BARWON-DARLING WATER

SUBMISSION to

Review of the NSW Non-Urban Metering Policy – November 2023

E: water.enquiries@dpe.nsw.gov.au

Submission from:

Barwon-Darling Water Inc
PO Box 573, Bourke NSW 2840
[redacted]

25 November 2023

Barwon Darling Water

Barwon-Darling Water Inc (BDW) is the peak body representing water users on the unregulated Barwon-Darling River.

BDW is an independent, apolitical body, funded by its members.

It was set up to provide advice on the Barwon-Darling River to members and decision-makers, to assist with policy development, and to advocate on behalf of its members.

BDW membership is made up of local water user groups – including local government, irrigators, and basic right users. We represent all licence holders and water users on the Barwon-Darling – from Mungindi on the Queensland border to the Menindee Lakes.

BDW members have been involved in the water reform process, especially in relation to the unregulated Barwon-Darling River, for many years. This work has included:

- Co-operating with other stakeholders to create a set of environmental flow rules for the Barwon-Darling via the first Barwon-Darling River Management Committee.
- Assisting in development of the Barwon-Darling Cap Management Strategy 2007.
- Assisting with the development of the Barwon-Darling Water Sharing Plan 2012.
- Representation on the Barwon-Darling Customer Advisory Group of WaterNSW.
- Working with DPIE Water on development of the Floodplain Harvesting Strategy;
- Working as part of the Stakeholder Advisory Panel on development of the Barwon-Darling Water sharing Plan and Barwon-Darling Water Resource Plan 2020.
- Responding to Basin Plan issues over the years.

We have also been involved in discussions regarding water reform in the northern basin and specifically on the Barwon-Darling River since the mid 1990's.

Barwon-Darling Water is a member of NSW Irrigators Council and the National Irrigators Council and has strong connections with other valley and industry groups including the Northern Irrigators Group and Cotton Australia.

Our members welcome the opportunity to comment on this Independent Review into the February-March 2023 fish deaths in the Darling-Baaka River, Menindee.

Submission

The members of Barwon-Darling Water support the NSWIC submission *Addressing Metering Compliance Barriers* for the NSW Governments R*eview of the NSW Non-Urban Water Metering Policy.*

The NSWIC submission identifies a wide range of barriers that delay or completely prevent water users from complying with the NSW Non-Urban Water Metering Policy.

These barriers are beyond the control of water users across the state who seek to comply with metering rules. They prevent effective policy implementation, and consequently there is a high likelihood of policy failure if they are not addressed.

Barwon-Darling Water, along with the wider NSW irrigation industry, supports continual improvements to metering, monitoring, and measurement of water use, sustainable limits on use, and has zero tolerance for non-compliance with water laws.

The Metering Policy, which is now approaching its fifth year of implementation, has seen many water users across NSW invest significant time, finance, and labour resources in efforts to achieve compliance where possible. This investment means there is generally a reluctance to 'water down' the policy. Rather, practical means need to be found to allow water users to achieve full compliance.

The current situation is a very unfortunate, and disappointing, outcome for our industry. In our view, current low rates of full compliance demonstrate that government has failed to effectively design and deliver the reform, and to address barriers at the earliest opportunity.

Many problems reported at the commencement of implementation of the policy remain as barriers today.

However, we appreciate recent efforts by the NSW government and DPE-Water to identify solutions to these barriers to compliance.

Public acknowledgement of these barriers provides transparency on reasons for non-compliance, noting that many are beyond the control of water users.

Consequently, we would like to see the urgent removal of these barriers to allow full compliance by all NSW water users.

The NSWIC submission provides a suite of helpful recommendations towards this outcome. These recommendations provide evidence of the industry's desire to work collaboratively to reach full metering compliance.

As a high-level overview, we support the NSWIC's recommendations to:

1. Provide an automatic temporary exemption for known barriers.
2. Establish a pathway to correctly nominate inactive works.
3. Remove inconsistent metering conditions on licences.
4. Revisit metering requirements that target risk.
5. Revisit meter installation and certification requirements.
6. Revisit management of telemetry systems.
7. Revisit overland flow measurement pathways.
8. Improve practical reporting process for general water usage reporting.
9. Improve practical reporting processes for faulty meters.
10. Review cost-sharing arrangements; and
11. Develop a clear communication strategy, particularly for coastal NSW.

The members of Barwon-Darling Water appreciate the consultation opportunities provided to us through this review and look forwards to further occasions to provide feedback on addressing barriers to metering compliance.

Conclusion

Representatives from Barwon Darling Water are available to further discuss any of the matters raised in this submission.

Please contact Ian Cole on [redacted].

Australian Government
Commonwealth Environmental Water Holder

Our ref: EC23-003332

Review of the Non-urban metering rules
Department of Planning and Environment - Water
Locked Bag 5022
Parramatta NSW 2124
Via email: water.enquiries@dpie.nsw.gov.au

To whom it may concern,

Thank you for the opportunity to respond to the *Review of the non-urban metering framework issues and options paper*.

The Commonwealth Environmental Water Holder (CEWH) is responsible for the management of the Commonwealth environmental water holdings to protect and restore the environmental assets of Murray-Darling Basin. This function is governed by the *Water Act 2007* (Water Act), the *Basin Plan 2012* (the Basin Plan) and the Basin-wide environmental watering strategy. I am also required to manage the Commonwealth environmental water portfolio to ensure its effective, efficient and ethical use, consistent with the requirements of the *Public Governance, Performance and Accountability Act 2013* (PGPA Act).

Importance of the NSW non-urban metering framework

Like all water users, the CEWH benefits from robust, fair water compliance and measurement frameworks that enable transparent accounting of water for all licence holders. This submission identifies metering implementation issues and challenges that are unique to the delivery of water for the environment and not clearly addressed in the options paper. It is critical that these issues are carefully considered and resolved. A key intent of the framework is to protect the environment from the overextraction of water resources. However, aspects of the framework mean that opportunities to realise environmental outcomes by delivering water that has been recovered for the environment under the Basin Plan are being missed or compromised.

Highlighting these issues and challenges should not be misconstrued as a desire to avoid accountability, or fair payment for the delivery of Commonwealth water for the environment. Rather, they indicate that case-by-case consideration, an alternative regulatory pathway, or the development of a different approach, may be required.

Incorporating environmental water delivery into the metering framework

CEWH staff have participated in earlier NSW policy development and engagement processes for non-urban metering. Many of the issues discussed herein have been raised during earlier discussions. The review of the non-urban metering framework provides an important opportunity to reassess these issues and create a clear policy framework for measuring water use that varies from fixed-point pumping.

It is notable that the options paper places a policy emphasis on irrigation water use. While a focus on consumptive water use is important for addressing risks of overextraction, a 'one-size-fits-all' approach does not recognise the inherent differences and overall lower risk profile associated with environmental water delivery. Some environmental water delivery modes can practicably achieve compliance with metering requirements, whereas other modes cannot due to unique operating contexts and differences to irrigation water delivery.

