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SUBMISSION

Independent assessment of the management of the Northern Basin First Flush event – Draft Report

August 2020



NSW Irrigators' Council

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigation farmers and the irrigation farming industry in NSW. Our members include valley water user associations, food and fibre groups, irrigation corporations and commodity groups from the rice, cotton and horticultural industries.

Through our members, NSWIC represents over 12,000 water access licence holders in NSW who access regulated, unregulated and groundwater systems. NSWIC engages in advocacy and policy development on behalf of the irrigation farming sector. As an apolitical entity, the Council provides advice to all stakeholders and decision makers.

Irrigation farmers are stewards of tremendous local, operational and practical knowledge in water management. With more than 12,000 irrigation farmers in NSW, a wealth of knowledge is available. Participatory decision making and extensive consultation ensure this knowledge can be incorporated into best-practice, evidence-based policy.

NSWIC and our members are a valuable way for Governments and agencies to access this knowledge. NSWIC offers the expertise from our network of irrigation farmers and organisations to ensure water management is practical, community-minded, sustainable and follows participatory process.

NSWIC welcomes this opportunity to provide a submission on the Draft Report for the *Independent assessment of the management of the Northern Basin First Flush event*.

NSWIC sees this as a valuable opportunity to provide expertise from our membership to inform the Inquiry. Each member reserves the right to independent policy on issues that directly relate to their areas of operation, expertise or any other issues that they deem relevant.

NSW Irrigation Farming

Irrigation farmers in Australia are recognised as world leaders in water efficiency. For example, according to the Australian Government Department of Agriculture, Water and the Environment:

“Australian cotton growers are now recognised as the most water-use efficient in the world and three times more efficient than the global average”¹

“The Australian rice industry leads the world in water use efficiency. From paddock to plate, Australian grown rice uses 50% less water than the global average.”²

Our water management legislation prioritises all other users before agriculture (critical human needs, stock and domestic, and the environment), meaning our industry only has water access when all other needs are satisfied. Our industry supports and respects this order of prioritisation. Many common crops we produce are annual/seasonal crops that can be grown in wet years, and not grown in dry periods, in tune with Australia's variable climate.

Irrigation farming in Australia is also subject to strict regulations to ensure sustainable and responsible water use. This includes all extractions being capped at a sustainable level, a hierarchy of water access priorities, and strict measurement requirements.

¹ <https://www.agriculture.gov.au/ag-farm-food/crops/cotton>

² <https://www.agriculture.gov.au/ag-farm-food/crops/rice>



NSW Irrigators' Council's Guiding Principles

Integrity	Leadership	Evidence	Collaboration
Environmental health and sustainable resource access is integral to a successful irrigation industry.	Irrigation farmers in NSW and Australia are world leaders in water-efficient production with high ethical and environmental standards.	Evidence-based policy is essential. Research must be on-going, and include review mechanisms, to ensure the best-available data can inform best-practice policy through adaptive processes.	Irrigation farmers are stewards of tremendous knowledge in water management, and extensive consultation is needed to utilise this knowledge.
Water property rights (including accessibility, reliability and their fundamental characteristics) must be protected regardless of ownership.	Developing leadership will strengthen the sector and ensure competitiveness globally.	Innovation is fostered through research and development.	Government and industry must work together to ensure communication is informative, timely, and accessible.
Certainty and stability is fundamental for all water users.	Industry has zero tolerance for water theft.	Decision-making must ensure no negative unmitigated third-party impacts, including understanding cumulative and socio-economic impacts.	Irrigation farmers respect the prioritisation of water in the allocation framework.
All water (agricultural, environmental, cultural and industrial) must be measured, and used efficiently and effectively.			Collaboration with indigenous nations improves water management.



Introduction

NSWIC welcome the Draft Report, which we consider to be a constructive step forward. We thank the Panel for their efforts to date.

NSWIC is pleased the Draft Report has been able to provide and clarify information on the management of this event, and has highlighted important data on storages and levels of take. NSWIC is of the position that the Draft Report provides the foundation for an informed discussion on the more technical and operational aspects of managing first flush events.

