and a need for a clearer explanation of the linkage between the account management rules, modelled entitlement size and risk to the environment and downstream systems. The need for clear communication around this was emphasised.</p>	<p>The department acknowledges that we need to make account management rules across all valleys clearer. The department recognises that the linkage between account management rules and entitlement size is counter-intuitive.</p> <p>The department has developed an account management animation to illustrate and clearly explain the account management rules. The department asked for feedback on this issue and how we could improve our communication of the account management rules to make them easier to understand.</p>
Trade	<p>Stakeholders showed considerable interest in the proposed trade rules and believed there should be free and open trade up and down the floodplain.</p>	<p>While free trade is the preferred position of the <i>Basin Plan 2012</i>, the establishment of trade rules is particularly important in water sources with sensitive environmental areas. Valleys such as the Gwydir and Macquarie contain highly sensitive, internationally</p>

Theme	Description	Department response
	<p>Some stakeholders believed that temporary trade should be allowed between related or same businesses and/or ownership.</p>	<p>recognised Ramsar wetlands. Trade of entitlement that results in concentration upstream of these locations could decrease inflows and impact environmental outcomes. However, the department has assessed the proposed trade rules and increased opportunity for trade in some areas – see Table 3.</p> <p>The department has proposed trade rules that aim to achieve 2 outcomes:</p> <ol style="list-style-type: none"> 1. preventing concentration of entitlement in areas where extraction may impact sensitive environmental areas, such as the Macquarie marshes 2. protection of identified areas that are important for flood flow connectivity or contain identified environmental or cultural assets or values. <p>The intent and application of these trade rule has been well supported by stakeholders.</p> <p>Temporary trade is not permitted, consistent with the <i>NSW Floodplain Harvesting Policy</i>. This is due to the episodic nature of floodplain harvesting events and unique on-farm conditions. Further, there may be instances where works capable of floodplain harvesting will require modification to prevent further floodplain harvesting if a trade out occurs. This would be difficult to do on a temporary basis.</p>
Connectivity	<p>Some stakeholders believed the licensing of floodplain harvesting in the Macquarie Valley will not protect enough flows to help in the recovery of the environment and downstream connectivity flows required to repair long-term impacts.</p> <p>Other stakeholders believed that the potential economic and social costs to the community as a result of developing and implementing proposed access rules for floodplain harvesting licences would outweigh the benefits the rules might have downstream.</p>	<p>The department has heard the need for connectivity rules that recognise the interdependent nature of northern Basin water sources. We have recognised this need across valleys and through consultation on multiple components of water management.</p> <p>As a response to this, in March 2021 the department made a public commitment to do the work required to develop and implement access rules that aim to improve connectivity in the northern inland basin.</p> <p>Concerns about ‘connectivity’ were</p>

Theme	Description	Department response
		<p>one of the key reasons leading to the Parliament of NSW's disallowance of the floodplain harvesting regulations in May 2021 and February 2022. Further stakeholder consultation on rules that prevent floodplain harvesting when there is downstream critical human and environmental needs is proposed.</p> <p>We will include an amendment provision in all water sharing plans, regardless of whether floodplain harvesting licences are being issued or not, that allows us to include connectivity rules.</p> <p>A summary of the commitments and associated timing is provided below and can be found at www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions</p> <ul style="list-style-type: none"> •

In response to proposed rules for floodplain harvesting (regulated river) access licences

Available water determinations

At the beginning of the water year, the Minister for Water, Property and Housing determines the volume of water that is to be credited to each licence category through what is known as an available water determination (AWD). The AWD varies from year to year and between licence categories, and is dependent on a range of factors including dam storage levels and an assessment of average annual extraction against the extraction limit.

Initial available water determination

Historically, an AWD greater than 1 ML per unit share has been applied to some access licence categories in the first year following the start of a water sharing plan. This recognises the potential carryover from previous years, use of long-term averages in determining the entitlement and the associated need to take more in some years and less in others.

The department did not propose a value for the initial AWD for floodplain harvesting (regulated river) licenses in the Macquarie. Instead, we invited feedback on 1 ML per unit share or more than 1 ML per unit share.