The following general approaches for metering environmental water delivery are currently in use. Their future status under the new metering framework is unclear:

- Wetlands that require infrequent watering (once every 3 or more years) use mobile pumps, which are frequently moved between sites. While pumps are metered and can readily be made tamper-proof and validated by a Duly Qualified Person (noting challenges associated with availability of such personnel), the requirement for telemetry is not feasible as pumps cannot then be moved from site to site and technology failures in remote locations are common. There are numerous sites that require 'top-up' watering following recent flooding for priority environmental outcomes, including for threatened species, that are currently missing out due to the telemetry requirement.

- Hydrological assessment is used for water delivered through regulators. Additional metering infrastructure in regulators can impede fish passage and limit natural connection between the river and wetlands.

- Instream environmental water deliveries in northern NSW are accounted for at WaterNSW gauge sites.

- A water balance method is used for floodplain overland flows.

Accounting and measurement arrangements for different categories and types of environmental water use are documented via existing protocols, for example the *NSW Prerequisite Policy Measures Manual for the NSW Murray Lower Darling.* Examples of methods of measurement include meters, direct measurement devices, hydrographic flow measurement, extrapolation from gauging, assumed use/loss methods and models. The policy should take the opportunity to clarify metering requirements for these water uses or signpost a separate process for them. This will help ensure environmental outcomes are not interrupted during the implementation of the framework.

A risk-based framework for metering environmental water

The CEWH supports a risk-based approach to the metering framework. An overarching risk-based framework can incorporate both environmental water and irrigation water, whilst providing for different underlying risks, context and controls, for example:

- irrigation and environmental water use face different risks of theft and meter tampering
- the larger-scale and unique approaches for delivering environmental water delivery may suit the development of a suite of fit-for-purpose metering methodologies. Whereas, metering irrigation water delivery may suit a more consistent approach with a limited number of approved methodologies
- the issues and options paper discusses the risk-based framework primarily in the content of exemptions and a lighter touch regulatory approach for smaller water uses. An alternative risk-based approval pathway could apply to environmental water metering controls.

The CEWH does not seek an exemption from the metering requirements and is sensitive to the potential for a perception of non-compliance. The preferred solution is a clear policy framework that identifies practicable and proportionate options for compliant environmental water delivery.

Overland flow and floodplain harvesting

The CEWH supports the development of robust water compliance and measurement frameworks for overland flow and floodplain harvesting. The options paper notes that the rollout of the NSW Floodplain Harvesting Measurement Policy is facing "implementation challenges" (p16) and signposts the future development of a framework for:

> *"overland flow [to be] measured by more appropriate equipment that better suits this type of water take" (p30)*

and that:

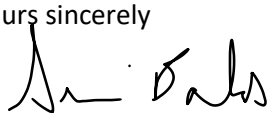
> *"There may be lessons from this review that could be applied in the floodplain harvesting measurement context in the future" (p16)*

The CEWH proposes that the 'lessons from this review that could be applied' include the addition of an over-arching risk-based framework to link both the future metering policy and Floodplain Harvesting Management Policy.

Overland flow and floodplain harvesting has the potential to become a highly contested policy issue under a drying climate. A transparent, risk-based framework would be an important building block for the future management of these water uses. The CEWH welcomes further involvement in the development of these approaches.

If you require further information or wish to discuss this submission please contact Liz Rodway (liz.rodway@dcceew.gov.au).

Yours sincerely



Dr Simon Banks

Commonwealth Environmental Water Holder
22 November 23

COTTON AUSTRALIA

Advancing Australian Cotton

NSW Government

Department of Planning and Environment - Water Group

E: water.enquiries@dpie.nsw.gov.au

24 November 2023

Review of the NSW Non-Urban Metering Policy – November 2023

Cotton Australia is the peak organisation representing Australia's 1,500 cotton growers, many of whom grow and irrigate in New South Wales. Cotton Australia is an active member of NSW Irrigators Council.

As a member of the NSW Irrigators' Council (NSWIC), this letter confirms that Cotton Australia supports the NSWIC submission *Addressing Metering Compliance Barriers* for the NSW Governments R*eview of the NSW Non-Urban Water Metering Policy.*

The NSWIC submission identifies a wide-reaching range of barriers that delay or completely prevent water users from complying with the NSW Non-Urban Water Metering Policy. These barriers are beyond the control of water users across the state who seek to comply with metering rules, they prevent effective policy implementation, and consequently there is a high likelihood of policy failure if they remain un-addressed.

The NSW irrigation industry supports continual improvements to metering, monitoring and measurement of water use; supports sustainable limits on use; and has zero tolerance for non-compliance with water laws. The Metering Policy, now approaching its fifth year of implementation, has seen many water users across NSW invest significant time, finance, and labour resources in efforts to achieve compliance where possible. This investment means there is generally a reluctance to 'water down' the policy in most (but not all) instances, rather, there needs to be a means to achieve full compliance.

The current state of affairs is a very unfortunate, and disappointing, outcome for our industry. In our view, current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity. Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

While attending a recent water meeting in Bourke, Cotton Australia was not surprised, but disappointed, by figures that showed a very large percentage of non-compliance incidences/reports by NRAR, where related to lack of meters on inactive works. This is just one, but a very significant example of how non-compliance rates have been greatly distorted under the current arrangements.

We appreciate the recent effort of the NSW Government and DPE-Water to identify problems and possible solutions to metering compliance barriers. The acceptance and public acknowledgement of these barriers provides transparency on

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reasons for non-compliance, noting that many are beyond the control of water users. However, the next step forward, with urgency, is the adoption of practical and enduring resolution of these barriers. The NSWIC submission provides a suite of helpful recommendations towards this goal, demonstrating the desire of the industry to work collaboratively to reach full metering compliance. As a high-level overview, NSWIC recommends:

1. Provide an automatic temporary exemption for known barriers;
2. Establish a pathway to correctly nominate inactive works;
3. Remove inconsistent metering conditions on licences;
4. Revisit metering requirements that target risk;
5. Revisit meter installation and certification requirements;
6. Revisit management of telemetry systems;
7. Revisit overland flow measurement pathways;
8. Improve practical reporting process for general water usage reporting;
9. Improve practical reporting processes for faulty meters;
10. Review cost-sharing arrangements; and
11. Develop a clear communication strategy, particularly for coastal NSW.

Cotton Australia appreciate the consultation opportunities provided to us through this review, and look forwards to further occasions to provide feedback on addressing metering compliance barriers.

Yours sincerely,

Michael Murray,
General Manager
Cotton Australia
[redacted]

David Williams

Williams Dairy trust

Submission to the Review of Non-Urban Water Metering.

To whom it may concern,

My name is David Williams and I am writing to you today to share my experiences and ideas regarding the Review of Non-Urban Water Metering.

Our family operates a 350-cow dairy farm on [redacted] in the Hunter Valley. We have a 1000ML allocation from Lostock Dam and rely heavily on the ability to irrigate. I am also involved with Paterson Water Users, on the committee of the Hunter Valley Water Users, and on the Hunter Coastal Customer Advisory Group, along with being involved in numerous other local water issues.

