

Department of Planning and Environment

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Floodplain Harvesting Action Plan – Progress report for Quarter 2 2023

Outcomes for Quarter 2: April to June 2023

August 2023



Acknowledgement of Country

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.

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Implementing a robust floodplain harvesting framework

The NSW Government released the Floodplain Harvesting Action Plan in September 2019. The action plan is a road map to ensure water taken from floodplains across key areas in the northern Murray–Darling Basin is managed and measured within legal limits set by the Basin Plan 2012 and by state water sharing plans. In the action plan, the NSW Government committed to:

1. use the best available facts, data and scientific analysis to underpin the licensing framework and explain this work to you
2. set clear rules for floodplain harvesting and consult with you about them
3. ensure rules are followed
4. improve floodplain harvesting management over time.

Progress to date

This is the twelfth progress report on the Floodplain Harvesting Action Plan. It demonstrates that the government has delivered on key objectives outlined in the plan and is making good progress on the remaining objectives of the reform. As of June 2023, 21 actions identified in the action plan have been completed, 8 are in progress, and 3 are identified as future actions. Updated target dates for actions in progress are provided within this report.

Since 2020, the NSW Government has publicly exhibited proposed water sharing rules for floodplain harvesting licences for all five valleys – the Border Rivers, Gwydir, Macquarie, Barwon-Darling and Namoi, fulfilling commitments to:

- publish valley-based model build and model scenario reports (action 1.4 and 1.5)
- publish valley-based environmental benefit reports (action 1.6)
- hold workshops with stakeholders to explain the model build, model scenario and environmental assessment reports on a valley-by-valley basis (action 1.8)
- release proposed water sharing plan and water resource plan rule changes for floodplain harvesting (action 2.4).

Draft rules for floodplain harvesting access licences were publicly exhibited from 1 June to 8 July 2022. Rules were included in the water sharing plan for the Barwon-Darling Unregulated River Water Source on 17 February 2023. The What we heard report for the Namoi Water Sharing Plans (WSP) is expected to be published in September 2023. This means action 2.6 is now complete for all valleys.

Amendments to the water management regulations

The Water Management (General) Regulation 2018 was amended effective 3 February 2023 to establish the process for determining the category and share component of floodplain harvesting licences. This amendment combined with amendments which took place 1 July 2022, relating to floodplain harvesting measurement requirements and a state-wide exemption for developed area run-off, means that NSW has the legislative framework established to integrate floodplain harvesting activities into the licensing framework. As of this report's publication, the Namoi valley is the only outstanding northern inland valley.

The floodplain harvesting licensing determination process has been disallowed several times, most recently on 21 September 2022. Importantly, this disallowance did not affect the validity of floodplain harvesting licences that were determined while the regulation was valid.

Past disallowances led to delays in implementing the NSW Floodplain Harvesting Policy; however, the NSW Government has remained committed to regulating Floodplain Harvesting within the legal limits prescribed in the NSW water sharing plans and the Basin Plan. This commitment is crucial for meeting legislative obligations, improving environmental and connectivity outcomes, and to provide clarity for all water users and the Natural Resources Access Regulator (NRAR).

Select Committee on floodplain harvesting

On 23 June 2021, the NSW Legislative Council formed the Select Committee on Floodplain Harvesting (Select Committee) to inquire and report on the NSW Government's management of floodplain harvesting. The Select Committee was established following the disallowance of earlier amendments to the Water Management (General) Regulation 2018 for floodplain harvesting on 6 May 2021. On 15 December 2021, the NSW Legislative Council released its final report as part of the floodplain harvesting inquiry.

The NSW Government responded to the Select Committee's report, which was published on 24 May 2022. The government agreed, either fully or partially, with 20 of the 25 recommendations made by the Select Committee. Many of these recommendations were already in line with the existing floodplain harvesting policy.

For more detailed information about the NSW Legislative Council, legislative amendments, and outcomes of community consultation, please refer to the department's website at <https://www.dpie.nsw.gov.au/water/plans-and-programs/floodplain-management>.

The licensing and measurement framework for floodplain harvesting has commenced

The first-ever enforceable controls to reduce and regulate floodplain harvesting are now in-place for the Border Rivers, Gwydir, Macquarie, and Barwon-Darling valleys. This allowed for available water determinations, to credit water access licence accounts, to be made for each valley on:

- 15 August 2022 – Border Rivers and Gwydir
- 1 March 2023 – Macquarie
- 1 April 2023 – Barwon-Darling

Floodplain harvesting activities were the last major form of water take to be integrated into the licensing framework. Licensing provides a mechanism to limit and control water take within legal limits, facilitating an overall improvement in the management of NSW water resources. This also provides regulatory certainty for floodplain harvesting water users in these valleys and is integral to implementing the measurement rules.