The majority of stakeholders supported an initial AWD of 1 ML per unit share in submissions for floodplain harvesting (regulated river) licenses. Stakeholders supported account initialisation to transition water users and communities into the reform. It was believed to minimise the short-term socio-economic impacts of implementing a reform designed to reduce long-term take. Stakeholders requested more information on the reasons and outcomes for each initial AWD option. Table 5 and Table 6 list the main reasons stakeholders gave for supporting or opposing the proposed initial AWD.

Table 5. Reasons for supporting the proposed initial available water determination of 1 ML per unit share

Feedback	Department response
Stakeholders noted an initial AWD of 1 ML per unit share would be the most effective way to manage floodplain harvesting in the short-term to ensure outcomes for flood-dependent ecosystems, downstream communities, and groundwater recharge. It was thought to be a more environmentally sensible approach and better aligned with the sustainable use of water.	Noted.
An initial AWD of 1 ML per unit share was thought to be clear, simple and transparent. This would also help assess how the floodplain harvesting licensing framework will work.	Noted.
There was support for an initial AWD of 1 ML per unit share. This was thought to be consistent with other water sharing plans. Stakeholders requested consistent initial AWDs across the 5 northern valleys where the floodplain harvesting licensing framework is being rolled out.	Noted. We are developing rules on a valley-by-valley basis and as a result there may be different outcomes and rules applied that relate to local circumstances.
Stakeholders believed an initial AWD of 1 ML per unit share to be consistent with the precautionary principle.	Noted.

Table 6. Reasons for supporting the proposed initial available water determination of more than 1 ML per unit share

Feedback	Department response
An initial AWD of more than 1 ML per unit share is required to transition water users and communities to reduced floodwater access.	Noted. The recent extensive flooding through 2021/22 has significantly mitigated this concern.
The Macquarie valley is below the long-term annual average extraction limit and, as a result, irrigators should be able to continue to extract at current levels. An initial AWD of greater than 1 ML per unit share is needed in the event of a flood occurring in the first few years of implementation.	The department considers an initial AWD of 1 ML per unit share to be a balanced approach that considers the needs of the environment as well as social and economic considerations in the Macquarie valley.
The initial AWD should be based on the account balances modelled to occur if licensing was introduced in the past.	The department is taking a principles-based approach to the determination of initial AWD values. Modelled account balances are one of the 4 considerations outlined below:

Feedback	Department response
	<ol style="list-style-type: none"> 1. Environmental criteria, including the requirements for an in-valley first flush and the meeting of downstream environmental targets 2. Economic recovery, including the recent availability of supplementary flows 3. Modelled account balances 4. Growth in floodplain harvesting above plan limits.

Ongoing available water determinations

Most licence categories specify an AWD of 1 ML per unit share for each year after the first water year (or a lower amount if required to ensure users comply with extraction limits).

The department needs to respond flexibly if water use increases. To allow for this, a limit of 1 ML per unit share, or less if required to comply with extraction limits, is proposed for AWDs for floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated River Water Source after the first water year.

Many stakeholders supported a flexible ongoing AWD as a valuable management tool. Other feedback suggested there was a general lack of trust in the department to equitably determine allocations. Table 7 and Table 8 list the main reasons stakeholders gave for supporting or opposing the proposed ongoing AWDs.

Table 7. Reasons for supporting the proposed ongoing available water determinations

Feedback	Department response
<p>Stakeholders supported an adaptive management approach.</p> <p>Adaptive management was seen to be important to enable the department to manage levels of floodplain harvesting to within the sustainable diversion limit.</p>	<p>The proposed AWD framework allows the department to respond flexibly if water use increases</p> <p>We can apply an available water determination of 1 ML per unit share or less to ensure users comply with any extraction limits.</p>
<p>Flexibility and responsiveness are critical to manage growth in water use and enable compliance with sustainable limits.</p>	<p>Noted.</p>
<p>Until full uptake of floodplain harvesting metering is complete, the diversion volumes will not be accurately known. Adaptive management was considered important so there is room to amend water determinations as our understanding and data improves.</p>	<p>Improved metering and measurement of floodplain harvesting extractions will give the department important data. The department will incorporate the new metering data into existing models, improving the ability to better manage floodplain harvesting to within legal limits.</p>

Table 8. Reasons for opposing the proposed ongoing available water determinations

Feedback	Department response
<p>The proposed flexible AWD provisions undermine the certainty that a clear set of rules</p>	<p>Noted.</p>

Feedback	Department response
gives by allowing the rules to change with circumstances.	
Adaptive management provisions are best applied to supplementary water take.	Supplementary water access licences in the Macquarie are already subject to flexible ongoing available water determinations. This mechanism allows the department to reduce valley-wide diversion to keep it within legal limits.

