

# Implementation of the recommendations from the 2020 first flush review

## Progress update #2

### Summary of progress on recommendation

Recommendation	Status	Comment
<b>1 Develop first flush arrangements</b>	In progress	The draft Western Regional Water Strategy has been published and sought public comments. Arrangements will now be finalised.
<b>2 Incorporate learnings into the system and manage future events</b>	In progress	Flow forecasting models have been updated and learnings from the 2020 event have been published. Draft objectives, principles and targets are publicly available.
<b>3 Evidence based methodology</b>	In progress	Hydrometric improvements and First Nations engagement are ongoing. Draft objectives, principles and targets are publicly available.
<b>4 Incident Management Plan</b>	In progress	Document is in draft.
<b>5 Interim measures (provisions in the regulatory and policy framework)</b>	In progress	Public consultation has been undertaken on the parameters for the use of section 324 orders. Feedback will now be considered.
<b>6 Proactive use of temporary water restrictions</b>	Complete	A framework for the use of section 324 orders in being devised that will allow for first-flush events to be proactively managed.
<b>7 Regulatory and Policy framework for managing drought</b>	In progress	Valley based incident response guides have been updated. The Extreme Events Policy is in the process of being updated. Further provisions may be added to the relevant water sharing plans upon finalisation of the Western Regional Water Strategy.
<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.
<b>9 Implementation planning and progress reporting</b>	In progress	Various implementation plans have been developed to cover the work being conducted by DPE Water. DPE Water is committed to biannual reporting against these recommendations.
<b>10 Communication coordination and capability</b>	In progress	DPE Water 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 [draft Western Regional Water Strategy](#) which has a strong focus on connectivity. The strategy was on public exhibition from 1 June to 13 July 2022 and sought public comments on:

- Triggers for temporary water restrictions.
- Options around changing timing of water take.
- A long list of options to allow water flow more easily throughout rivers, support water quality and fish movement, as well as the water needs of towns, Aboriginal communities, and industries.

The draft strategy has been informed by:

- A connectivity stakeholder reference group. Three meetings have been held to date (via videoconference due to COVID) 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.

Any further consultation needs will be informed by the feedback received through the public consultation process.

## 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: **In progress**

Key actions to address recommendation 2 are addressed in the following table.

Action	Status:
1. updating flow forecasting models (by end 2021)	<p><b>Complete</b></p> <p>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.</p>
2. ensuring the Department of Planning, Industry and Environment – Environment, Energy and Science is involved in future management	<p><b>Complete</b></p> <p>The Department of Planning and Environment – Environment and Heritage Group (DPE - E &amp; H) is a member of the inter-agency working group that was formed in July 2021 and is providing input into the assessment of critical environmental needs.</p>
3. undertaking and publishing a comparison of what outcomes would have been achieved if temporary water restrictions were not put in place (by end 2020)	<p><b>Complete</b></p> <p>The department has completed this work and the outcomes are available on the <a href="#">website</a>.</p>
4. updating models to reflect the capacity of water sources to contribute to meeting downstream targets	<p><b>Complete</b></p> <p>WaterNSW northern valley operational models can forecast flows through the tributaries and connect to the Barwon Darling operational model to forecast flows from the top of the system to Menindee Lakes.</p>

Action	Status:
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) (by mid-2022)	<p><b>Complete</b></p> <p>Objectives, principles, and targets have been revised and this work was included with the Western Regional Water Strategy for public exhibition. Feedback from this consultation period will now be considered prior to the draft being finalised alongside the Western Regional Water Strategy.</p>
6. seeking feedback on the revised objectives, targets and principles.	<p><b>In progress</b></p> <p>Objectives, principles, and targets have been revised and a draft of this work was included with the Western Regional Water Strategy for public exhibition. The Strategy underwent 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>Any further consultation needs will be informed by the feedback received through the public consultation process.</p>

### Recommendation 3

Ensure the evidence base and methodology 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. However, Crown Land access and above normal flow conditions have resulted in some delays. 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, WaterNSW's operational forecasting is assisted by the active management 'expression of interest' process, which is an estimate only. WaterNSW's ability to estimate usage is hindered by the water sharing plan rules, which distribute water to all licences up to their daily limit when large flows are present, regardless of the existence of an EOI. This will be improved with the availability of telemetered usage information, but extractions are currently estimated.

The NSW Government is developing triggers for first flows to provide for critical human and environmental needs. The draft triggers have been revised and a draft of this work was included with the Western Regional Water Strategy for public exhibition. The Strategy underwent exhibition from 1 June to 13 July 2022.

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. 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 of Planning and Environment 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: **In progress**

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 has been undertaken through the Western Regional Water Strategy public consultation process. Feedback will now be considered prior to finalising the triggers.

## 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**

Triggers and targets for both implementing and lifting first flush temporary water restrictions are currently being developed. Once finalised they will be publicly available. 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 Extreme Events Policy is also being updated with lessons learnt from the 2017-2020 drought. The Incident Response Guides include first flush protections as a drought contingency measure. 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. However, the targets and triggers are still being finalised. The final detail will be included in the First Flush Incident Management Plan.

## 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 a & d 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 second update, with a [prior update](#) published in October 2021. 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: **In progress**

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.

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

- DPE Water continues to host monthly [Water Engagement Roundups](#), initiated in 2021, these webinars provide information on upcoming engagement activities and each month spotlights a different program or water matters of interest.
- A Water Roundtable conversation was held in December 2021, bringing together peak stakeholder groups to initiate a forum for two-way dialogue.
- 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](#)
- Launch of a [Water Meetings Library](#), which include minutes of all public meetings
- Better collaboration with other water sector agencies
- KPMG submitted its [Audit report](#) of DPE Water's Engagement Policy in April 2022. The review considered the implementation and effectiveness of the policy against the engagement standards to identify areas of best practice and improvement opportunities.

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

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 [water insights portal](#)
- WaterNSW ROSSCo, which provide stakeholders including irrigators, environmental water holders, councils and community members [river operational updates](#).
- Water videos, including on allocations, groundwater, and surface water which can be found by searching for DPE Water on [YouTube](#)
- A [Water presentations library](#) which consists of webinars and presentations that cover a range of topics across the water sector from 2020 until today
- Numerous updates to the [NSW Government DPE Water website](#)

---

## What's next

The NSW Government is committed to implementing these recommendations, with the next key step being to discuss potential triggers and targets for protecting flows for critical human and environmental needs during and after prolonged drought with the public, along with a full suite of options on connectivity through the draft Western Regional Water Strategy. 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 of Planning and Environment [website](#).

Action	Date
Update the Extreme Events Policy to include information about how future first flush events will be managed (R7)	End 2022
Publish third progress update on the implementation of recommendations from the 2020 first flush review (R9)	End 2022
Finalise the objectives, targets and principles for future first flush events (R2)	End 2022
Installation of five new hydrometric stations (R3)	ASAP (Subject to access and conditions.)
Complete consultation about provisions that could be inserted into legislation and water sharing plans to support the process of first flush management (R7)	End 2022
Develop and publish first flush incident management plan (R4)	Mid 2023