NSWIC agrees with the findings in the Draft Report, and is supportive of the recommendations, although we feel further work is required to:

- 1) Refine the recommendations to be more workable and practical;
- 2) Better understand the existing rules, and the proposed rules which will shortly be in place, and their interactions with the management of first-flush events during extreme droughts (and their interactions with recommendations from this assessment);
- 3) Continue/extend the work on the procedural and decision-making aspects to the more technical and operational aspects of managing first flush events during extreme droughts.

NSWIC is particularly pleased that the Draft Report notes the preference of stakeholders, including ourselves, for the management of these events to be embedded in the proper regulatory framework – and that it has carried this forward as a recommendation. NSWIC thanks the panel for the inclusion of this important recommendation.

NSWIC is, however, concerned by the optimism in the Draft Report that attributes the many positive outcomes following this event, to the way it was managed. Ultimately and realistically, the main reason why town water supply and environmental conditions improved, was because it rained. The measures of success for managing this event should be based on the difference between typical management arrangements, and these management arrangements. Clearly establishing the counterfactual is fundamentally important to this Assessment.

NSWIC hopes this submission is valuable to the Panel in finalising the Assessment.

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Overview of Key Points

- NSWIC strongly agrees that management of first flush events amid extreme droughts should be embedded within the regulatory framework, to reduce the reliance on section 324 orders, and to improve transparency and predictability.
- There is no agreed definition of what constitutes a ‘first flush event’. NSWIC emphasises that this relates to *exceptional circumstances* – i.e. extreme droughts that cannot otherwise be managed through usual water management arrangements. Clearly defining what constitutes a first flush event is critical to ensure management is targeted to the specific needs of systems emerging from the most extreme depths of drought, and also, to preserve the integrity of normal water sharing arrangements in dealing with all other scenarios.
- Triggers to both commence, and terminate, extreme drought first flush management arrangements are essential. These should be based on a clear and transparent framework (e.g. regulation that codifies the requirements) for transparency and predictability.
- NSWIC is of the position that the Water Sharing Plans (WSP) are the best mechanism within the regulatory architecture to include provisions for managing first flush events.
- NSWIC strongly agrees that WSPs should include targets for first flush management, but also agree that these targets must be properly, robustly and scientifically developed to avoid compromising the environmental, social, cultural and economic outcomes.
- Greater understanding is required on the existing rules for managing first flush events during extreme drought, as well as the current and proposed rules to manage connectivity.
- Coming to a shared understanding of ‘connectivity’ is fundamental. Managing for connectivity will necessarily need to consider physical limitations, particularly the ephemeral/event-based nature of some systems, as well as channel capacity constraints and the hydrology of water movements across/between valleys.
- Assessment of the management of the 2020 Northern Basin First Flush event should be based on the counterfactual of managing the same scenario under normal water sharing arrangements.