Account management rules

Account management rules vary across NSW and between categories of access licences. However, they generally consist of a combination of limits on the amount of water that may be:

- taken annually or over a number of consecutive years, or both, or
- held in an allocation account at any time, or
- carried over from one year to the next.

The department proposed an account limit of 5 ML per unit share for floodplain harvesting (regulated river) access licences in the Macquarie and Cudgegong Regulated River Water Source.

The department proposed 5-year account management arrangements because they:

- control current growth
- provide the best level of protection against future growth
- deliver a range of positive environmental benefits
- give licence holders flexibility.

There was still a need for the department to explain the account management rules more clearly. Some stakeholders mistakenly thought that 5-year accounting would result in a larger volume of water being taken. We need to explain more clearly the linkage between the account management rules, modelled entitlement size, risk to the environment and downstream systems, and potential for growth.

The majority of stakeholders did not support the proposed 5-year account management rules. Of the stakeholders that did not support the proposed rule, many indicated that the department should better explain the link between account management rules and entitlement size. Many incorrectly perceived the 5-year framework to be inequitable and biased towards irrigators, allowing large volumes of water to be taken compared to shorter accounting periods.

Annual and 5-year accounting produce the same long-term outcomes. A 5-year accounting framework, however, allows for better risk management for growth above plan limits.

Floodplain harvesters felt that if they had already been advised of their individual entitlements, they would be more able to comment on the proposed accounting framework. This was echoed in targeted stakeholder meetings, face-to-face sessions, and written submissions. We advised stakeholders that account management rules need to be determined before we can communicate draft individual entitlements.

Table 9 and Table 10 list the main reasons stakeholders gave for supporting or opposing the proposed account management rules.

Table 9. Reasons for supporting the proposed account management rules

Feedback	Department response
Stakeholders stated that 5-year account management rules align well with the variable and episodic nature of floodplain harvesting events. They also allow management of take in accordance with the size of the flooding event.	Five-year accounting rules provides a high level of flexibility for landholders who can carry over any unused allocation between years. Water can be carried over until the account limit of 5 ML per unit share is reached. This allows for the better management of take over the long-term and the 5-year period mimics the availability of water during a flood event.
Stakeholders indicated that the proposed rules ensure flexibility between flood and drought conditions while still limiting take to within long term legal limits.	Noted.

Table 10. Reasons for opposing the proposed account management rules

Feedback	Department response
There were some concerns that 5-year account management favour large irrigators at the expense of other water users in the Basin.	Five-year accounting results in smaller entitlements that reflect an average form of take. Modelled entitlements will be produced through a transparent, equitable process in accordance with established legislation. There is no scope for favouritism or inequity between water users.
Some stakeholders did not support the proposed account management rules as they believed that this framework would result in the taking of 500% of a licensed entitlement in one year. They believed that this does not comply with the principles of the <i>Water Management Act 2000</i> .	Unregulated river access licences in the northern Basin can currently take up to 300% of their licenced entitlement in one year. However, for this to happen, a licence holder must not have taken water for the preceding 2 years. Similarly, under the proposed floodplain harvesting (regulated river) accounting framework, an annual take of up to 500% is possible. For this to happen, a landholder must not have taken water for the preceding 5 years and have built their account balance through this unused water. This is consistent with existing rules for other categories of access licence in the northern basin and principles of the <i>Water Management Act 2000</i> .
There were some concerns that 5-year account management allows access to higher volumes of water.	Modelling shows that long-term diversions are the same for 5-year and annual accounting. This is because entitlement size is directly related to the accounting period. Licences issued under 5-year accounting are approximately 3 times smaller than those issued under an annual accounting framework.

Trade rules

There are rules that govern the permanent trade of water entitlements. These rules vary from valley to valley, depending on the unique ecological and hydrological characteristics that need protection. In the Macquarie valley, the Macquarie Marshes have been identified and targeted for protection through the proposed trade rules.