Licensing and measurement of floodplain harvesting in these valleys will return significant volumes of water to floodplains, rivers, and creeks. These additional floodplain flows will benefit water birds, native fish, and vegetation, particularly in the internationally recognised Gwydir Wetlands.

Other water licence holders within these valleys have also benefitted. The integration of floodplain harvesting activities into the licensing framework means that any reductions in available water determinations are shared more equally across water user groups.

Ahead of the licensing framework commencing in each valley, staff from the Department of Planning and Environment, NRAR and WaterNSW held workshops with license holders to explain the rules and requirements, the approach to compliance, and answer questions. These workshops were held in:

- Moree and Goondiwindi on 2 and 3 August 2022 for Gwydir and Border Rivers respectively
- Warren on 23 February 2023 for Macquarie licence holders; and
- via webinar on 28 March 2023 for Barwon-Darling licence holders, ahead of the framework commencing in Barwon-Darling 1 April 2023.

Further sessions on measurement requirements have also been held for landholders, and guidance materials developed to further support the framework's implementation.

Licensing in the Namoi valley is still being progressed and it is anticipated that floodplain harvesting access licences will be determined in Q4 of 2023.

Floodplain Harvesting Action Plan deliverables

Use the best available facts, data and scientific analysis to underpin the licensing framework and explain this work to you

Table 1. Progress on the first set of actions

Our commitment	Target date	Progress	Updates
1.1 Report on how sensitivity and uncertainty in the model has been treated by the Department of Planning and Environment and how much it affects users	Q4 2019	Complete	Documentation will now be included in the valley-based model reports.
1.2 Report on the significance of additional rainfall runoff due to irrigation and how this is being managed	Q4 2019	Complete	The report for additional rainfall runoff is available on the website. It is proposed that runoff from irrigation areas will not be licensed as floodplain harvesting in certain circumstances.
1.3 Write to individuals to explain the parameters that we will use to work out their licence entitlements	Q4 2020	Complete	Complete for all valleys.
1.4 Publish valley-based model build report	Q4 2022	Complete	Complete for all valleys. Report for Namoi published December 2022.
1.5 Publish valley-based model scenario report	Q4 2022	Complete	Complete for all valleys. Report for Namoi published December 2022.
1.6 Publish valley-based environmental benefit reports	Q4 2022	Complete	Complete for all valleys. Report for Barwon–Darling published December 2022.
1.7 Hold a focus workshop with peak water user groups in northern NSW valleys to provide information about how the modelling approach applied to individual farms is supported by sensitivity testing	Q3-Q4 2019	Complete	Workshop and field trip held with peak water user groups in October 2019 in Moree.

1.8 Hold workshops with stakeholders to explain the model build, model scenario and environmental assessment reports on a valley-by-valley basis	Q4 2022	Complete	Complete for all valleys. Namoi valley workshops were completed in November 2022.

Set clear rules for floodplain harvesting and consult with you about them

Table 2. Progress on the second set of actions

Our commitment	Target date	Progress	Updates
2.1 Publish all independent reviews about policy implementation (the Independent Review of NSW Floodplain Harvesting Policy Implementation and a summary of the probity review into floodplain harvesting licensing	Q3 2019	Complete	Reports for the Independent Review of NSW Floodplain Harvesting Policy Implementation and a summary of the probity review into floodplain harvesting licensing are available on the department's website. The results of peer review of modelling reports for each valley are available on the department's website.
2.2 Release a response to each recommendation of the Independent Review of NSW Floodplain Harvesting Policy Implementation	Q3 2019	Complete	See the Floodplain Harvesting Action Plan .
2.3 Release a guideline about how the department is implementing the policy	Q3 2019	Complete	Guidelines are available on the department's website.
2.4 Release proposed water sharing plan and water resource plan rule changes for floodplain harvesting	Q1 2023	Complete	Complete for all valleys. Public exhibition of proposed WSP rules for the final valley (Namoi) commenced December 2022.
2.5 Hold workshops with stakeholders to explain the guideline	Q3 2019	Complete	Complete
2.6 Hold workshops with stakeholders about proposed water sharing plan and water resource plan rule changes	Q1 2023	Complete	Complete for all valleys. Workshops for Namoi stakeholders were held in Wee Waa on 13 December 2022 and in Gunnedah on 7 February 2023.