Overview of Recommendations

No.	Recommendation
1A(i)	Management of first flush events should be primarily regulated through the WSP (rather than the higher-level Water Management Act 2000 (WMA). All valley-specific water management arrangements must be located in the WSP. Amendments to the WMA should be limited to guiding the WSP, or broader objectives (such as the importance of transparency and sound communications).
1A(ii)	If the management of first flush events is to be spread across multiple components of the regulatory framework, a Procedures Manual should be created for both decision makers and water users, so there is simple, clear and timely access to information to guide decision-making and to provide clarity/transparency.
1B	<p>Publicly release the Northern Connectivity Stocktake Report by the Better Management of Environmental Water Group. This work on Northern Connectivity has been conducted and was anticipated to contain much of this required information, but the report was never publicly released.</p> <p>Any remaining/additional further work on understanding connectivity in the Northern Basin to inform managing extreme drought events (as foreshadowed), should be considered a priority, so that this understanding is available to inform upcoming events. A work plan - including specific objectives, tasks and timeframes - should be published for any further work.</p> <p>Further work should be premised on an understanding of current rules, targets and requirements for connectivity, and what changes over and above those requirements (if any) are required to meet critical needs. Any new targets should have a clearly defined relation to these 'usual' flow targets.</p>
1C	<p>Triggers are required for both when extreme drought first flush management arrangements come into, and out of, effect.</p> <p>The NSW Government should expedite the development of a regulation that codifies the application of section 324 of the Act, or alternative extreme drought management arrangements, to ensure a clear and transparent framework to guide Government on finding a balance between addressing emergency situations and protecting the integrity of the water management framework.</p> <p>Further details are included in the NSWIC Submission 1. In summary, the regulation should:</p> <ul style="list-style-type: none"> • Provide clarity to all stakeholders under which circumstances alternative rules will be invoked; • Confine the circumstances when these powers can be used; • Require management of such a circumstances to be brought within the water management framework (if possible) within a reasonable timeframe; • Provide a mechanism to assess, review and publicly report on the action • Enable the development of a mitigation strategy; • Be accompanied by a comprehensive public statement that outlines the benefits and costs of the proposed action.
2A(i)	<p>The Final Report should include a summary of the existing (and upcoming proposed) rules for managing connectivity.</p> <p>The recommendations in the Report around connectivity should recognise existing/proposed rules and clarify the relationship/status of the existing rules with the recommendations contained in this Report.</p>
2A(ii)	The Final Report should address the physical limitations of connectivity between valleys, to facilitate pragmatic, achievable and constructive discussions on managing for connectivity.



2A (iii)	In making Recommendation 1, the Panel should identify the broad and varied interpretations and understandings of connectivity. It should subsequently recommend an additional piece of work on better understanding connectivity, and working with water users and communities across the Basin to come to a shared understanding of what this looks like in practice.
3	<p>The Final Report should include recommendations for DPIE to:</p> <ol style="list-style-type: none"> 1. Establish formalised networks and processes for capturing local information, to ensure relevant local knowledge is utilised; 2. Appoint Regional Managers for each valley, so there are internal human resources with an understanding of the specific needs and circumstances of each valley. These Regional Managers should have decision-making capability; <ol style="list-style-type: none"> a. In the interim – nominate a senior staff member from DPIE to each valley who then becomes responsible for understanding that valley. 3. Where possible, have staff based in local communities so they are part of the local community and can provide on-ground knowledge. Where possible, recruitment should target people from these regional communities who can bring local and historical knowledge.
4	The Final Report should include an outline of ongoing reforms which are currently being implemented.
5	<p>Revert the terminology of “floodplain harvesting storages” back to “on-farm storages”, to be reflective of the multiple forms of water they store.</p> <p>Include the total proportion of FPH take in the Final Report.</p>



Submission

1) Embedding first flush management in the regulatory framework

Overview:

NSWIC strongly agrees that first flush events should be embedded within the regulatory framework, to reduce the reliance on section 324 orders and to improve transparency and predictability.

NSWIC is of the position that the Water Sharing Plan (WSP) is the best mechanism within the regulatory architecture to include provisions for managing first flush events, rather than the *NSW Water Management Act 2000* (WMA).

NSWIC strongly agrees that WSPs should include targets for first flush management, but also agrees that these targets must be properly, robustly and scientifically developed to avoid compromising the environmental, social, cultural and economic outcomes.

The development of those targets must (a) be considered a priority, and (b) be based on a full understanding of the current rules, targets and mechanisms already in place.

Triggers to both commence, and terminate, first flush management arrangements are essential. These should be based on a clear and transparent framework (e.g. regulation that codifies the requirements).

1A) Position in the regulatory framework

NSWIC is very pleased to see a recommendation to:

“Embed the management of first flush events in the regulatory and policy framework for managing drought.”³

We support the justification of this recommendation:

“to reduce the reliance on section 324 orders and improve transparency and predictability”.