I strongly advocate for an independent review to rectify the numerous shortcomings highlighted in the discussion paper. It is essential to emphasize that relying on self-assessment by the Department of Primary Industries Water (DPE Water) is not only inappropriate but also jeopardizes the integrity of the review process, casting doubt on the public's trust in the ultimate outcomes.

Having actively participated in meetings preceding the initiation of the metering rollout, I distinctly recall water users expressing concerns to both the Department of Primary Industries Water (DPE Water) and the Natural Resources Access Regulator (NRAR). These concerns revolved around the anticipated challenges of implementation, including high costs, intricate regulations, difficulties in securing qualified installers, and the demanding operational conditions for telemetry.

Despite these fears from water users, the decision was made to proceed with a rollout that was doomed to fail. Notwithstanding the fact that over 150 additional staff were tasked to implement the metering rollout, the initial 5-year rollout is now projected to extend by at least 10 years. It is evident that there has been a significant failure in management. This further underscores the imperative for an independent review to comprehensively assess and address the shortcomings in the implementation process.

The current rules are intricate and seem unjust. Currently, the complexity arises from factors such as the use of pump sizes to determine metering requirements. It appears unfair that an individual with a pump under 100mm operating faces less stringent metering requirements than an infrequent water user with a pump sized 100mm or larger. Even NRAR staff encounters challenges in sizing pumps. I propose that a volumetric system would be far less convoluted if everyone with usage exceeding 10ML/year were treated uniformly.

On the coastal front, the requirement for larger users alone to install telemetry metering is perceived as unjust, costly, and impractical. Unjust, as most significant users have consistently adhered to proper ordering and accounting practices, while many small users fail to do so, particularly during dry periods when river systems are most strained. Some small users may go years between initiating irrigation. It's also disheartening that NRAR has publicly stated that smaller users are a low priority in terms of water accounting.

The requirement is costly for coastal farms with multiple pumps but moderate usage, leading to a financial burden disproportionate to their water usage. In my case, installing metering for four pumps is estimated to cost over $50,000, with ongoing maintenance costs due to the high flood risk in the area. Despite some relief in metering costs, this is likely to be negated by increased WAMC fees in the next IPART determination.

The requirement is unworkable, as seen in inland regions where uptake is lagging. There will likely be substantial reluctance among water users due to costs, flood risks, and a shortage of qualified installers. The suggested DQP's in the discussion paper seem implausible given the scarcity of those trades, let alone expecting them to handle meter installs.

From a water management standpoint, unless all users are uniformly monitored, it is likely to be unworkable, as smaller users may not keep logbooks, and enforcement may be doubtful. Many small water users are opportunistic irrigators. I advocate for all water users to have basic meters, and the government should either provide a significant subsidy for telemetry or install government-owned meters. Governments have already invested significantly in making farms drought-resilient, and I believe meter installation could be part of this funding.

In conclusion, I appreciate your consideration of my submission and the opportunity to voice my concerns for the public record.

Sincerely,

David Williams

[redacted]

[redacted]

Phone: [redacted]

Email: [redacted]

[redacted]

From: [redacted]
Sent: Tuesday, 28 November 2023 1:31 PM
To: [redacted]
Subject: FW: Submission to NSW Government into the Review of Non-urban Metering Framework

From: Lou Gall <[redacted]
Sent: Saturday, 25 November 2023 3:41 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: Submission to NSW Government into the Review of Non-urban Metering Framework

To whom it may concern,
Please find included a copy of the **Gwydir Valley Irrigators Association (GVIA) submission into the NSW Government Review into the Non-urban Metering Framework**. Thank you for the opportunity to contribute to this important review.
The GVIA believe that it is important the Government maintain a practical approach to the NSW metering policy to ensure it is possible for users to become compliant and for reliable monitoring of water to take place.
The majority of our members have been measuring their water take for in excess of 20 years and support the measurement and recording of use. They have found the implementation of the Floodplain Harvesting Measurement Policy 2020 extremely difficult. The policy is impractical, includes numerous incorrect assumptions and is plagued by government system design flaws. These design errors coupled with clear implementation barriers out of the control of water users, means that measurement compliance cannot be achieved in the desired timeframes. A practical solution to enable the measurement and reporting of any floodplain harvesting water accessed must be put in place urgently. This must recognise that there are barriers to compliance and that the government processes and assumptions, contribute to these barriers.
We request the immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.

The following 11 recommendations are found within our submission.

1. **The immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.**
2. **The extension of the compliance timeframes, for floodplain harvesting take, by a minimum of 18 months from the dates specified in the Floodplain Harvest licences and approvals for individual valleys, or until such time that the issues associated with the impracticalities, incorrect assumptions and government system design flaws are addressed, and the availability of storage meters, DQPs and surveyors are improved.**
3. **We recommend an urgent review of the floodplain harvesting policy to enable irrigation during a floodplain harvesting event when a storage meter is being used to measure take.**
4. **Amend the regulation to ensure that overland flow in unregulated systems can be metered with either non-urban metering equipment, by a point of take installation or a storage meter as detailed in the Floodplain Harvesting measurement policy 2022.**
5. **Exempt water users taking overland flow under an unregulated access licence from metering requirements until alternative provisions are in place.**

6. **Support the amendment of the installation and DQP rules to enable others such as engineers, surveyors, plumbers or electricians to complete meter installations and validations.**
7. **Support bringing the installation pathways in line with the national framework and requirements through the amendment of rules to enable anyone to install pattern-approved, closed conduit meters, provided they are validated by a DQP within six months.**
8. **Support the review and update of the maintenance and revalidation requirements to ensure they are practical, while maintaining the integrity of the installations. Include revisiting the requirement for in-situ accuracy testing.**
9. **Support the urgent investigation of dual output primary floodplain harvest storage meter options that link information to the DAS and to the on-farm data management system.**
10. **We support a review of data logging and telemetry specifications to ensure devices are reliable and suitable for the environmental conditions, the metering equipment configurations and signal interfaces.**
11. **The DAS is upgraded or replaced so it is able to reliably deliver to the needs of users, DQPs, surveyors and the department agencies.**

Please do not hesitate to contact our organisation if you have any questions from our submission. Thank you.

Kind regards

Lou Gall
Acting EO, Project Officer
CottonInfo Irrigation Technical Lead
[redacted]

GVIA
Gwydir Valley Irrigators Association Inc.
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ABN: 49 075 380 648
making every drop count

GVIA

Gwydir Valley Irrigators Association Inc.

Submission to: NSW Government

Review into the *Non-Urban Metering Framework*

By:

Gwydir Valley Irrigators Association Inc

November 2023

making every drop count

Table of Contents

1 Summary and Purpose

This document has been developed by the Gwydir Valley Irrigators Association (GVIA) on behalf of its members as a formal submission for consideration by the NSW Government Department of Planning and Environment into their review of the *Non-urban Metering framework*.

While this review of the non-urban metering framework is not intended to address matters specific to floodplain harvesting measurement, the rollout of floodplain harvesting measurement is facing significant barriers to implementation. No review of non-urban metering in NSW would be complete without the inclusion of floodplain harvesting measurement.

This document aims to represent the concerns, views, and experiences of our members. Each member reserves the right to express their own opinion and is entitled to make their own submission.

