

# Implementation of the recommendations from the 2020 first flush review

## Progress update #3 – March 2023

### Summary of progress on recommendations

Table 1 provides a summary of the department’s progress in implementing the recommendations.

Table 1. Summary of progress to implement recommendations

Recommendation	Status	Comment
<b>1 Develop first flush arrangements</b>	In progress	Finalising connectivity actions and considering them in the review of the Barwon–Darling Water Sharing Plan remake in 2024 is one of the focuses of the first stage of implementation of the Strategy.
<b>2 Incorporate learnings into the system and manage future events</b>	Complete	--
<b>3 Evidence-based methodology</b>	In progress	<p>Previous issues with Crown Land access and above normal flow conditions have resulted in some delays, however these issues have now been resolved. Implementation of the Hydrometric Improvement Plan will now be progressed.</p> <p>The NSW Government has finalised triggers for first flows to provide for critical human and environmental needs. These triggers are included in the <a href="#">Western Regional Water Strategy</a>.</p>
<b>4 Incident Management Plan</b>	In progress	Document is in draft.
<b>5 Interim measures (provisions in the regulatory and policy framework)</b>	Complete	--
<b>6 Proactive use of temporary water restrictions</b>	Complete	--
<b>7 Regulatory and Policy framework for managing drought</b>	In progress	Valley based incident response guides have been updated. The Extreme Events Policy was updated in 2022 and is being prepared for publication.
<b>8 Improve flow forecasting modelling and real-time monitoring capability</b>	In progress	Modelling updates are complete. Improvements to real-time monitoring capability are ongoing.

Recommendation	Status	Comment
<b>9 Implementation planning and progress reporting</b>	In progress	Various implementation plans have been developed by the department's Water group and are available on the department's website. The Water group is also committed to biannual reporting against these recommendations.
<b>10 Communication coordination and capability</b>	Ongoing	Water group built on foundations laid in 2021 to improve engagement and communication. The department is making continuous improvements with the public in mind.

## Introduction

In March 2020, the NSW Government appointed an independent panel to assess the management of the 2020 Northern Basin First Flush event. The panel's [final report](#) was submitted on 7 September 2020.

The NSW Government [responded](#) to the final report, agreeing or agreeing in principle with all but one of the ten recommendations, although noting it required more time to implement than suggested by the panel to ensure consultation.

Many of the panel's recommendations closely align with or are already being implemented through existing projects being undertaken by the NSW Government.

Most importantly, the NSW Government launched its first [NSW Water Strategy](#) in September 2021. This strategy sets a 20-year strategic and integrated approach to improve the security, reliability, quality and resilience of our water resources over the long term.

## Progress to date

### Recommendation 1

Develop first flush arrangements, in consultation with water users, Traditional Owners and communities, that clearly articulate how connectivity within and between water sources in the Northern Basin, and critical human and environmental water needs, will be provided for during first flush events.

Status: **In progress**

The NSW Government has published the [Western Regional Water Strategy](#) which has a strong focus on connectivity. The strategy was published on 16 December 2022.

The strategy has been informed by:

- A connectivity stakeholder reference group. Three meetings have been held in late 2021 as well as additional meetings with First Nations representatives. This group includes representatives from Aboriginal nations, water user groups, conservation groups, local government, community representatives, the Murray–Darling Basin Authority, and the Commonwealth Environmental Water Office. The papers from the meetings are available [here](#).

- Engagement with Aboriginal communities and local councils across western NSW.
- Information from previous reports and investigations.

The Western Regional Water Strategy has a 20–40 year timeframe, and the prioritisation of action implementation recognises this. Finalising connectivity actions and considering them in the review of the Barwon–Darling Water Sharing Plan remake in 2024 is one of the focuses of the first stage of implementation of the Strategy. This will include:

- publishing critical dry conditions triggers and seeking to implement them in water sharing plans (Action 3.1)
- finalising the review of the North-West Flow Plan (Action 3.2)
- progressing work with other basin jurisdictions and the Murray–Darling Basin Authority around changing the operational arrangements of releasing water from Lake Cawndilla down the Great Darling Anabranch (Action 3.4).

## Recommendation 2

Incorporate learnings from the 2020 Northern Basin First Flush event into systems that will be used to manage any future first flush event that arises in the short term.

Status: **Complete**

Key actions to address recommendation 2 are addressed in Table 2.

Table 2. Key actions to address recommendation 2

Action	Status:
1. updating flow forecasting models	<b>Complete</b>
2. ensuring the Department of Planning, Industry and Environment – Environment, Energy and Science is involved in future management	<b>Complete</b>
3. undertaking and publishing a comparison of what outcomes would have been achieved if temporary water restrictions were not put in place	<b>Complete</b>
4. updating models to reflect the capacity of water sources to contribute to meeting downstream targets	<b>Complete</b>
5. revising the objectives, principles and targets used to manage the event having regard to this information (and any further work completed pursuant to recommendation 3 below)	<b>Complete</b>

Action	Status:
6. seeking feedback on the revised objectives, targets and principles	<p><b>Complete</b></p> <p>Objectives, principles, and targets were finalised after public exhibition of the draft Regional Water Strategy. The Strategy underwent public exhibition from 1 June to 13 July 2022.</p> <p>The exhibition period included face-to-face consultation sessions in Moree, Goondiwindi, Menindee, Wilcannia (with First Nation people), Walgett and Bourke. An online consultation session was also conducted.</p> <p>The final Strategy is available <a href="#">online</a>.</p>

### Recommendation 3

Ensure the evidence base and method for first flush management is quantified, science-based and made publicly available, including estimated requirements to meet critical water needs (including basic landholder rights and cultural flow requirements that fall within critical water needs).