NSWIC is of the position that S324s are blunt instruments that are not suited to managing first flush events. We have called for (1) the development of a regulation that codifies the application of S324s to ensure a clear and transparency framework, and (2) the management of first flush events to be embedded in the regulatory framework. These recommendations are both premised on the need to improve transparency, clarity and predictability for water users and communities more broadly. NSWIC thus supports the statement in the Executive Summary:

“Given the level of mistrust in water management in NSW, the continued use of section 324 temporary water restriction orders outside of a clear, publicly consulted framework (to manage first flushes) and the absence of information on the outcomes are likely to consistently lead to accusations of favouritism and incompetence. As an alternative to the use of section 324 restriction orders in times of severe droughts, which are expected to increase in frequency and severity with a drying climate, water users and the community

³ Draft Report [P 68].



have expressed strong support for including details about first flush management arrangements in the WM Act and water sharing plans.”

NSWIC thanks the Panel for providing detailed analysis of where in the regulatory/legislative framework the management of first flush events could be embedded. NSWIC emphasises that whilst high-level objectives and WSP directives could be included in the WMA, the emphasis should be on the WSP as the primary instrument for managing water at a valley level. There are rules (current and proposed) in WSPs already that comply with existing WMA objectives (e.g. proposed resumption of flow rules in the Barwon-Darling).

NSWIC is concerned that in focusing too heavily on the WMA, there is an inability to manage the local context. WSPs allow for management arrangements to be more closely tied to the unique conditions of each valley, and they have already been subject to broad community consultation. The WMA is also less dynamic, and typically too broad an instrument for the degree of provisions required.

Recommendation 1A (i):

Management of first flush events should be primarily positioned in the WSP (rather than the higher-level WMA). All valley-specific water management arrangements must be located in the WSP. Amendments to the WMA should be limited to guiding the WSP, or broader objectives (such as the importance of transparency and sound communications).

NSWIC notes that whilst it is likely necessary to have, to an extent, elements of first flush management spread across the WMA, WSPs, Extreme Events Policy and Incident Response Guides, this is a rather complex and multi-layered architecture. Given timeliness is important during an event, and to avoid any confusion, a Procedures Manual should additionally be provided with all these provisions streamlined into one place, to serve as a quick reference point to decision-makers and stakeholders. Note: in the upper tributaries, management is based on forecasts instead of observations, so some flexibility is required.

Recommendation 1A (ii):

If the management of first flush events is to be spread across multiple components of the regulatory framework, a Procedures Manual should be created for both decision makers and water users, so there is simple, clear and timely access to information to guide decision-making and to provide clarity/transparency.

1B) Triggers within first flush management

NSWIC strongly agrees that:

“Embedding triggers for first flush management will ensure that water sharing plans are better equipped to deal with drought scenarios and will avoid the need for section 324 orders to override water sharing plan rules.”⁴

We also support, in-principle, the statement that:

“...hard wiring targets (numbers) into legal instruments now would risk compromising environmental, social, cultural and economic outcomes.”

Whilst we support the need for targets to be properly and robustly developed, this further work (i.e. to gain the specified necessary understanding of connectivity in the Northern Basin to inform managing these events), should be considered a priority. Importantly also, this further

⁴ Draft Report [P 70].



work must recognise and examine the mechanisms and triggers already in place for managing for connectivity and dry conditions (see 2A, below). The benefit of specific numerical targets for extreme drought events would be avoiding repeating a situation of moving targets, as well as repeating a lack of confidence from all parties in the targets set (and the processes by which they were set).

We also note that the drought in NSW is not over, and recently concerns have been raised about the Darling River once again drying up owing to little rainfall since this event. This reinforces the high-priority nature of understanding rules and requirements.

Importantly, triggers for extreme drought management arrangements cannot replace or overlap existing WSP rules, only add to them. These new triggers must only address/apply to *exceptional circumstances* of extreme drought.

Ultimately, having a solid understanding of connectivity targets and requirements across the system, as well as existing rules and mechanisms to manage for connectivity, is fundamental for both managing extreme drought events, and developing any new management arrangements for these events.

It is also an issue in some systems (e.g. Border Rivers) in writing rules into a tributary's WSP to meet a downstream requirement which could be met by multiple other sources. Consideration must be given to these complex systems. Furthermore, triggers need to take into account observations, but also forecasts.

Recommendation 1B:

Publicly release the Northern Connectivity Stocktake Report by the Better Management of Environmental Water Group. This work on Northern Connectivity has been conducted and was anticipated to contain much of this required information, but the report was never publicly released.

