

Level 5, 491 Kent Street,
Sydney NSW 2000

PO Box Q640,
Queen Victoria Building NSW 1230



Tel: 02 9264 3848
nswic@nswic.org.au
www.nswic.org.au

ABN: 49 087 281 746

SUBMISSION

Managing groundwater extraction to extraction limits

March 2021



Contents

NSW Irrigators' Council.....	3
NSW Irrigation Farming.....	3
NSW Irrigators' Council's Guiding Principles	4
Background.....	5
Options.....	5
Scope.....	5
Principles	6
Tracking Groundwater Extraction.....	7
Conclusion	8



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 managing groundwater extraction to extraction limits.

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.



Background

Water Sharing Plans (WSPs) limit the amount of water that can be extracted from a groundwater source by establishing a Long-Term Average Annual Extraction Limit (LTAAEL), measured on a rolling annual average basis. WSPs have flexibility to temporarily allow groundwater extraction above the annual limit, for a set period of time. This is important for a number of reasons, such as to provide for climatic variability where surface water availability may be reduced. However, once average annual extraction exceeds the compliance triggers (outlined in the WSP), groundwater access must then be reduced until extraction is below the annual limit. This ensures compliance with the long-term average Sustainable Diversion Limit (SDL).

Compliance is assessed in accordance with the relevant WSP rules, and this varies between WSPs. Annual average extraction is measured using either a three or five-year rolling period. The exceedance allowed also varies between WSPs but is usually five or 10 per cent above the plan's annual limit.

Non-compliance occurs when this calculated average annual extraction exceeds the LTAAEL by either five or 10 per cent (depending on the WSP). In many of the new WSPs (from 1 July 2020), the time period/compliance triggers in which extraction can exceed the annual limit has been changed. These changes came into effect for the 2020-21 water year.

Options

If average extraction exceeds the compliance trigger for the LTAAEL, or the SDL set out in the WSP, there are two ways a reduction to access can occur:

- *Restricting the water allocations that can be taken, assigned (transferred) under section 71T of the Water Management Act 2000, or otherwise debited or withdrawn from a water allocation account in the following water year;*
- *Announcing available water determinations of less than 100% (or 1 ML/unit share) for lower-priority access licences in the following year.*
- *A combination of these methods.*

NSWIC welcomes the public consultation to give water users the opportunity to provide comment on which method or combination of methods is most suitable to water users in particular areas. Different combinations may be more appropriate in different areas. NSWIC notes that valleys have arrived at various preferred approaches, and endorses that unique approaches for each valley is important given the unique circumstances of each valley.

Scope

The focus of this initial consultation is on areas most likely to exceed groundwater extraction limits in 2020-21. This includes:

- Great Artesian Basin Eastern Recharge
- Lower Murrumbidgee Deep
- Upper Macquarie
- Lower Lachlan
- Upper Namoi Zone 3
- Upper Namoi Zone 5
- Upper Murray

Given the localised nature of determining which method, or combination of methods, is most suitable to water users in each area – NSWIC refers to the submissions of our member organisations in these areas, and endorses the positions provided.

This submission provides state-wide principles and considerations.



Principles

The below principles were formed based on questionnaire responses by NSWIC Delegates & Representatives, following an internal NSWIC Discussion Paper and workshop with our Groundwater Portfolio Committee. These principles were provided to NSW DPIE in 2020.

1) Mechanisms to address non-compliance

1A) The SDL compliance mechanism must be based on the specific circumstances of each valley and thus will need to vary between valleys. Consistency of methodology is not as important as ensuring accuracy and appropriateness of the method in each individual circumstance.

1B) The mechanism determined for each valley, should be the mechanism identified to have the most minimal impact on water users. This should include an option for a hybrid approach (Use Limit & AWD) or innovative alternatives, where determined suitable.

Action: A more in-depth behavioral analysis is required to understand the profile of water use in each system to inform this process, and to avoid basing decisions on assumptions.

1C) A process should be established which allows the development of management options in each valley, flexibly tailored to the circumstances of each valley, but based on shared principles and processes.