Status: **In progress**

The NSW Government plans to install 20 new or upgraded hydrometric stations in the northern Murray–Darling Basin as part of the Australian Government funded Hydrometric Networks and Remote Sensing Program. Five of these stations will be installed as soon as practical subject to suitable river conditions. Previous issues with Crown Land access and above normal flow conditions have resulted in some delays, however these issues have now been resolved. The new stations will provide important information to improve modelling and flow forecasting.

WaterNSW has developed flow forecasting models for the northern tributaries. These have been operational for many years and were built before active management was envisaged. The models have been adapted to include the latest flow data and, specifically, data from the first flush event. The operational models forecast flows along the river taking into account customer demands (water orders), system losses along river sections and travel times. The [WaterInsights](#) platform ensures timely, transparent and accessible information on water resources. The development of WaterInsights continues to be driven by customer feedback.

Specific to the Barwon–Darling operations, WaterNSW are currently experiencing difficulty developing accurate flow forecasts. These flow forecasts are a critical element of the active management framework for determining the volume of water available for licence holder extraction. To guarantee protection of the environmental water, operators conservatively assume that extraction volume is either the total of the expression of interest or the individual daily extraction components volume. In reality neither of these volumes are fully removed from the river and the flows are consistently underestimated. The ability to accurately forecast system flows will be significantly improved as real time usage from telemetered meters becomes available.

The NSW Government has finalised triggers for first flows to provide for critical human and environmental needs. The triggers are included in the Western Regional Water Strategy. The Strategy was finalised on 16 December 2022. Finalising connectivity actions and considering them in the review of the Barwon–Darling Water Sharing Plan remake in 2024 is one of the focuses of the first stage of implementation of the Strategy.

In terms of meeting cultural flow requirements, Priority 2 of the NSW State Water Strategy is 'recognise Aboriginal rights and values and increase access to and ownership of water for economic and cultural purposes'. Under this priority, the NSW Government will seek to engage with the Aboriginal community to co-design a pilot to test methodology for cultural flows and has asked for registrations of interest from local Aboriginal communities to establish cultural water plans throughout the state. In addition to this, the connectivity stakeholder reference group includes a number of Aboriginal/First Nations stakeholders who are providing input into the draft triggers for implementing temporary water restrictions.

In preparing the NSW water resource plans for valleys in the Murray–Darling Basin, the department undertook a culturally appropriate, Nation-by-Nation approach to hearing from First Nations/Aboriginal people on water-dependent cultural values and uses in the Murray–Darling Basin, this included over 52 workshops and 250 Traditional Owner interviews across the Basin. The Government will continue to work with First Nations people to better understand cultural values and flow requirements to inform water planning and sharing decisions, including during first flush events.

## Recommendation 4

Review and update incident management systems for managing first flush events.

Status: **In progress**

The NSW Government is developing a First Flush Incident Management Plan, in collaboration with partner agencies, which will set out processes for first flush management, including communication. This document is currently in draft.

## Recommendation 5

Until there are further provisions for first flush event management embedded in the regulatory and policy framework, publish guidance materials which outline how the NSW Government will use temporary water restrictions to manage first flush events.

Status: **Complete**

The department has consulted publicly on the draft triggers for putting in place temporary water restrictions under section 324 of the *Water Management Act 2000* and is revising the relaxation triggers. This was undertaken through the Western Regional Water Strategy public consultation process.

The final [Western Regional Water Strategy](#) was published on 16 December 2022, including an implementation plan. They are available on the department's website. Critical dry condition triggers are outlined in the strategy.

## Recommendation 6

Make any temporary water restrictions required to manage first flush events on a proactive basis (that is, before rain is forecast).

Status: **Complete**

The final [Western Regional Water Strategy](#) was published on 16 December 2022, including an implementation plan. They are available on the department's website. Critical dry condition triggers are outlined in the strategy.

The triggers will be used to inform when a temporary restriction should be made and lifted, so that first flush events that occur after a prolonged dry period can be proactively managed. Section 324 orders will be used as the agreed targets are reached and are intended to be in place prior to a flow event occurring.

## Recommendation 7

Embed the management of first flush events in the regulatory and policy framework for managing drought.

Status: **In progress**

The NSW Government has updated the valley-based incident response guides, and these are part of the water resource plans being submitted to the MDBA. The Incident Response Guides include first flush protections as a drought contingency measure. The Extreme Events Policy has been updated with lessons learnt from the 2017-2020 drought, and the updated policy is due to be published in the first half of 2023.