The department proposed to establish rules that restrict the permanent trade of floodplain harvesting (regulated river) access licences that largely reflect the trade rules for unregulated river access licences. This will ensure consistency, equality of rights and access to the water source.

The department has identified areas of high environmental, cultural, and hydrological value as part of the designation of floodplain management zones A and D in the draft *Floodplain Management Plan for the Macquarie Valley Floodplain 2021*. Based on these identified areas of value, the department proposed to establish a trading zone that reflects management zones A and D in the draft *Floodplain Management Plan for the Macquarie Valley Floodplain 2021* and to restrict permanent trade of entitlement onto works that are located in those zones.

Stakeholders largely supported the proposed trade rules and recognised the need for protection of environmentally and culturally important areas. The principle of protecting the Macquarie Marshes was supported. Some stakeholders supported trade of floodplain harvesting (regulated river) entitlements but regarded the proposed trading zones as too restrictive, believing they will result in inequitable outcomes for landholders. Alternate trading mechanisms were suggested by stakeholders that allowed valley-wide trade but adjusted the floodplain harvesting share component based on frequency of access.

Table 11 and Table 12 list the main reasons stakeholders gave for supporting or opposing the proposed trade rules.

Table 11. Reasons for supporting the proposed trade rules

Feedback	Department response
Trading zones and prohibition of trade between zones was supported. Stakeholders noted it is important to protect areas of high environmental and cultural value from increased water extraction.	Trade rules are established in water sharing plans to protect sensitive areas from extraction. The department has specifically designed floodplain harvesting trading rules to protect environmental assets that are identified in each valley.
The environmental value of the floodplain was highlighted and stakeholders noted the importance of protecting this ecosystem from increased floodplain harvesting resulting from trade.	As above.
Permanent trade was supported but only after the start of the floodplain harvesting licensing framework, including metering and monitoring and updated modelling.	The licensing and measurement frameworks are being rolled out simultaneously with proposed water sharing plan rules to guide trade. Amendment provisions will allow us to make changes as a result of improved data or updated modelling.

Table 12. Reasons for opposing the proposed trade rules

Feedback	Department response
Stakeholders perceive the proposed trade rules as too restrictive and not 'fit for purpose'. They were	The department has reviewed the proposed trading zones and increased the amount of them, along

Feedback	Department response
not thought to allow for an equitable allocation of available water.	with additional opportunities for trade to occur. These trading zones provide opportunity for trade while also protecting sensitive environmental areas from concentration of entitlement.
Several stakeholders do not support the trade of floodplain harvesting licences; however, they understand that trade of water entitlements is required under the Basin Plan.	<p>The Basin Plan water trading rules contribute to achieving the Basin water market and trading objectives set out in Schedule 3 of the <i>Water Act 2007</i>. Free trade of surface water is required except where establishing a restriction is required due to a physical constraint, lack of connectivity, or because the environment may be harmed.</p> <p>While free trade is a desired outcome, the establishment of trade rules is particularly important in water sources with sensitive environmental areas. Valleys such as the Macquarie and Gwydir contain highly sensitive, internationally recognised Ramsar wetlands. Trade of entitlement that results in concentration upstream of these locations could decrease inflows and impact environmental outcomes.</p>
Multiple stakeholders proposed an alternate trading mechanism that adjusted floodplain harvesting share components based on frequency of access.	The department has previously used trading mechanisms that adjust licence shares after trades in regulated river systems. This approach is not consistent with clauses 12.21 – 12.22 of the <i>Basin Plan 2012</i> .
Issues were raised with the modelling and mapping used to delineate zones in the <i>Floodplain Management Plan for the Macquarie Valley Floodplain 2021</i> .	The modelling and mapping of the Macquarie valley floodplain was completed using the best available information and most up-to-date modelling methodology. The department is committed to a process of continual improvement and will be reviewing all floodplain management plans after 5 years.
<p>There was support for trade by stakeholders but lack of support for the proposed trading zones.</p> <p>There was confusion about properties that are located across multiple trading zones.</p>	<p>The proposed trading zones largely reflect the unregulated river water source boundaries. The zones have been established in a way that provides opportunity for trade while also protecting sensitive environmental areas.</p> <p>Properties that span 2 trading zones will be designated a single trade zone, based on the location of the majority of their eligible works used for floodplain harvesting.</p>

Active management

Active management is used to protect water that is identified as active environmental water as it flows through an unregulated river water source. The department proposed to restrict take under a floodplain harvesting (regulated river) access licence if:

- the take occurs through works that are in a management zone where active management applies
- active management is being used to purposefully create overbank flow.