As part of this submission, we have as a result provided the following 11 recommendations.

We welcome further discussion with the DPE on any of the matters raised within this submission.

2 Introduction

The Gwydir Valley Irrigators Association (GVIA) is the representative body for irrigation entitlement holders in the Gwydir Valley including High Security, General Security, Supplementary, Groundwater and Floodplain Harvesting entitlements.

The licencing of floodplain harvesting has brought a long-term legitimate form of take into a managed metered volumetric form of take and ensured that the Gwydir remains within CAP. Licencing with a clear measurement and compliance, will allow greater transparency and accountability for all, ensuring balance and fairness across the basin. The licencing has however seen a 31% reduction in access, this will stall drought recovery in a region with low water reliability. The impact on community will be significant.

It is important to recognise the ephemeral nature of and limited connectivity, or closed nature of the Gwydir, where water flows naturally to the Gwydir Wetlands. The infrequency of large floods that provide floodplain connectivity and natural attenuation of flows must also be recognised, if flood water makes the river from the floodplain, the downstream outcomes are insignificant.

2.1 Recommendations

The following 11 recommendations are found within our submission.

1. **The immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.**
2. **The extension of the compliance timeframes, for floodplain harvesting take, by a minimum of 18 months from the dates specified in the Floodplain Harvest licences and approvals for individual valleys, or until such time that the issues associated with the impracticalities, incorrect assumptions and government system design flaws are addressed, and the availability of storage meters, DQPs and surveyors are improved.**
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6. **Support the amendment of the installation and DQP rules to enable others such as engineers, surveyors, plumbers or electricians to complete meter installations and validations.**
7. **Support bringing the installation pathways in line with the national framework and requirements through the amendment of rules to enable anyone to install pattern-approved, closed conduit meters, provided they are validated by a DQP within six months.**
8. **Support the review and update of the maintenance and revalidation requirements to ensure they are practical, while maintaining the integrity of the installations. Include revisiting the requirement for in-situ accuracy testing.**
9. **Support the urgent investigation of dual output primary floodplain harvest storage meter options that link information to the DAS and to the on-farm data management system.**
10. **We support a review of data logging and telemetry specifications to ensure devices are reliable and suitable for the environmental conditions, the metering equipment configurations and signal interfaces.**
11. **The DAS is upgraded or replaced so it is able to reliably deliver to the needs of users, DQPs, surveyors and the department agencies.**

2.2 Our region

The Gwydir Valley Irrigators Association (GVIA) represents more than 450 water entitlement holders in the Gwydir Valley, centred around the town of Moree in North-West New South Wales. Our mission is to build a secure future for members, the environment and the Gwydir Valley community through irrigated agriculture.

The Moree Plains Shire region alone is highly dependent on agriculture and irrigated agriculture for economic activity contributing over 72% of the value of gross domestic product (cotton is around 60%), employing 20-30% of the population and accounting for almost 90% of exports from the Shire[1].

The 2011 agricultural census estimates that the total value of agricultural commodities for the Moree Plains Shire region was $911,951,079 up from $527,744,851 in the 2005-06 census. This is an estimated 7.83% of NSW's total agricultural production from a 1,040,021Ha principally used for agricultural crops[2].

The Gwydir is characterised as having low water reliability with most water held as general security water with a reliability of 36% (that means irrigators could expect in the long-term just over a third of their entitlement can be accessed). Supplementary water entitlement is somewhat more reliable with 55% but accounts for less than a quarter of the total volume. Groundwater reliability is considered 100% but there is less than 30,000ML available. Floodplain Harvesting entitlements account for approximately 30% of water for the Gwydir but are irregular providing access two in ten years.

The total volume of water available to be accessed by irrigators has been reduced significantly over time due to reforms as outlined in Table 1: Summary of Water Reform.

Table 1: Summary of Water Reform

Year	Program	Volume of entitlement
1970	Creation of replenishment flow	5,000ML
1995	Murray-Darling Basin 1993/94 Interim Cap established to limit future growth in access	
1996	Voluntarily reduction of general security reliability by 5%, by establishing the original Gwydir Valley Environmental Contingency Allowance (ECA) of general security equivalent water.	25,000ML General Security
2004	Gwydir Regulated River Water Sharing Plan further reduced reliability by 4%, primarily through increasing and enhancing ECA use and storage provision. Rules created for the WSP also reduced access, particularly to supplementary flow previously known as high flow.	20,000ML General Security

[1] Cotton Catchment Communities CRC Communities and People Series 2009

[2] 2010 2011 Agricultural Census Report – agdata cubes, 71210D0005-201011 Agricultural Commodities, Australia

Year	Program	Volume of entitlement
2006	Lower Gwydir Groundwater Source Water Sharing Plan reduced groundwater entitlements from 68,000 megalitres to 28,700 megalitres.	39,300ML Groundwater
2008 +	NSW State Government has purchased general security entitlement as well as supplementary for wetlands recovery programme.	17,092ML General Security 3,141ML Supplementary
	NSW Government infrastructure works	1,249ML High Security
	Commonwealth buy-back program.	88,133ML General Security 20,451ML Supplementary
2016	Commonwealth infrastructure programs.	4,508ML High Security 1,392ML General Security
2022	Implementation of Floodplain Harvesting licences	43,100ML FPH
TOTALS		5,757 High Security 156,617ML General Security (including ECA) 23,592 ML Supplementary 43,100ML Floodplain Harvesting

The Gwydir has met the legislative requirements of the Murray Darling Plan of 42,000ML of long-term diversion limit equivalence (LTDLE) entitlement for local instream environmental outcomes and a further 7,600ML for shared contribution to the northern basin. The NSW and Australian Government's hold 54,600ML LTDLE. This means the Gwydir Valley has 5,000ML of LTDLE entitlements in excess of that required by law.

Entitlements owned for environmental purposes totals more than 186,000ML, which includes an Environmental Contingency Allowance (ECA) of 45,000ML. The NSW and Commonwealth environmental water managers are now responsible for 28.5% of high security entitlement, 29% of general security entitlement and 13% of supplementary entitlement for environmental use.

As a result, only approximately 19% of the total river flows are available for diversion for productive use. This equates to irrigators holding 575,000ML from regulated entitlement (high security, general security, and supplementary water) and 28,000ML available from groundwater aquifers. Floodplain harvesting is an historical source of water making up 30% of the valleys total water usage.

The main broad acre irrigated crop is cotton with irrigated wheat, barley and Lucerne also occurring depending on commodity prices. The total developed broad acre irrigated area is approximately 90,000 ha, production records since 2007 indicate that maximum planting area following recovery has been reduced to 72,000ha. In 2010-11 census data indicated the total production value of irrigated cotton was $623M and is estimated to be worth three times that to the local community using the Cotton Catchment Communities Research Corporation economic multiplier for cotton regions[3].

[3] Social and Economic Analysis of the Moree Community, 2009. Cotton Catchment Communities CRC.