The NSW Government has recently consulted on triggers for temporary water restrictions and whether these should be inserted into water sharing plan rules through the Western Regional Water Strategy public consultation process. The final [Western Regional Water Strategy](#) was published on 16 December 2022. Critical dry condition triggers are outlined in the Strategy. The Western Regional Water Strategy has a 20–40 year timeframe, and the prioritisation of action implementation recognises this. Finalising connectivity actions and considering them in the review of the Barwon–Darling Water Sharing Plan remake in 2024 is one of the focuses of the first stage of implementation of the Strategy.

The final detail of the Incident Response Guides, Extreme Events Policy, and Western Regional Water Strategy will be incorporated in the First Flush Incident Management Plan being developed under recommendation 4.

## Recommendation 8

Improve flow forecasting modelling and real-time monitoring capability, including measurement of extractions and the hydrometric system for inflows and monitoring end of system flows.

Status: **In progress**

Progress on this recommendation is outlined in response to recommendations 2 and 3 above. In addition, WaterNSW has held initial discussions with Queensland regarding cross-border flows and

receives notices on Queensland's water access arrangements as they occur. Work is continuing on forecasting cross-border flows.

## Recommendation 9

Current (and future) reform programs should be accompanied by clear implementation plans and the government should publish regular reports of progress against these implementation plans on a collective basis.

Status: **In progress**

This update on implementing the recommendations from the first flush review contributes to addressing this recommendation. This is the third update, with a [prior update](#) published in October 2022. Future project updates will be published biannually. Future implementation steps are listed at the end of this update.

At a broader level, the [NSW Water Strategy](#) (Released in September 2021) is accompanied by an implementation plan. The 12 regional water strategies and two metropolitan water strategies will also include implementation plans. The implementation plans will provide clear time frames and defined roles and responsibilities for delivering actions.

An integrated framework for reviewing and reporting against these strategies will allow the NSW Government to track the effectiveness of implementation against achieving the actions of the NSW Water Strategy. The reporting will be undertaken annually and be publicly available.

## Recommendation 10

Improve and resource communication coordination and capability.

Status: **Ongoing**

Communications and engagement on water policy, planning, programs and services is important, and the NSW Government is committed to improvements in this area.

The NSW State Water Strategy is the first 20-year water strategy for all of NSW and aims to improve the security, reliability, quality and resilience of our water resources over the long term. Priority 1 aims to build community confidence and capacity through engagement, transparency and accountability. Among other actions, Priority 1 commits to:

- improving engagement, collaboration and understanding
- increasing the amount and quality of publicly available information about water in NSW.

The Water group built on foundations laid in 2021 to improve engagement and communication in the following ways:

- the Water group continues to host a monthly [Water Engagement Roundup](#), initiated in 2021, these webinars provide information on upcoming engagement activities and each month spotlights a different program or water matters of interest
- continued publication of a regular newsletter and other regular public updates through digital channels and face to face where possible. [Sign up](#) to receive our monthly newsletter and read the [previous editions here](#)



- all stakeholder engagement activities are published online
- better collaboration with other water sector agencies
- the Water Stakeholder and Community Engagement Policy has been reviewed and updated to support the department to meet the principles of purposeful, inclusive, timely, transparent and respectful engagement.

Ensuring relevant stakeholder groups cover a broad spectrum of stakeholder interests was recommended by the panel. Since the last progress update the following reference groups have been active:

- connectivity stakeholder reference group (consisting of representatives from Aboriginal Nations, water user groups, conservation groups, local government, the Murray–Darling Basin Authority and the Commonwealth Environmental Water Office)
- Town Water Risk Reduction Program Stakeholder Advisory Panel
- a new First Nations engagement team supporting the development of the Aboriginal Water Program has been created.

Related to communications of water resource information, relevant agencies are making continuous improvements with the public in mind. The following resources may be of interest:

- the WaterNSW WaterInsights portal
- water videos, including on allocations, groundwater, and surface water which can be found by searching for *DPE Water on YouTube*
- details of past engagement, including a library of previous webinars and presentations covering a range of topics across the water sector from 2020 onwards
- numerous updates to the department's Water website.

## What's next

The NSW Government is committed to implementing these recommendations. Transparent processes that enable everyone to have their say will be critical to enabling these actions to be successful.

The NSW State Water Strategy and NSW State Water Strategy Implementation Plan have been published on the department's website.

Table 3. Expected timeframe for delivery of remaining actions

Action	Date
Publish the updated Extreme Events Policy that includes information about how future first flush events will be managed (R7)	Mid 2023
Publish fourth progress update on the implementation of recommendations from the 2020 first flush review (R9) six months from publishing this update	Late 2023 – early 2024
Installation of five new hydrometric stations (R3)	Mid 2023



Action	Date
Complete consultation about provisions that could be inserted into legislation and water sharing plans to support the process of first flush management (R7)	End 2024
Finalise the first flush incident management plan (R4)	Mid 2023