These rules will be implemented as mandatory conditions on floodplain harvesting (regulated river) access licences.

Stakeholders largely supported active management for floodplain harvesting access licences. The main feedback through targeted consultation and submissions is that we need to do more further work to refine the implementation of the rules. This feedback came from both stakeholders supporting and not supporting the proposed rule.

Since public consultation, the proposed scope of active management implementation in the Macquarie **has changed**. This is based on the provision of additional data on environmental water releases through actively managed areas. Please see the 'Final rules' section for more information.

Table 13 and Table 14 list the main reasons stakeholders gave for supporting or opposing active management.

Table 13. Reasons for supporting active management as proposed

Feedback	Department response
<p>There was broad support for rules that protect both held environmental water (HEW) and planned environmental water.</p> <p>Stakeholders noted that protecting this water is a requirement under the toolkit measures agreed to in the Northern Basin Review of the Basin Plan.</p>	<p>Noted.</p>
<p>Active management should protect all HEW from extraction; not just when the proportion in the water source is 100%.</p>	<p>During an actively managed event, HEW may make up some or all of the total volume of water in-stream.</p> <p>Current models do not have the ability to accurately assess the portion of HEW that contributes to overbank flow and then travels to a specific floodplain harvesting property.</p> <p>The impact of this limitation is that we cannot accurately assess how HEW is contributing to floodplain harvesting access. To ensure a precautionary approach is taken to restricting access, in the absence of the appropriate capabilities, we propose that floodplain harvesting access licences will only be restricted when 100% of flows are actively managed water.</p>
<p>Active management should better protect all forms of environmental water.</p>	<p>Active management is a new suite of access rules that are being implemented to protect HEW from extraction in unregulated rivers. Active management identifies the volume of water in each water source that needs to be protected from extraction (active environmental water), adjusts access levels to protect that active environmental water and announces access to the water source.</p>

Feedback	Department response
	This new access regime came into effect 1 July 2020 and is in its early stages. An annual review process has been established to improve the implementation of active management based on the provision of improved data and updated modelling resources.

Table 14. Reasons for opposing active management as proposed

Feedback	Department response
<p>Although clear rules to protect environmental water were supported, stakeholders believe active management adds another layer of complexity in managing water in highly variable systems.</p> <p>The impact of this rule on those being restricted, and on the valley compliance limit, has not been determined or considered.</p>	<p>Active management will be implemented in a small portion of the Macquarie. Restrictions that occur because of active management are not anticipated to significantly impact the level of floodplain harvesting take or the valley compliance limit. These rules are about event-based management and protection of HEW as it moves across the floodplain.</p>
<p>Some stakeholders did not support active management due to the limited information available or lack of systems in place to implement a fair and equitable approach to active management for floodplain harvesting.</p>	<p>The department will implement active management in a timeframe that allows for the development of appropriate systems and process.</p> <p>This timeframe is being established and will be communicated with the commencement of the Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source.</p>
<p>Stakeholders felt that active management, as a new concept for the department, requires more time to be developed and assessed and more evidence on long-term outcomes is required.</p>	<p>As above.</p>

Amendment provisions

Section 45 of the *Water Management Act 2000* allows the department to amend water sharing plans. To improve transparency and increase confidence amongst stakeholders, we propose including specific amendment provisions that allow for the introduction of access rules:

- a) to allow flexibility, should environmental flows be targeted to create overbank flow, or
- b) in response to monitoring, evaluation and reporting outcomes of environmental benefits from licensing floodplain harvesting, or
- c) in response to improved understanding of the influence of floodplain harvesting on downstream flows, or
- d) in response to work undertaken as part of the departmental commitment to improve connectivity in the northern Basin.

Amendment provisions were well supported by stakeholders through submissions and during the targeted consultation process. Stakeholders who supported the proposed amendment provisions regarded them as essential to provide the flexibility required to make changes as improved data

becomes available. Table 15 and Table 16 list the main reasons stakeholders gave for supporting or opposing the proposed amendment provisions.