Currently the region is also home to the largest pecan plantation in Australia and the largest Valencia (juice) orange orchard in Australia covering approximately 2,000 hectares and generating an estimated $31M with considerable benefits to the local community as a high intensity, permanent crop. Both these crops are actively pursuing improvements in water use efficiency. There is significant potential for expansion into horticulture and improvement in water utilisation but the area of expansion it limited by the availability of high security water.

Changes in water availability either through climate or government policy has a direct impact on the productivity of the region as well as on the local economy. Analysis by the Murray Darling Basin Authority highlighted this relationship during the northern review and revealed that for both Moree and Collarenebri social and economic indicators declined through 2001 to 2011 including education, economic resources and disadvantage, resulting in an estimated 200 jobs lost due to the implementation of the Basin Plan in the region.

2.3 What we do

The GVIA's mission is to build a secure future for our members, the environment and the broader Gwydir Valley community through irrigated agriculture, we can do this together by making every drop count in the river or the aquifer, on-farm, for the environment, or for our community[4].

GVIA members' entitlements are within the Gwydir regulated and un-regulated surface water areas, in addition to groundwater resources. All of which are managed through water sharing plans, which have been progressively developed since early 2000.

The GVIA organisation is voluntary, funded by a nominal levy, cents/megalitre on regulated, unregulated and groundwater irrigation entitlement. The levy is consistently paid and supported by more than 84% of the eligible entitlement (excludes entitlement held by the NSW and Commonwealth governments).

Much of the activity of the association revolves around negotiating with government at a Federal, State and Local level to ensure the rights of irrigators are maintained and respected. While the core activities of the Association are funded entirely through the voluntary levy, the Association also undertakes programs to maintain and improve the sustainability of members on-farm activities and from time to time, manages special projects, which can be funded by government or research corporations.

The Association is managed by a committee of a minimum 11 irrigators and employs a full-time executive officer and a part-time administrative assistant, as well as hosting a Project Officer funded through the Cotton Research and Development Corporation, the Gwydir Valley Cotton Growers Association and the GVIA.

The GVIA and its members, are members of both the National Irrigators Council and the NSW Irrigators Council.

[4] For more information, see our corporate video on https://vimeo.com/177148006

2.4 Contacts

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Chairman:	Ian James Cush
Acting Executive Officer:	Louise Gall

3 Critical problems with non-urban metering in NSW

While this review of the non-urban metering framework is not intended to address matters specific to floodplain harvesting measurement, the rollout of floodplain harvesting measurement is facing significant barriers to implementation. No review of non-urban metering in NSW would be complete without the inclusion of floodplain harvesting measurement. As such we have included it as a significant part of this submission.

3.1 Compliance timeframes

The general feed back to the department noted that the compliance deadlines are unrealistic and unachievable. The GVIA members would absolutely agree with this, especially with regard the Measurement of Floodplain Harvesting entitlement.

The NSW Floodplain Harvesting Measurement policy 2020 which became enforceable with the issuing of these new and unique licences in the Gwydir Valley in August 2022 has created fresh uncertainties and challenges for stakeholders, particularly given the impracticalities, incorrect assumptions and government system design flaws in the floodplain harvesting measurement requirements. These design errors coupled with clear implementation barriers out of the control of water users, means that measurement compliance cannot be achieved in the desired timeframes.

Water users have been actively working with surveyors, DQP's and department representative in an attempt to be compliant. Despite this concerted effort many have struggled to meet expectations. Water users are expected to be compliant in the Gwydir Valley (as of 15th August 2023) yet the Data Acquisition System (DAS) is still not functioning correctly, meters are not readily available and DQPs or surveyors are still struggling to address the policy requirements to enable users to be compliant. Many members have had primary storage devices on order for three to twelve months and have had similar wait times to get surveyors to complete storage curves and Duly Qualified Persons (DQP) to install either primary or secondary devices. Many DQP's will not install storage meters for floodplain harvesting due to the issues with the implementation of the policy.

The Gwydir Valley Irrigators Association (GVIA) has been proactively working with, the NSW DPE and WaterNSW to find practical solutions to the floodplain harvesting measurement

framework. This engagement has been ongoing since May 2023 but has not resolved the central concerns about the inability for the system to enable, efficient compliance progress for licence holders or track progress and demonstrate effort.

Despite our combined best efforts, there has been no practical progress that would enable a licence holder to take floodplain harvesting water. Entitlement holders, through no fault of their own, find themselves in the impossible position of not being able to meet government's aspirational measurement of this new form of take.

Not to have a practical transitional period with a reliable notification and nomination mechanism as well as a manual backup system, consistent with other forms of take is a failure of government. It highlights the complete lack of understanding of the reality associated with the implementation of this measurement policy.

Our desire is to have floodplain harvesting take measured and reported. A practical solution to enable the measurement and reporting of any floodplain harvesting water accessed must be put in place urgently. This must recognise that there are significant barriers to compliance and that the government processes and assumptions, are the primary reason for these barriers.

We request the immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.

Recommendations:

1. **The immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.**
2. **The extension of the compliance timeframes, for floodplain harvesting take, by a minimum of 18 months from the dates specified in the Floodplain Harvest licences and approvals for individual valleys, or until such time that the issues associated with the impracticalities, incorrect assumptions and government system design flaws are addressed, and the availability of storage meters, DQPs and surveyors are improved.**

3.2 Floodplain harvesting measurement.

The NSW Floodplain Harvesting Policy 2018 and associated Floodplain Harvesting Measurement Policy 2020 are currently being implemented in NSW. The GVIA support the implementation of a practical policy which enables the measuring and reporting of floodplain harvesting take, as such it is essential that measuring and monitoring implementation challenges associated with Floodplain Harvesting are addressed in this review.

Policy development for measuring overland flow and floodplain harvesting in unregulated and regulated river systems is complicated by the impracticalities, incorrect assumptions and government system design flaws in the floodplain harvesting measurement requirements. These design errors coupled with clear implementation barriers out of the control of water users, means that entitlement holders are facing significant barriers to meet compliance requirements.

The GVIA appreciate the open active interaction with WaterNSW and DPE to progress solutions to these problems. We however have not been able to resolve the central concerns about the inability for the system to enable, efficient compliance progress for licence holders or track progress and demonstrate effort.

The primary challenges associated with floodplain harvesting measurement include:

- The time frames for full compliance with primary storage meters are too short. Entitlement holders should be permitted to take Floodplain harvested or overland flow water with approved, secondary meters until such time that the following barriers are addressed:
  - The shortage of DQP's prepared to install storage meters is addressed.
  - The availability of primary storage meters is improved.
  - The configuration and linkages of storage curves to storage meters and the DAS is streamlined so users can readily access data to enable them to be compliant.
  - The policy changes needed to enable irrigation during a Floodplain Harvesting event are fixed by:
    - enabling users to identify a specific Local Intelligent Device (LID) in a storage within a works approval to take Floodplain harvesting water while still irrigating from other storages within a works approval without the requirement to subdivide the works approval, or
    - the measurement of water taken from the storage to irrigate during a floodplain harvesting event.
  - The newly approved improvements to survey requirements are able to be utilised by surveyors.

Coupled with the problems associated with primary storage meters, the Government installed secondary devices have proven to not be fit for purpose. For example, gauge board markings wash off easily, or are unreadable preventing measurements from being taken.