Our commitment	Target date	Progress	Updates
2.7 Release draft entitlements for comment	Q2 2023	Complete	<p>Complete for all valleys. Draft entitlements for the remaining valley (Namoi) were sent to landholders on 28 February 2023.</p> <p>Due to updates to supporting information and requests received during the draft entitlement submission process, additional information was sent to landholders 29 March 2023 and the closing date for submissions extended to 28 April 2023.</p>
2.8 Finalise licences and amend water sharing plan and submit water resource plan for reaccreditation	Q2 2023	In progress	<p>Licences for the Border Rivers and Gwydir were determined in Q1 2022 and for Macquarie and Barwon-Darling in Q1 2023.</p> <p>Water sharing plans were amended for the Gwydir, Border Rivers, and Macquarie 29 July 2022 and for Barwon-Darling 17 February 2023.</p> <p>Water Resource plans were submitted for accreditation in Q1 2023.</p> <p>There is only one outstanding valley, being the Namoi. That water sharing plan is on track to be amended and licences determined in Q4 2023.</p>

Ensure rules are followed

Table 3. Progress on the third set of actions

Our commitment	Target date	Progress	Updates
3.1 Meet Compliance Compact obligations by publishing a program for improved measurement of floodplain harvesting	Q2 2019	Complete	Improvement program available on the department's website.
3.2 Release the final Floodplain Harvesting Measurement Policy	Q4 2019	Complete	The NSW Floodplain Harvesting Measurement Policy is available on the department's website. The policy will be revised to ensure it reflects measurement requirements in the regulations.

Our commitment	Target date	Progress	Updates
<p>3.3 Require licence holders to install telemetry-ready, continuous water-level loggers on all on-farm storages used for floodplain harvesting</p>	<p>Q4 2022</p>	<p>In progress</p>	<p>The floodplain harvesting measurement rules came into effect on 1 July 2022. This was delayed due to previous disallowances.</p> <p>Under these rules, the compliance date for the installation of primary (telemetry enabled) measurement equipment is 12 months from their access licence being credited.</p> <p>These rules are now in force in the Border Rivers, Gwydir, Barwon-Darling and Macquarie valleys.</p> <p>To take water in the first 12 months, a secondary device e.g., a gauge board is the minimum requirement.</p> <p>The measurement framework cannot be implemented in the Namoi until licences and approvals have been determined and the relevant water sharing plans amended to include floodplain harvesting activities.</p> <p>The primary equipment compliance dates for each valley are:</p> <ul style="list-style-type: none"> • Border Rivers and Gwydir – 15 August 2023 • Macquarie – 1 March 2024 • Barwon-Darling – 1 April 2024

Our commitment	Target date	Progress	Updates
<p>3.4 Start enforcement of the new floodplain harvesting licensing framework through the Natural Resources Access Regulator (NRAR)</p>	<p>Q3 2022</p>	<p>In progress</p>	<p>As of this month water users in the Border Rivers and Gwydir Valleys, if intending to capture floodplain water, are required to have primary telemetry equipment. The ability for water users to capture water from a floodplain while using secondary metering equipment such as a gauge board or an approved automated storage volume measurement device no longer applies.</p> <p>NRAR does expect water users to make every effort to be compliant, however NRAR is also aware of barriers for water users to comply. NRAR will take those barriers and complications into consideration. If a water user does choose to capture water from a floodplain without a licence or primary metering equipment, they may be subject to enforcement action, regardless of those barriers.</p> <p>As we move into an El Nino period, now is the perfect time to act so that when it does rain again, water users are compliant and can lawfully capture water from the floodplain according to their licence and approval conditions. NRAR's website has information on their approach to compliance.</p>

Our commitment	Target date	Progress	Updates
<p>3.5 Develop a best-practice guideline for floodplain harvesting measuring in partnership with Queensland and Murray–Darling Basin Authority</p>	<p>Q4 2022</p>	<p>In progress</p>	<p>Preliminary work has taken place to assess similarities and differences between NSW and Queensland’s floodplain harvesting measurement policies.</p> <p>The Murray–Darling Basin Authority is preparing documentation on the differences and similarities between NSW and Queensland’s floodplain harvesting measurement approaches.</p> <p>The department will review and provide a response to the Murray–Darling Basin Authority on its assessment of the differences and similarities between approaches to floodplain harvesting measurement in NSW and Queensland.</p> <p>The Murray-Darling Basin Authority has created a first draft of a guideline which is being reviewed by Queensland and NSW.</p>
<p>3.6 Implement best practice guidelines</p>	<p>Q4 2022</p>	<p>In progress</p>	<p>Measurement requirements for floodplain harvesting in NSW are now law.</p> <p>The Water Management (General) Regulation 2018 specifies the required standard for metering equipment and how it must be installed and validated.</p> <p>The department has developed and published guidelines to assist water users and duly qualified persons to understand their obligations under these rules.</p>