2) Time period over which compliance is assessed

There are varying views on the time period over which compliance is assessed and in which measures are implemented. This is owing to balancing a view that longer time periods better capture climatic cycles thus maintaining compliance in the longer term, but also risks exposing water users to more severe compliance actions.

2A) This should be determined in accordance with 1C and the water use profiles of each valley.

3) Time period over which compliance measures are implemented

3A) Compliance should be smooth and avoid shocks to water access arrangements.

3B) The time period over which compliance measures are implemented should be a function of the time period over which compliance is assessed.

3C) Consistency between the NSW and MDBA compliance processes is required to avoid confusion and/or duplication. NSWIC notes that in the DPIE Fact Sheet “Compliance with long-term sustainable diversion limits for groundwater sources”, it states: “*There is non-compliance with an SDL for the groundwater SDL resource unit if: the sum of annual actual take in the water accounting periods since 1 July 2019 is greater than the sum of annual permitted take for those water accounting periods plus 20% of the SDL for the SDL resource unit, and NSW does not have a reasonable excuse for the excess*”³. It should be considered a ‘reasonable excuse’ for annual SDL non-compliance to occur if subject to NSW processes to reach compliance over a longer time period.

Action: Clarification of the compliance expectations from the MDBA is required.

³ https://www.industry.nsw.gov.au/data/assets/pdf_file/0009/230868/Basin-Plan-SDL-requirements.pdf



4) Preferred approach for consultation on how the compliance approach is determined

4A) Management approaches are to be determined in collaboration with local water users, to ensure approaches are effective and based on local water user input.

4B) Water users should have an active role in designing compliance mechanisms and approaches upfront, and require access to sufficient detail on issues, time and opportunity for workshops, to reach informed and participatory decisions.

4C) DPIE to ensure early engagement with water users to provide forewarning for groundwater resources at risk of compliance breach (such as through a WAS). DPIE to provide guidelines to water users to provide additional clarity on the possible vicinity of availability (on the understanding they are indicative only).

NSWIC acknowledges the engaged and responsive consultation by NSW DPIE-Water to work with water users through this process.

5) Providing certainty and predictability

5A) Once the suitable compliance mechanism approaches have been determined, this should be locked-in for a defined period to provide certainty, as water users will manage in accordance with that approach.

6) Reviews

6A) Periodic (annual) reviews of extraction data against compliance triggers are required.

Action: Water users should be encouraged to enter their groundwater meter readings into iWAS.

Action: WaterNSW to prioritise meter readings for groundwater zones at risk of breaching.

7) Property Rights

7A) Managing compliance should seek to protect property rights of water entitlement holders to either use or trade up to the SDL.

8) Impact Assessments

8A) Transparency of assessment methodology, with reporting, is required to demonstrate the process for minimizing/avoiding risks of new access points on both the reliability of other water users locally, and also the overall sustainability of the aquifer.

[Action] An online portal for approvals should be investigated as a means to improve transparency.

Tracking Groundwater Extraction

NSWIC notes that the new online dashboard ‘tracking groundwater extraction against extraction limits’ showing the ‘status of groundwater extraction’⁴ is a positive development to show the:

- *volume that if extracted will reach the compliance trigger (in ML, calculated annually)*

⁴ <https://www.industry.nsw.gov.au/water/allocations-availability/tracking-groundwater>



- *volume remaining to be extracted before reaching the compliance trigger (in ML, calculated throughout the year)*
- *the likelihood that access to groundwater may be reduced in the next water year.*

The ratings of unlikely, low, medium, high and triggered are helpful for water users to understand the status of use in their valley, and plan for possible reductions if compliance triggers are reached.

Conclusion

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

NSWIC notes that a number of valleys have requested additional modelling to assist in responding to this process. Providing this modelling would enhance the confidence and acceptance of water users in the process.

NSWIC appreciates the consultation approach of DPIE-Water for this process, particularly in scheduling consultation sessions outside of the harvest period.

Kind regards,

NSW Irrigators' Council.