Given the failures of the Floodplain Harvesting Measurement Policy 2020 we reiterate our first two recommendations and add a third recommendation.

1. **The immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.**
2. **The extension of the compliance timeframes, for floodplain harvesting take, by a minimum of 18 months from the dates specified in the Floodplain Harvest licences and approvals for individual valleys, or until such time that the issues associated with the impracticalities, incorrect assumptions and government system design flaws are addressed, and the availability of storage meters, DQPs and surveyors are improved.**
3. **We recommend an urgent review of the floodplain harvesting policy to enable irrigation during a floodplain harvesting event when a storage meter is being used to measure take.**

The review of non-urban metering framework issues and options paper notes that "*overland flow taken with an unregulated river licence must be metered in accordance with the non-*

urban metering framework. This means only closed conduit or open channel metering equipment is permitted to be used.

If overland flow is taken with a floodplain harvesting licence, it must be measured through either point-of-intake metering equipment (closed conduit metering under the metering framework) or storage measurement equipment, under the floodplain harvesting measurement framework."

This is another example of the impracticalities, incorrect assumptions and government system design flaws in the floodplain harvesting measurement requirements. The government acknowledges that "*In many cases, it would be more practical and cost effective if users taking overland flow with an unregulated river licence could measure their take using storage measurement devices, as is allowed under the floodplain harvesting measurement framework.*" The GVIA agree and makes the following recommendations.

Recommendations:

4. **Amend the regulation to ensure that overland flow in unregulated systems can be metered with either non-urban metering equipment, by a point of take installation or a storage meter as detailed in the Floodplain Harvesting measurement policy.**
5. **Exempt water users taking overland flow under an unregulated access licence from metering requirements until alternative provisions are in place.**

4 Implementation challenges identified by the department.

The following section discusses some of the primary implementation challenges identified in the review of non-urban metering framework issues and options paper.

4.1 Not enough active duly qualified persons to meet demand.

"*Water users are experiencing significant challenges in contracting a duly qualified person (DQP) to install and validate meters and local intelligence devices (LIDs) by the relevant compliance deadline."*

The limited number of active DQP is an issue contributing to the barriers to compliance. The fact that less than 40% of qualified DQPs are actively installing non-urban meters is concerning. We suspect that the number of DQPs actively installing storage meters for floodplain harvesting is even lower. If less than 40% of individuals attaining qualification to do a job are actually doing that job, it suggests a significant level to market failure.

Feedback from active DQPs confirm the fact that installing meters has a high administrative burden, and that the DQP Portal has exacerbated this administrative burden and impacted the efficiency with which DQPs could complete installations, certifications, and validations. The recent improvements to the DQP Portal by WaterNSW are welcome but may be too little too late as it is still not functioning. It is important that sufficient resources are allocated to WaterNSW to upgrade or replace the DAS beyond the "minimal viable product" currently in existence to a system that is fit for purpose and as such more able to meet the needs of DQP's, surveyors, entitlement holders and government.

In addition, the DQPs are under increasing pressure from both entitlement holders chasing meter installation and validation, as well as from government agencies who have placed

significant regulatory risk onto them. Both DQPs and users receive limited support for costs incurred when meters or data loggers fail and need fixing and/or replacement.

The DQP training course is delivered by Irrigation Australia Limited (IAL). Irrigators see IAL as an organisation who is more closely connected to manufacturers than to irrigators and question whether they are the appropriate body to be providing the DQP training packages such as the 'Storage meter installer and validator course'. There is also feedback indicating that the IAL website is of a poor quality and difficult to navigate.

Comments on possible government proposals.

4.1.1 Options to increase DQP workforce by expanding definitions.

The idea of amending the rules to enable others such as engineers, surveyors, plumbers or electricians to complete meter installations and validations as a principle has merit. However, it demonstrates the ongoing lack of understanding of the labour and skills resource constraints across NSW. There aren't sufficient surveyors to support the existing NSW government floodplain harvesting survey requirements, there is a two to three month wait for a plumber or electrician in most regional towns and there is a limited supply of engineers.

The GVIA support the amendment of the rules to enable others such as engineers, surveyors, plumbers or electricians to complete meter installations and validations but feel it will have minimal or no impact on the active DQP workforce because these people are already under resourced in their existing businesses.

Recommendation.

6. **Support the amendment of the rules to enable others such as engineers, surveyors, plumbers or electricians to complete meter installations and validations.**

4.1.2 Enabling less prescriptive installation pathways

The potential to amend the rules to enable anyone to install pattern-approved, closed conduit meters, provided they are validated by a DQP within six months would be welcomed. The GVIA would support bringing the NSW measurement framework more in line with the national framework and the requirements in other jurisdictions, such as Queensland.

Recommendation:

7. **Support bringing the installation pathways in line with the national framework and requirements through the amendment of rules to enable anyone to install pattern-approved, closed conduit meters, provided they are validated by a DQP within six months.**

4.1.3 Review maintenance and five-yearly revalidation requirements

The department has proposed a review and update of the maintenance and revalidation requirements to ensure they are practical, while maintaining the integrity of the installations. This would include revisiting the requirement for in-situ accuracy testing which is not mandated under the national metering standards.

Recommendation:

8. **Support the review and update the maintenance and revalidation requirements to ensure they are practical, while maintaining the integrity of the installations. Include revisiting the requirement for in-situ accuracy testing.**

4.2 Metering equipment

Water entitlement holders have seen delays in supply of meters to comply with floodplain harvesting measurement and other forms of non-urban metering. Wait times vary from three to 12 months. The supply delays have caused issues for compliance timeframes.

The GVIA once again reiterate our first two recommendations.

1. **The immediate roll-out of a manual alternative to record and report floodplain harvesting take and the allowance of the use of secondary metering equipment in the absence of fully functioning or installed primary metering equipment.**
2. **The extension of the compliance timeframes, for floodplain harvesting take, by a minimum of 18 months from the dates specified in the Floodplain Harvest licences and approvals for individual valleys, or until such time that the issues associated with the impracticalities, incorrect assumptions and government system design flaws are addressed, and the availability of storage meters, DQPs and surveyors are improved.**

Users have also found that replacing existing meters with AS4747 meters has reduced the accuracy and reliability of measurement in some circumstances. For example, where a fully functional MACE meter on a bore was replaced with an AS4747 approved meter it resulted in false readings. The false reading was a result of interference from air bubbles. The solution was an additional $10,000 installation at each site where these new meters were causing the false reading. Another example was where wind was able to activate a river meter when it was not in use, over a six month timeframe this meter recorded significant volumes of flow despite the fact that it was not used at all.

Both these examples demonstrate that the AS4747 meters available for users are not necessarily fit for purpose nor suited for Australian conditions. There needs to be a more practical assessment of the suitability of approved meters.