Any remaining/additional further work on understanding connectivity in the Northern Basin to inform managing extreme drought events (as foreshadowed), should be considered a priority, so that this understanding is available to inform upcoming events. A work plan - including specific objectives, tasks and timeframes - should be published for any further work.

Further work should be premised on an understanding of current rules, targets and requirements for connectivity, and what changes over and above those requirements (if any) are required to meet critical needs. Any new targets should have a clearly defined relation to these 'usual' flow targets.

1C) Triggers to commence and terminate first flush management arrangements

There is presently no agreed definition of what constitutes a 'first flush event'. NSWIC emphasises that we are talking about *exceptional circumstances* – i.e. extreme droughts that cannot otherwise be managed through usual water management arrangements. Clearly defining this is critical to ensure management is targeted to specific needs of systems emerging from the most extreme depths of drought, and also, to preserve the integrity of normal water sharing arrangements in dealing with all other scenarios.

NSWIC is of the position that established triggers are required for both:

- 1) Determining when extreme drought management arrangements should come into place, as opposed to usual water sharing arrangements (i.e. the indicator of disconnection); and



- 2) Determining when extreme drought management arrangements terminate, and usual water sharing arrangements should resume (i.e. measure of success for connectivity).

NSWIC is concerned that in the management of this event, so much focus was on (1), that processes and decisions around (2) were lacking.

This is somewhat reflected in the Draft Report, in stating:

“...it’s worth noting that, in the vast majority of cases, section 324 orders are used to cope with the decreasing availability of water, not the increasing availability of water. Even in the Extreme Events Policy and incident response guides, section 324 orders are referred to as a tool to manage water sources as they go into drought, rather than as they come out of drought.”

However, we feel the Final Report should go a step further to deduce from this statement that events amidst extreme drought require clearly established trigger points for when such management arrangements come into, and out of, effect. We note that an example trigger, for (1), is included in the Draft Report, specifically:

“Normal access rules cease to apply when the decision-maker determines that a water source is in stage 4 drought.”

NSWIC has two concerns about this example:

- I. *“Normal access rules cease to apply when...”*

This does not resolve the issue of overriding WSP rules, as it does just that explicitly. NSWIC alternatively recommends that this example states: *“First flush management rules, as outlined in the water sharing plan, apply when...”*.

- II. *“...to apply when the decision-maker determines that a water source is in stage 4 drought.”*

NSWIC appreciates the intent of this example is to identify the circumstances in which extreme drought rules could apply. We are of the view this example would actually be a step further away from current protections on enacting a S324. At present, enacting a S324 requires it to be in the public interest, for a specified period, and for the purposes of coping with *“a water shortage, threat to public health or safety or to manage water for environmental purposes”*. This too is insufficient and requires further development to codify the requirements.

NSWIC thus alternatively recommends that a regulation is developed outlining specific circumstances and requirements only, in which water sharing rules could cease, or preferably that alternative pre-determined rules set out in the WSP come into place.

Determination of a stage 4 drought may form part of that broader framework, but this must be tied to a timeline. Further details of this, including an example regulation, are included in NSWIC Submission 1.

Recommendation 1C:

Triggers are required for both when extreme drought first flush management arrangements come into, and out of, effect.

The NSW Government should expedite the development of a regulation that codifies the application of section 324 of the Act, or alternative extreme drought management arrangements, to ensure a clear and transparent framework to guide Government on finding



a balance between addressing emergency situations and protecting the integrity of the water management framework.

Further details are included in the NSWIC Submission 1. In summary, the regulation should:

- Provide clarity to all stakeholders under which circumstances alternative rules will be invoked;
- Confine the circumstances when these powers can be used;
- Require management of such a circumstance to be brought within the water management framework (if possible) within a reasonable timeframe;
- Provide a mechanism to assess, review and publicly report on the action
- Enable the development of a mitigation strategy;
- Be accompanied by a comprehensive public statement that outlines the benefits and costs of the proposed action.

2) Connectivity

Overview:

NSWIC recognises the importance of connectivity and notes the importance of coming to a shared understanding of connectivity (definition, mechanisms to operationalise, and measures of success).