Table 15. Reasons for supporting the proposed amendment provisions

Feedback	Department response
Stakeholders requested amendment provisions that allow changes to be made as a result of updated modelling that shows floodplain harvesters are not realising their long-term extractions.	Adaptive management provisions for ongoing available water determinations have been proposed that will allow for increased or decreased allocations (above or below 1 ML per unit share). These increased or decreased allocations can be used as a response mechanism to modelling updates that show a change in historic long-term floodplain harvesting diversions.
Stakeholders generally supported the principle of including amendment provisions where modelling and data could not support rule development. Stakeholders requested the opportunity to provide feedback via consultation on any amendments that are proposed in the future.	This is in line with the department's approach to continuous improvement approach for water sharing plan development. We value community feedback and strive to provide the opportunity for stakeholders to have their say.
Stakeholders noted that amendment provisions will allow more flexibility and responsiveness. 'Locking in' rules for 10 years was thought to be unwise in current climatic and ecological conditions.	Noted.

Table 16. Reasons for opposing the proposed amendment provisions

Feedback	Department response
Stakeholders believe that the proposed amendment provisions undermine the certainty that a clear set of rules gives when they are not subject to change. The uncertainty makes forward planning difficult while eroding commercial and community viability.	All water sharing plans may be amended under section 45 of the <i>Water Management Act 2000</i> . We have included the proposed amendment provisions to make the future direction of floodplain harvesting rules clear. Examples of improved information include results from the department's monitoring, evaluation and reporting program, or broader departmental actions, such as the work being undertaken in response to the First Flush Report or the implementation of the Unregulated Flow Management Plan for the North West.
Some stakeholders indicated that their support of water reform processes is eroded by amendment provisions. Amending plans was thought to be against the <i>Water Management Act 2000</i> principle of implementing balanced outcomes.	As above.

Feedback	Department response
The uncertainty created by amendment provisions causes business uncertainty rather than business confidence.	

Default and other rules

The department detailed a series of default rules that are required in water sharing plans. We gave these rules for context; they were not subject to the outcomes of consultation.

Table 17 outlines the final default rules and others, as well as their justification.

Table 17. Final default rules and others, and their justification

Rule	Justification
Application of the plan	Ensure the water sharing plan applies to floodplain harvesting (regulated river) access licences with a share component that specifies the Macquarie Cudgegong Regulated River water source.
Compliance with the extraction limit	This rule will ensure we can reduce allocations for floodplain harvesting (regulated river) access licences in response to any exceedance that has occurred within those licences or growth in regulated river (general security) access licences if it results in an exceedance of the limits specified in the plan.
No temporary trade	This is consistent with the <i>NSW Floodplain Harvesting Policy</i> .
Mandatory condition on floodplain harvesting access licences	Floodplain harvesting (regulated river) access licences can only take water from overland flow.

Next steps

The department will amend the relevant water sharing plans to ensure the rules for access licences are included and can be applied. An amendment order or remake for the relevant water sharing plan will be made. Any amendment or remake will require approval by the NSW Minister for Water and agreement from the NSW Minister for the Environment.

As a result of the inclusions to the water sharing plans for floodplain harvesting, the department will need to amend the relevant water resource plan. The department must then submit the amended water resource plan to the Murray–Darling Basin Authority for reaccreditation.

Appendix 1 – Broader issues

Table 18. Broader issues raised during public consultation on the rules for floodplain harvesting in the Macquarie