4.3 Telemetry

4.3.1 Need for dual output primary storage meters for floodplain harvesting.

The floodplain harvesting measurement framework requires users to install primary meters, which record data on small increments of 15 minutes, but only upload information on a 24 hourly bases. It is also not possible for users to see on the device the information they need to manage events. This demonstrates that the policy was developed with a total lack of understanding of the practicalities of measuring floodplain harvesting and a complete lack of appreciation of the needs of users. DPE and WaterNSW are looking to address this failure of the policy through an investigation of dual output options.

Recommendation.

9. **Support the urgent investigation of dual output primary floodplain harvest storage meter options that link information to the DAS and to the on-farm data management system.**

4.3.2 Review of the Data Logging and Telemetry Specifications 2021

The issues paper indicates that a specific and comprehensive review of the Data Logging and Telemetry Specifications 2021 is warranted. We support this review as there are examples where the systems have compromised the quality and reliability of data transmitted.

Recommendation

10. **We support a review of data logging and telemetry specifications to ensure devices are reliable and suitable for the environmental conditions, the metering equipment configurations and signal interfaces.**

4.4 Issues with data systems

Comments from the field repeatedly indicate that the Data Acquisition System (DAS) is failing on many fronts. The issues paper noted water users have found the system is difficult to navigate and data not easily accessible. In addition, as indicated in 4.1, the DQP portal has been a major impediment to them being able to deliver to expectations efficiently and effectively.

It will not be possible to improve metering compliance across the state until the DAS is either upgraded or replaced so that it is able to functions effectively and deliver to the needs of DQP's, surveyors, entitlement holders and the department agencies.

Recommendation

11. **The DAS is upgraded or replaced so it is able to reliably deliver to the needs of users, DQPs, surveyors and the department agencies.**

5 Conclusion

The Gwydir Valley Irrigators Association thanks the Department of Planning and Environment for the opportunity to comment on the review of the non-urban metering framework. Our submission covers the significant issues being faced by users trying to implement both the non-urban metering framework and the flawed Floodplain Harvesting Measurement Policy 2020. The Floodplain Harvesting Measurement Policy is full of impracticalities, incorrect assumptions and government system design failings. Entitlement holders have invested money and time, but through no fault of their own, find themselves in the impossible position of not being able to meet government's aspirational measurement of this new form of take. These design errors coupled with clear implementation barriers out of the control of water users, means that measurement compliance cannot be achieved in the desired timeframes.

We request the immediate roll-out of a manual alternative to record and report floodplain harvesting take consistent with other forms of take, and the allowance of the use of

secondary metering equipment in the absence of fully functioning or installed primary metering equipment.

This submission provides background information to our region and our organisation and addresses the key barriers to implementation and metering compliance and possible responses posed by the Department.

This submission resulted in 11 recommendations, which we believe provide for improved implementation of metering requirements across NSW.

Submission Ends.

HUNTER VALLEY
WINE AND TOURISM ASSOCIATION

Department of Planning and Environment - Water Group
NSW Government

By email: water.enquiries@dpie.nsw.gov.au

25 November 2023

Review of the NSW Non-Urban Metering Policy - November 2023

I am making this submission on behalf of members of the Hunter Valley Wine and Tourism Association, representing the majority of vineyards, wineries and tourism businesses in the Pokolbin, Lovedale, Mt View, Broke - Fordwich and Bulga precincts and sub regions in the Lower Hunter Valley.

Our members primarily utilise water from the Hunter PID, from collecting run off rainwater in dams, and in very limited instances (golf courses) from processed wastewater.

We endorse the letter from the HVWUA attached to this email.

Any changes or new government requirements need to be well communicated, should address both environmental and business needs around sustainability, and be cost effective given the financial pressures all our businesses are under. Experts required by your proposed legislation should be funded by the government so they are available on a timely and cost effective basis to very small agricultural properties through the larger players in our region.

A clear document stating what is required from property owners in terms of metering and records, along with cost-effective access to these, is seen as essential. While sustainable viticulture, wines making and business initiatives currently underway in the industry focus on measurement, it would be good to check if these fully align with what you need.

We are happy to host (in association with HVWUA) either local presentations, Q&A or Zoom meetings with our members so they can better understand what you propose/require, the source of any new metering and reporting required (and suppliers/costs/timeframes) so we can assist you to better tailor this policy to our members needs/capacities, and so our members can fully understand what is being proposed.

Yours Sincerely,

Ian Napier
Advocacy Stream Chair and Board Member
Hunter Valley Wine & Tourism Association
M [redacted] | **E** [redacted] | **W** winecountry.com.au

Cc. Jeannie Curran CEO HVWTA, Chris Tyrrell President HVWTA

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24 November 2023

Review of the NSW Non-Urban Metering Policy – November 2023

As a member of the NSW Irrigators' Council (NSWIC), this letter confirms that Hunter Valley Water Users Association supports the NSWIC submission *Addressing Metering Compliance Barriers* for the NSW Government's R*eview of the NSW Non-Urban Water Metering Policy*.

The NSWIC submission identifies a wide-reaching range of barriers that delay or completely prevent water users from complying with the NSW Non-Urban Water Metering Policy. These barriers are beyond the control of water users across the state who seek to comply with metering rules, they prevent effective policy implementation, and consequently there is a high likelihood of policy failure if they remain unaddressed.

The NSW irrigation industry supports continual improvements to metering, monitoring and measurement of water use; supports sustainable limits on use; and has zero tolerance for non-compliance with water laws. The Metering Policy, now approaching its fifth year of implementation, has seen many water users across NSW invest significant time, finance, and labour resources in efforts to achieve compliance where possible. This investment means there is generally a reluctance to 'water down' the policy in most (but not all) instances, rather, there needs to be a means to achieve full compliance.

The current state of affairs is a very unfortunate, and disappointing, outcome for our industry. In our view, current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity. Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

We appreciate the recent effort of the NSW Government and DPE-Water to identify problems and possible solutions to metering compliance barriers. The acceptance and public acknowledgement of these barriers provides transparency on reasons for non-compliance, noting that many are beyond the control of water users. However, the next step forward, with urgency, is the adoption of practical and enduring resolution of these barriers. The NSWIC submission provides a suite of helpful recommendations towards this goal, demonstrating the desire of the industry to work collaboratively to reach full metering compliance.

As a high-level overview, NSWIC recommends:

1. Provide an automatic temporary exemption for known barriers;
2. Establish a pathway to correctly nominate inactive works;
3. Remove inconsistent metering conditions on licences;
4. Revisit metering requirements that target risk;
5. Revisit meter installation and certification requirements;
6. Revisit management of telemetry systems;
7. Revisit overland flow measurement pathways;
8. Improve practical reporting process for general water usage reporting;
9. Improve practical reporting processes for faulty meters;
10. Review cost-sharing arrangements; and
11. Develop a clear communication strategy, particularly for coastal NSW.

On the next page we have provided a summary of high priority issues for the Hunter Valley Water Users Association membership.

We appreciate the consultation opportunities provided to us through this review. We look forward to further occasions to provide feedback on addressing metering compliance barriers.

Yours sincerely,

Ken Bray

HVWUA Chair
M: [redacted]
E: [redacted]

Andrea Molteno

HVWUA Policy Officer
M: [redacted]
E: [redacted]

About the Hunter Valley Water Users Association

Hunter Valley Water Users Association represents 500+ water user members from the Greater Hunter region. We represent the interests of our members on water policy issues, including participating in industry forums and meetings, preparing submissions to government enquiries, and meeting with department (DPE), state, and federal politicians.