It must be recognised that connectivity is already considered as part of the WSP (particularly in the regulated systems) in the definition and sharing of supplementary events.

Significant work has been undertaken in recent times to develop connectivity rules and requirements specifically for these circumstances, although these were not adhered to during this event. Current rules and mechanisms for managing connectivity must be fully understood.

Mechanisms to manage for connectivity must be pragmatic, and will necessarily need to consider the physical limitations of systems – such as the dynamic and ephemeral nature of many systems.

2A) Understanding Existing Connectivity Measures

A number of measures are already in place to provide for connectivity, as well as proposed measures which will shortly come into effect. There have been significant efforts by water users and Government Departments over time to develop these measures for the management of these events – for example, the Resumption of Flows rules in the Barwon-Darling. However, these rules were not adhered to during this event. NSWIC is concerned that in the management of this event, there was a lack of understanding by agency staff of the existing and proposed rules which have been developed to manage these events, and as a result, those specifically designed rules were also lifted and not abided by.

Recommendation 2A (i):

The Final Report should include a summary of the existing (and upcoming proposed) rules for managing connectivity.



The recommendations in the Report around connectivity should recognise existing/proposed rules, and clarify the relationship/status of the existing rules with the recommendations contained in this Report.

2B) Physical limitation on managing for connectivity

Any measures that strive for connectivity must pragmatically consider the physical limitations of systems, including:

- The ephemeral and event-based nature of some systems;
- Channel capacity constraints to deliver water between systems, including choke points;
- Hydrology to understand the movement of water across and between valleys, including into/out of river systems and across floodplains;
- Rainfall patterns, particularly in areas with highly variable rainfall, and the dependency of inflows on rainfall;
- Changing climatic patterns with more extreme and prolonged dry periods.

Managing for connectivity will necessarily be subject to these physical limitations. The result of these physical limitations will mean that the management and expectations of connectivity will have to be reflective of these limitations.

Whilst NSWIC appreciates the importance of connectivity when circumstances allow, it is important in a nation with such a variable climate and subject to these physical limitations, that a simple understanding of connectivity does not become the threshold or performance indicator for water management. We therefore encourage the Panel that in making Recommendation 1 to note the natural limitations on consistently providing for and promoting connectivity. This is important to alleviate any unattainable expectations of people that any system of water management could provide for connectivity consistently in such a climatic scenario.

We reiterate, that any rules created to manage a ‘first-flush’ during extreme drought are for exceptional circumstances only. In coming to a shared understanding of connectivity (see 2C), connectivity must be appropriately defined in the context of ephemeral systems where a first flush is normal. However, a first flush to provide for critical human or environmental needs that could not otherwise be met under standard water sharing arrangements is not the norm. Thus only the latter should be the subject of any special provisions.

Recommendation 2A (ii):

The Final Report should address the physical limitations of connectivity between valleys, in order to facilitate pragmatic, achievable and constructive discussions on managing for connectivity.

2C) Coming to a shared understanding of connectivity

Connectivity is a subjective term with a broad scope of interpretation, and further work is required amongst all stakeholders to come to this shared understanding. A shared understanding is required on what promoting and providing for connectivity looks like in-practice, and how this can be operationalised.

The questions that need to be asked, include:



- What is connectivity?
- How do we achieve connectivity?
- When can we achieve connectivity?
- Where can connectivity be achieved?
- What does success look like in managing for connectivity?

Recommendation 2A (ii):

In making Recommendation 1, the Panel should identify the broad and varied interpretations and understandings of connectivity, and subsequently recommend an additional piece of work on better understanding connectivity, and working with water users and communities across the Basin to come to a shared understanding of what this looks like in practice.

3) Local Knowledge

NSWIC fully agrees with the findings around the need to better incorporate local knowledge in decision-making. NSWIC is of the position that a more formal process is required to utilise this knowledge to (a) ensure this knowledge is accessible in a timely way, and (b) to protect water users and their representative groups in supplying this information and to manage their responsibilities.