Our commitment	Target date	Progress	Updates
<p>3.7 Support the development of technologies that enable better auditing and compliance of floodplain harvesting, including through the department's Water Technology Pilot Program</p>	<p>Q3 2019</p>	<p>Complete</p>	<p>The development of technologies is being supported through the Market engagement policy for metering and telemetry.</p> <p>Development is underway for a Floodplain Harvesting Analytics Tool, funded through the Hydrometric Networks and Remote Sensing program.</p> <p>NRAR has recently concluded procurement for an external agency to build, develop and deliver a satellite remote sensing tool which will focus on floodplain harvesting. This will assist NRAR in detecting any unlawful floodplain harvesting activities.</p>
<p>3.8 Encourage the NRAR to address unapproved flood works on a risk basis to improve outcomes for the environment and downstream water users</p>	<p>Q1 2022</p>	<p>Complete</p>	<p>A whole-of-NSW Government approach to accelerating compliance for high priority unapproved floodplain structures in the Northern Basin is underway under the Improving Floodplain Connections program.</p> <p>This program is jointly funded by the Australian and NSW governments, and more information on the Improving Floodplain Connections Program is available on the department's website.</p>

Improve floodplain harvesting management over time

Table 4. Progress on the fourth set of actions

Our commitment	Target date	Progress	Updates
<p>4.1 Collect floodplain harvesting diversion data by implementing the Floodplain Harvesting Measurement Strategy</p>	<p>Q4 2022</p>	<p>In Progress</p>	<p>Measurement requirements for floodplain harvesting are now in place for Border Rivers, Gwydir, Macquarie and Barwon-Darling valleys. The primary equipment compliance dates for each valley are:</p> <ul style="list-style-type: none"> • Border Rivers and Gwydir – 15 August 2023 • Macquarie – 1 March 2024 • Barwon-Darling – 1 April 2024 <p>Diversion data is now being collected via a combination of primary and secondary device measurement equipment where installed.</p> <p>Collection of data in the Namoi will commence once the licensing framework is implemented in this valley.</p>
<p>4.2 Consider opportunities to expand the river gauging network to improve the quantification of return flows from the floodplain to the river</p>	<p>Q3 2021</p>	<p>Complete</p>	<p>The NSW Government has recently completed a review of the state’s hydrometric network and published a hydrometric plan, which includes a map of top ranked sites in the northern Basin for installation or upgrade. We are currently funding 20 new and modified surface water metering sites across the northern Basin to be installed by September 2023.</p>
<p>4.3 Continue to invest in remote sensing to improve our understanding of flood flow breakouts and return flows from the floodplain to the river</p>	<p>Q4 2023</p>	<p>In progress</p>	<p>We are engaged with multiple initiatives which seek to expand the use of remote sensing to monitor water presence, volume, and movement across floodplains.</p>

Our commitment	Target date	Progress	Updates
4.4 Undertake modelling to assess the effects of climate change on floodplain harvesting, as well as on the downstream water users and the environment	Q3 2021	Complete	Completed as part of the development of the draft regional water strategies.
4.5 Invest in robust monitoring and evaluation programs to better understand the hydrological and ecological effects of floodplain harvesting	Q2 2023	In progress	<p>A monitoring, evaluation and reporting (MER) framework is being developed to better understand the hydrological and ecological effects of floodplain harvesting.</p> <p>Measurement data from licensing and measurement of floodplain harvesting will provide important new data for monitoring and evaluating the hydrological and ecological effects of floodplain harvesting.</p>
4.6 Recalibrate models using floodplain harvesting measurement data	From Q3 2021	Future action	<p>This is a future action. 3-5 years of measurement data is required for this recalibration. Accordingly, the earliest start date for any valley will be 2026.</p>
4.7 Improve model capability by explicitly representing flows from the floodplain to the river using all new data and information collected	From 2025	Future action	<p>This action is about a year behind the intended schedule. The department received a draft report for the first of 3 stages and is committed to completing this important work.</p>
4.8 Review water sharing rules and amend them as necessary to improve the management of floodplain harvesting over time, based on improved data and information	From 2025	Future action	N/A