Issue	Department response
<p>Stakeholders were concerned about the socio-economic impacts that floodplain harvesting regulation would have on water users and communities.</p>	<p>The department acknowledges the feedback received; however, the regulation of floodplain harvesting is about necessary reductions in take to counteract growth and return diversions to legal limits.</p> <p>Valleys that have grown above legal limits will see reductions. In valleys such as the Macquarie, which is within legal limits, floodplain harvesting will be licensed to a level equivalent to what could be taken by eligible works.</p>
<p>There was general stakeholder concern about the modelling approach. The department needs to communicate more effectively about the data used so that stakeholders can understand and have confidence in it.</p>	<p>The department acknowledges that there is a significant amount of interest in the models used in implementing the <i>NSW Floodplain Harvesting Policy</i>.</p> <p>For more information on how the Macquarie model was built, the information used and level of accuracy, refer to the Building the Macquarie Valley River System Model Report, which is available on our website, www.industry.nsw.gov.au/water</p>
<p>What are the environmental benefits from the policy?</p>	<p>The <i>NSW Floodplain Harvesting Policy</i> aims to return water take to within legal limits. In valleys where take has exceeded legal limits, the licensing framework will cause reductions, leaving more water in floodplains and returning to rivers and creeks.</p> <p>As take in the Macquarie is below legal limits, the policy will not return significant volumes of water to the system. The environmental outcomes analysis shows few immediate benefits across the floodplain.</p> <p>There will be an ongoing monitoring, evaluation reporting (MER) program to determine ecological change over time. Licensing is the fundamental building block for improved management. Metering and monitoring will allow us to improve the management of floodplains in the future to better protect the environment and balance the interests of competing users.</p>
<p>Climate change has not been factored into any modelling scenarios throughout the determination of floodplain harvesting accounting rules, despite the new robust climate/hydrologic datasets</p>	<p>The regional water strategies have undertaken a huge step in improving our understanding of how climate change will impact water management in</p>

Issue	Department response
<p>developed by the department last year for inclusion in the regional water strategies (RWS).</p>	<p>NSW. At the time the environmental outcomes reports were developed and the approach agreed upon, the regional water strategy model outputs were not available.</p> <p>Addressing climate change will be a major change in our approach to water sharing planning that affects all water users and is much broader than floodplain harvesting. This will be approached holistically as part of implementation of regional water strategies.</p> <p>The department has, however, proposed flexible ongoing available water determination rules that can be used to adaptively manage the level of floodplain harvesting diversions into the future, if required.</p>
<p>In recent years, stakeholders have started hearing water departments and agencies claiming that the long-term average annual extraction limit (LTAAEL) and sustainable diversion limit (SDL) are definitions, not volumes. This was not the previous understanding of the community.</p>	<p>Each water sharing plan has its own LTAAEL and each water resource area its own SDL. These legal limits are not a fixed volume. Instead, they are a definition that reflects the development and management conditions in the area at a given point in time, usually the 1993–94 or 1999–2000 water year. The legal limits intend to cap water take at a level equivalent to what was occurring at that time.</p> <p>The department uses modelling to look back at that period and assess what volume could be diverted and establishes that as the extraction limit. If our modelling or understanding of historical take changes, then so will the legal limit volume.</p>
<p>As raised previously in the Border Rivers and Gwydir submission process, some stakeholders also in the Macquarie believe that the proposed rules are biased towards irrigators.</p>	<p>The department disagrees with this sentiment. The proposed rules will significantly reduce floodplain harvesting in the Border Rivers and Gwydir valleys, resulting in more water returning to floodplains, rivers and creeks. We predict that this additional water returning to the floodplain, rivers and creeks will result in significant environmental improvements.</p> <p>The water sharing rules have been developed in accordance with the water management principles contained in the <i>Water Management Act 2000</i>. The department is running a transparent, equitable consultation process in accordance with established processes. There is no scope for favouritism or inequity between water users.</p>
<p>Stakeholders felt that the proposed rules fail to meet the objectives of the legislation.</p>	<p>The department disagrees with this sentiment and will be publishing a document specific to each water sharing plan that describes how and why the water</p>

Issue	Department response
	sharing plan meets the requirements of the <i>Water Management Act 2000</i> .
Floodplain harvesting access must be restricted until end-of-system flow targets are met.	<p>The department has heard the need for connectivity rules that recognise the interdependent nature of northern Basin water sources. This need has been recognised across valleys and through consultation on multiple components of water management.</p> <p>As a response to this, in March 2021 the department made a public commitment to do the work required to develop and implement access rules that aim to improve connectivity in the northern inland basin. This work will include updates to the models to reflect flows returning from the floodplain to rivers and creeks.</p> <p>Concerns about ‘connectivity’ were one of the key reasons leading to the disallowance of the floodplain harvesting regulations in May 2021. Further stakeholder consultation on rules that prevent floodplain harvesting when there is downstream critical human and environmental needs is proposed.</p> <p>We will include an amendment provision in all water sharing plans, regardless of whether floodplain harvesting licences are being issued or not, that allows for connectivity rules to be included.</p> <p>Refer to the summary of the commitments and associated timing at www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions</p>
Is there a mechanism to appeal the size of my licence?	<p>Once landholders receive their draft entitlement, there is a 28-day period in which they can challenge the assessment of that entitlement and provide additional evidence.</p> <p>The process for determining entitlement has been extensive and comprehensive. Over the past 12 to 18 months the department has undertaken a farm-scale validation process, which has included remote sensing using satellite imagery and on-farm inspections. The process included steps that allow licence holders to review the department’s evidence and challenge its measurements. An independent review committee was also established to review submissions and give a third-party perspective.</p>
A number of ineligible works have been identified in the Macquarie Valley. Will the NSW Government consider retrospective approvals in any of these cases?	Ineligible works will not be considered for retrospective approvals.