Recommendation 3:

The Final Report should include recommendations for DPIE to:

1. Establish formalised networks and processes for capturing local information, to ensure relevant local knowledge is utilised;
2. Appoint Regional Managers for each valley, so there are internal human resources with an understanding of the specific needs and circumstances of each valley. These Regional Managers should have decision-making capability;
 - a. In the interim – nominate a senior staff member from DPIE to each valley who then becomes responsible for understanding that valley.
3. Where possible, have staff based in local communities so they are part of the local community and can provide on-ground knowledge. Where possible, recruitment should target people from these regional communities who can bring local and historical knowledge.

4) Understanding the Reform Pathway

The Final Report should acknowledge that there is a full suite of ongoing reforms, many of which will fill the missing pieces arising from this Assessment. For example, the new NSW non-urban metering framework; the Northern Basin toolkit measures; the Healthy Floodplains Project that includes requiring floodplain harvesting to be licenced; and new compliance activities. These new measures will provide Government with a new range of tools for managing water and events like these.

Recommendation 4:

The Final Report should include an outline of ongoing reforms which are currently being implemented.



5) Floodplain Harvesting Facts & Figures

NSWIC was very pleased to see the facts and figures of storage capacity and take referenced in the Draft Report. Whilst we are aware that this information had previously been made available on the DPIE website, the reference in this Report increased the awareness and accessibility of these figures.

NSWIC is, however, concerned about the terminology “floodplain harvesting storages”. These storages are multiuse storages, which are used to store floodplain harvesting, regulated water, unregulated water, groundwater, supplementary water and farm run-off. Renaming these farm storages to “floodplain harvesting storages” implies that all the water they contain is from floodplain harvesting – which is not accurate. This subsequently leads to a high risk of the volume of water in storages being misinterpreted as floodplain harvesting take. This did occur in recent media and public discussions, with the change in the volume of water in these storages (220GL) being reported in the media as FPH, when it was more than likely a combination of forms of take.

We do note that this issue is clarified, in that:

“the analysis captures the change in volume of water held in storages and does not identify the individual sources contributing to this stored water. This stored water might be from direct rainfall, on-farm runoff/tailwater capture, harvesting from floodplains or pumping from rivers and aquifers.”⁵

However, given the confusion around whether the 220GL increase in volume in storages was from floodplain harvesting or not, indicates that further clarification is needed. This clarification could come in the form of providing more specific data, and not using the term “floodplain harvesting storage”.

Recommendation 5:

Revert the terminology of “floodplain harvesting storages” back to “on-farm storages”, to be reflective of the multiple forms of water they store.

Include the total proportion of FPH take in the Final Report.

Exemption Regulation

NSWIC notes that there is currently a simultaneous Parliamentary Inquiry into the *Water Management (General) Amendment (Exemptions for Floodplain Harvesting) Regulation 2020*. This Exemption Regulation is a separate (but related) matter, and thus should be treated separately by Government.

We refer the Panel to the NSWIC submission on the Exemption Regulation, for further information.⁶

6) Consideration of Compensation Requirements

NSWIC notes that under legislation, water property rights are protected, and any reductions to access or reliability are compensable. These arrangements were formed as part of the

⁵ Draft Report, P 42 & 43.

⁶ <https://www.nswic.org.au/submissions-2020/>



National Water Initiative (NWI - Clause 48 to 50). Legislation has very explicitly brought these NWI clauses forward. Specifically, under the Water Act 2007 (Cth), schedule 3A (Risk Assignment Framework) states:

[50] Governments are to bear the risks of any reduction or less reliable water allocation that is not previously provided for, arising from changes in government policy (for example, new environmental objectives). In such cases, governments may recover this water in accordance with the principles for assessing the most efficient and cost effective measures for water recovery.

In managing events during an extreme drought through a S324, or through alternative management arrangements, Governments must give utmost consideration to these provisions.

