

Implementation of the recommendations from the 2020 first flush review

This is progress update number 1 on implementing recommendations from the Independent Panel's Assessment of the Management of the 2020 Northern Basin First Flush Event.

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 recommendations, although requiring 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. Read its priorities and implementation plan to delivering outcomes at: dpie.nsw.gov.au/water/plans-and-programs/nsw-water-strategy

Progress to date

Recommendation 1

By the end of 2020, 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 during first flush events.

In progress

The NSW Government response indicated in-principle support, contingent on sufficient time to consult with communities.

A connectivity stakeholder reference group has been formed to provide advice on connectivity in relation to low and no flow events and during the first flush. Two meetings have been held so far - (via videoconference due to COVID) on 25 August 2021 and 7 October 2021. 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 first meeting focussed on historical data on low flow events, as well as the impacts of development, water sharing plan rule changes and climate change on the frequency and duration of these flows. The presentation and communique from the meeting are available on the Department of Planning, Industry and Environment's website: www.industry.nsw.gov.au/water/what-we-do/stakeholder-engagement/connectivity

Recommendations from the 2020 first flush review



Implementation progress update: No. 1

Defining critical environmental and critical human needs in relation to first flows during and after prolonged drought was a focus of the October meeting of the reference group. Draft triggers for implementing temporary water restrictions based on these critical needs were presented at the meeting. These draft triggers will also be presented at the northern valley River Operations Stakeholder Consultation Committees (ROSCCos) in 2022.

Internal and inter-agency working groups have also been established to progress first flush arrangements. Measures to improve connectivity across flow ranges are being addressed through initiatives such as the development of the Western Regional Water Strategy and the Healthy Floodplains project.

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 by:

Recommendation	Action to date
<i>a. Updating flow forecasting models (by end 2021)</i>	Complete WaterNSW has developed flow forecasting models for the northern tributaries. These are now in operation. The models include the latest flow data, and 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.
<i>b. Ensuring the Department of Planning, Industry and Environment – Environment, Energy and Science is involved in future management</i>	Complete The Department of Planning, Industry and Environment - Environment, Energy and Science Group (EES) 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.

Recommendations from the 2020 first flush review



Implementation progress update: No. 1

Recommendation	Action to date
<p>c. <i>Undertaking and publishing a comparison of what outcomes would have been achieved if temporary water restrictions were not put in place (by end 2020)</i></p>	<p>Substantially complete</p> <p>The department has completed an assessment of take during the 2020 first flush event. This, along with further analysis by WaterNSW, indicates that if we had not protected initial flows in the 2020 First Flush event, the volumes of water that potentially could have been taken were:</p> <ul style="list-style-type: none"> • Up to an additional 100 gigalitres (GL) via supplementary licences in the regulated rivers • Up to an additional 71 GL in the Barwon-Darling.
<p>d. <i>Updating models to reflect the capacity of water sources to contribute to meeting downstream targets</i></p>	<p>Complete</p> <p>WaterNSW northern valley operational models are able to 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>
<p>e. <i>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)</i></p>	<p>In progress</p> <p>Work has commenced on revising the objectives, principles and targets used to manage a first flush event at an inter-agency level.</p> <p>The NSW Government response indicates the timing for this work is contingent on associated initiatives under Recommendation 1.</p>
<p>f. <i>Seeking feedback on the revised objectives, targets and principles.</i></p>	<p>In progress</p> <p>Initial proposed targets have been presented to the connectivity stakeholder reference group and will also be included in the draft Western Regional Water Strategy when it is released for public consultation.</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).

In progress

The NSW Government plans to install 20 new hydrometric stations in the northern Murray-Darling Basin as part of the Australian Government funded Hydrometric Networks and Remote Sensing Program. Ten of these stations will be installed as soon as practical and at least five by 30 June 2022. The new stations will provide important information to improve modelling and flow forecasting.

WaterNSW is currently developing a document outlining how flows are forecast in the Barwon-Darling. WaterNSW is also able to forecast extractions in real time with the active management 'expression of interest' process. This will be improved with meter telemetry, but extractions can currently be estimated.

The NSW Government is developing initial proposals for triggers for first flows to provide for critical human and environmental needs.

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-develop a pilot to test methodology for cultural flows. In addition to this, the connectivity stakeholder reference group includes a number of Aboriginal/Murri 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, Industry 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

By 2021 review and update incident management systems for managing first flush events, including to develop a communications plan to support first flush management. As far as practicable, management actions should be communicated prior to being undertaken and the progress of flows and achievement of targets should be communicated as the event unfolds.