Issue	Department response
	The Natural Resources Access Regulator and the department are working together to identify and respond to unapproved floodplain structures. An ongoing program of work commits to this from 1 July 2021.
There was a lack of trust in the department and calls for more transparency, and accountability.	<p>The department is committed to managing water equitably and transparently and engaging with stakeholders broadly.</p> <p>As part of this public exhibition, the department has held a public webinar, a series of 5 targeted stakeholder meetings and 2 face-to-face meetings to discuss and seek feedback on the proposed rules. Four peer-reviewed technical reports and a report to assist community consultation were published as part of the public exhibition. The final set of rules were based on the targeted consultation, submissions received and intended outcomes of licensing floodplain harvesting.</p>
Many stakeholders believe that there should be an embargo on floodplain harvesting until infrastructure to monitor and measure the amount of water extracted can be installed.	The department is rolling out an accurate, robust and tamper-proof measurement system for floodplain harvesting. This is timed in parallel with the implementation of the licensing framework. Water cannot be taken under a floodplain harvesting access licence unless it is appropriately measured.
First Nations communities are disadvantaged under the current policy setting and the entire water reform process. Indigenous voices need to be heard.	The Northern Basin Aboriginal Nations (NBAN) have been engaged by the department to undertake consultation and engagement with First Nations people on the draft floodplain harvesting rules that are to be included in the water sharing plans across all 5 northern basin valleys. The <i>Floodplain harvesting and Indigenous Nations in the Northern Murray-Darling Basin: Community consultation outcomes report</i> will be published on the department's website and outline the predicted outcomes from licensing floodplain harvesting from a First Nations' perspective. It will also detail how cultural values, assets and uses can be better protected.
Rainfall runoff exemption is free, unaccounted for water that is not available to any landholder or farming business in NSW other than those with access to floodplain harvesting.	Under the exemption, rainfall runoff that is captured in a tailwater drain is exempt from the requirement to hold a license (under certain conditions). This water is available to any landholder that has a tailwater return drain. This is a state-wide exemption that is not exclusive to floodplain harvesters.

Issue	Department response
	<p>The reason behind the exemption is that water taken through a tailwater return drain has largely already been measured and accounted for under another licence.</p> <p>The tailwater exemption does not cause an increase in water take but instead provides a clear legislative framework for an interception activity that has not been historically managed. Given historical data, the department believes the risk of growth is low, but we will need to do more work on detailing how the growth will be offset.</p> <p>The department notes that a whole-of-interception program is currently being explored by the department, with more consultation to occur.</p>
<p>How do you separate rainfall runoff and a floodplain harvesting measurement period, from a measurement and compliance perspective?</p>	<p>A landholder must declare a floodplain harvesting measurement period through the department's online portal. During a floodplain harvesting measurement period, all water collected must be measured. This includes rainfall runoff.</p> <p>The proposed rainfall runoff exemption only applies outside the measurement period, when there are no other works, other than a tailwater drain, collecting overland flow. If there are works other than a tailwater drain taking water, then the exemption doesn't apply.</p>
<p>Floodplain harvesting should be banned.</p>	<p>Floodplain harvesting is a historically legitimate form of water take. In 2013, the NSW Government introduced the <i>NSW Floodplain Harvesting Policy</i> to bring this form of legitimate take into a licensing framework, address unconstrained growth and establish a compliance and enforcement regime. Implementing the policy will function to restrict current floodplain diversions so that they return to statutory limits.</p> <p>There is a misconception that not licensing floodplain harvesting will mean less water use in the northern Basin. Instead, the water historically taken by floodplain harvesting within legal limits will be taken by other licence categories, causing significant impacts on river connectivity and downstream water users.</p>