7) Additional Points for Consideration

Further points for consideration which we believe should be added to the Final Report:

- **Counterfactual** – the Final Report would benefit from having a more detailed comparison of these management arrangements compared to what would have otherwise occurred under normal management arrangements (i.e. establishing a counterfactual).
NSWIC recognises the table on the NSW DPIE website provides some figures, whilst the recently released “A satellite imagery derived assessment of take and water protected in the Northern Basin first flush flows of February 2020” (herein, DPIE Satellite imagery Assessment) also states “If the restrictions weren’t in place and the standard water sharing plan arrangements were followed, an additional 100,000 ML of supplementary water could have been accessed”.
Whilst every drop of water is valuable, in the scheme of bulk water management in river systems, this is a relatively small figure. Further unpacking the exact rules and requirements, in addition to the figures, would be valuable in the Final Report.
- **Lack of timeliness of decision-making** – NSWIC notes that water users were highly critical of the lack of timeliness of decision-making, particularly with decisions being made late on a Friday afternoon (see Submission 1)⁷. NSWIC feels that the Draft Report does not go into this concern in detail, but that it is an important point which should be raised further in the Final Report.
- **Data** – NSWIC appreciated the additional data that was provided by NSW DPIE in the Satellite imagery Assessment. It is particularly valuable to have levels of take expressed as a percentage of total flows, as this gives appropriate and necessary context. The figures that “During February 422,000 ML flowed into the regulated tributaries, of which only 31,000 ML (7%) was NSW take...”⁸ are very valuable for this reason. Many people were surprised to hear how low these percentages were, which demonstrates just how important it is to have this clarified. Having these percentage figures brought clearly and upfront into the Final Report would be valuable.
- **Cost-Benefit Analysis of the Event** – NSWIC is of the view that a cost-benefit analysis of the event should be conducted (and included in the Final Report), and that this should be a requirement for all ongoing instances when alternative extreme drought arrangements are implemented. In managing events this way, there are inevitably winners and losers, and this should be clearly outlined. Managing flows this way also results in transfers of wealth between communities and regions, where communities who forgo water access miss out on economic stimulus to their community; whereas regions who do get access enjoy the economic stimulus.

⁷ <https://www.nswic.org.au/submissions-2020/>

⁸ NSW DPIE “A satellite imagery derived assessment of take and water protected in the Northern Basin first flush flows of February 2020” 2020 [P i].



- **Data on the economic figures of lost access** – this data should look at the opportunity costs of the forgone water access to communities during this period, including the multiplier impacts for the regional economy and drought recovery. Ideally monetary figures for each valley should be determined. This is important to truly understand and appreciate the impacts of the alternative management arrangements for the upstream businesses and communities.
- **Role of social media** – NSWIC was concerned during the event that management decisions were being made based on public perception, as opposed to actual scientifically determined requirements. In the new age of social media, this is likely a new operating environment for decision-makers, but the influence this has on decision-making must be recognised and strictly avoided.
- **Understanding losses** – it is important that the environmental importance of losses is understood. In parched floodplains and dry rivers, large losses occur in the rehydration of landscapes. The terminology ‘loss’ is often associated with being wasted, or having no utility or value. Whilst generally speaking, losses should be minimised in river operations to run rivers as efficiently as possible and to maximise available water for all water users, it must be recognised and communicated that ‘losses’ in this context serve important environmental purposes.
- **Targeted approaches** – NSWIC recommends that targeted approaches for unregulated/regulated systems, as well as terminal systems, are required rather than subjecting all systems to the same blanket restrictions.
- **Management of Menindee Lakes** – NSWIC notes that potential/likely changes to Menindee Lakes, and the management of the Lakes moving forward, may impact on operational rules. This must be a consideration in any proposed changes to extreme drought management.
- **Climate change** - Reduced inflows due to climate change will automatically be allowed for in the WSPs, under the principle of sharing the available resource.

Conclusion

NSWIC thanks the Panel for the Draft Report, and for its efforts engaging with water users as part of this Assessment.

NSWIC is generally supportive of the findings and recommendations in this Draft Report, but would like to see further steps to improve understanding of the current management requirements already in place; and to refine the recommendations to be more workable, practical and pragmatic so they can be best utilised.

NSWIC and our members are available at your convenience, if you have any questions or would like any further information,

Kind regards,

NSW Irrigators' Council.