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.

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.

In progress

The department is currently consulting 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. These will be published at the end of 2021.

Recommendation 6

By end 2020, make any temporary water restrictions required to manage first flush events on a proactive basis (that is, before rain is forecast) to enhance the ability of water users and communities to plan their activities and minimise any potential adverse effects of restrictions.

Under consideration

The intent is to make the triggers and targets for both implementing and lifting first flush temporary water restrictions 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.

Recommendation 7

Embed the management of first flush events in the regulatory and policy framework for managing drought. This is required to improve certainty that critical water needs will be protected in extreme events, improve predictability for Traditional Owners, communities and water users, and ensure that the lessons learnt from the 2020 Northern Basin First Flush event are not lost with the passage of time and/or changes of agency staff. Actions proposed are:

- *By mid-2022, update incident response guides and extreme events policies to include information about how future first flush events will be managed.*
- *By end of 2022, complete consultation about provisions that could be inserted into legislation and water sharing plans to support the process of first flush management.*

In progress

The NSW Government has begun updating the valley-based incident response guides and the Extreme Events Policy with lessons learnt from the 2017-2020 drought. This will include information on protecting first flush events, however; the detail will be contained in the First Flush Incident Management Plan.

The NSW Government will commence stakeholder consultation on the remake of the Barwon-Darling water sharing plan in the first half of 2022.

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.

In progress

Progress on this recommendation is outlined in response to Recommendations 2a, 2b and 3 above. In addition, WaterNSW has held initial discussions with Queensland and is now receiving notices on Queensland's water access arrangements as they occur. Further work is needed 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. Progress reports to be published every six months.

In progress - delayed

We are considering how to best deliver this recommendation in a clear, consolidated and streamlined manner that is easy for stakeholders to navigate and access. However, we have made some progress. This update on implementing the recommendations from the first flush review contributes to addressing this recommendation and a follow-up report will be published in early 2022. 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, including by establishing a water reform engagement group which includes the full spectrum of interests and impacted parties, including irrigator, Indigenous, environmental, local government, floodplain graziers and riparian water users from both the Northern and Southern basin.

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.

Throughout 2021, the department has focused its efforts on improving engagement and communication in the following ways:

- Initiation of the [Water Engagement Roundup](#), a monthly webinar to ensure everyone has access to the same information, anytime, anywhere.
- 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 or read the [previous editions](#).
- All stakeholder engagement activities are [published online](#).
- Better collaboration with other water sector agencies.
- Seeking advice on best practice engagement to inform the development of a consistent approach to how we reach the full spectrum of stakeholders by their interests and communities they represent.

Recommendations from the 2020 first flush review



Implementation progress update: No. 1

- Ensuring relevant stakeholder groups cover a broad spectrum of stakeholder interests as recommended by the panel. In 2021, we have established a number of reference groups including (among others) the:
 - 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 [Stakeholder Advisory Panel](#).
- Using the WaterNSW [River Operations Stakeholder Consultation Committees](#) (ROSSCo) meetings as a platform for consultation.

Related to communications of water resource information, significant improvements continue to be realised with the development of:

- 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 DPIE 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 department's website: dpie.nsw.gov.au/water/home

What's next

The NSW Government is committed to implementing these recommendations. 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, Industry and Environment at: water.dpie.nsw.gov.au/plans-and-programs/nsw-water-strategy

Action	Date
Present draft criteria for triggering temporary water restrictions to meet critical needs to the Connectivity Stakeholder Reference Group meeting (R2)	October 2021
Publish the draft Western Regional Water Strategy and publicly consult on a full suite of connectivity options	End 2021 / early 2022 (subject to COVID restrictions)
Review the objectives, targets and principles used during the 2020 first flush event (R2)	December 2021

Recommendations from the 2020 first flush review



Implementation progress update: No. 1

Develop and publish first flush incident management plan (R4)	March 2022
Update incident response guides and the Extreme Events Policy to include information about how future first flush events will be managed (R7)	March 2022
Publish second progress update on the implementation of recommendations from the 2020 first flush review (R9)	March 2022
Finalise the objectives, targets and principles for future first flush events (R2)	June 2022
Installation of five new hydrometric stations (R3)	June 2022
Complete consultation about provisions that could be inserted into legislation and water sharing plans to support the process of first flush management (R7)	December 2022

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