HVWUA is a member of the New South Wales Irrigators' Council, and works closely with NSWIC to develop locally relevant, state, and national policies.

Agricultural industries in the Greater Hunter region employ 3,506 people. The region has 1,035 farms, including beef cattle farming, horse farming, dairies, grape growing, other cropping, poultry farming, and sheep farming. The agricultural industry has a total value of $396 million, including commodities such as calves and cattle, poultry, milk, eggs, hay, sheep and lambs, turf, wool, wheat and wine grapes.[1]

Specific issues of concern to the Hunter Valley Water Users Association

1. Cost-prohibitive administrative fees for marking a work inactive

The HVWUA membership are concerned by the administrative and labour costs associated with marking a work as inactive. Currently it costs $603.50 to mark a work as inactive through WaterNSW. Water users also need to provide evidence that the work is physically incapable of taking water. This incurs additional labour costs and increases the difficulty (and cost) to reverse this action to make the work active again.

Consequently, many smaller water users find themselves caught between paying high costs for compliant metering equipment, or the high cost of making their work inactive. This cost is further exacerbated if the water users have multiple pumps, which is often the case. Additionally, many water users pump water irregularly and may desire to turn their pump/s off during wet seasons.

Establishing a cost-free, easily reversible, administrative only pathway to correctly nominate inactive works is necessary to ensure water users in the Greater Hunter can keep their works status up-to-date. It also ensures correct compliance reporting by NRAR, an important factor when maintaining the reputation of agriculture in the Hunter region.

2. Inconsistent metering conditions forcing early metering compliance

Some HVWUA members have noted a condition on their water access licence that requires them to have non-urban metering compliant equipment installed now, rather than by the coastal NSW compliance date of 1 December 2024. Captured in this group are smaller water users and stock and domestic licence holders who would otherwise be exempt from non-urban metering requirements.

HVWUA calls on the NSW Government to remove pre-existing specific metering conditions on licences, and instead refer to one instrument – the non-urban water Metering Policy. Furthermore, all inconsistencies should be resolved between licence conditions, Water Sharing Plan and the Non-Urban Water Metering Policy, particularly noting that under the current policy settings,

a) water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded; and
b) compliance date for coastal NSW is 1 December 2024.

[1] https://public.tableau.com/views/AMR_v9_A3L/Dashboard1?:showVizHome=no

3. Lower cost and less prescriptive metering requirements

HVWUA is of the opinion that the current metering policy does not meet its objective to minimise undue costs on smaller water users. Currently, a large number of Greater Hunter water users use electric meters to measure water taken from regulated and unregulated water sources. This has been a reliable, fit for purpose and inexpensive method of tracking water use, and still requires water users to meet the recording and reporting rules for "all non-metered works":

- **Recording**: Record water usage each month, even if water take is zero (via p3 annual recording form).
    - **If taking water for BLR** - record intention to take BLR (via online form), and record monthly BLR (via p4 annual recording form).
    - **If cease-to-take conditions** - record that cease to take conditions do not apply (via p5 annual recording form).
- **Reporting**: Report licenced and BLR water usage within 28 days of the end of the year (via p1-2 annual recording form).
    - **If water solely taken for BLR** - there are no reporting requirements.[2]

Additionally, the growing use of smart meters presents the opportunity for these meters to act as a data logger and telemetry resource, with the capacity to report energy usage remotely too.

With the approach of the coastal non-urban metering compliance date of 1 December 2024, HVWUA conducted a survey of members on their experience with the non-urban metering requirements. Respondents (n=24[3]) said:

- 88% said they are having difficulty affording metering equipment and labour.
- 79% said they are having difficulty affording engineering works prior to installation.
- 46% said they are having difficulty affording activities to make a work inactive.

We support the continuation of the work size-framework in place since initial policy implementation, recognising the significant investment of NSW water users to comply with these rules. However, HVWUA calls on the government to modify the work size-based, particularly;

> a) the groundwater exemption measurement should be 100mm pump discharge diameter consistent with surface water pumps; and
> b) the groundwater wells to be eligible for the same exemption as groundwater bores – noting that it is the size of the pump within the well that affects water uptake.

Inland NSW are now required to be compliant against work size-based thresholds, however, coastal NSW (approx. 6,000 works) have another 12 months until compliance on 1 December 2024. We recognise that the work size-based framework does not account for the annual usage of water, nor does it specifically recognise low volume water users.

HVWUA suggests that preliminary studies could be conducted along NSW coastal regions to provide further details on the impact and implementation of;

> a) a volume-based stratified threshold model; and
> b) a low volume water user exemption (suggested by NSWIC).

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[2] https://www.waternsw.com.au/customer-services/metering/recording-and-reporting

[3] Note: Due to current over-consultation of the Greater Hunter community on a range of agricultural issues, engagement in surveys/consultation has been low. Despite their time and effort, the community has not seen favourable outcomes on some issues, hindering further participation.

In order to ensure suitable time frames for research and implementation, HVWUA suggests that the coastal compliance date be extended by a further 12 months minimum.

HVWUA also notes that inland NSW had the opportunity for water users to apply for government assistance in installing meters and telemetry. No such program has existed on the coast, yet the same rules apply statewide. We suggest a grant or subsidy program to assist water user along the NSW coast.

4. Limited Duly Qualified Persons (DPQ) availability

In the HVWUA survey, a number of members commented on the availability of DQPs:

- "Been waiting for a response from a DQP I spoke to over 2 months ago."
- "Duly Qualified Person are so hard to get to the farm [we are a fair way from town]."
- "Need more qualified people in our area to install, government help if we install by a due date."

Metering reform success rests on the supply of DQPs to meet water user demand. This is an emerging issue in the Greater Hunter, and it is expected that DQP supply shortages will become more pronounced as the coastal compliance deadline approaches. Moreover, worker shortages in regional areas and the lack of financial incentive to remain a DQP long-term add to this issue.

HVWUA supports the government assuming responsibility of DQP services, including matching supply with demand, resourcing and funding of public sector and private sector DQPs, expanding the definition of a DQP and providing appropriate training to these skilled workers, and the streamlining of administrative tasks. HVWUA does not support the use of fee-for-service models or increasing the cost under WAMC to address the shortage of DQPs.

5. Poor education on water ordering, metering, recording and reporting

Concerningly, a number of HVWUA members have reported a lack of communication from water agencies about the non-urban metering reform. In our survey of HVWUA members:

- 63% reported a lack of communication (in-person, print and online) from water agencies
- 67% reported a lack of educational session (in-person, and online) from water agencies
- 63% reported difficulty finding information about compliance on water agency websites
- Comments from members included:
    - "I get different answers from different people and agencies."
    - "I was not aware that meters had to be fitted."
    - "I have not received any official info at all. All I know is based on rumour or anecdotal info and conversations with neighbours on what they appear to know."
    - "Poor communication - I do not know where to look on web… they need to educate members on their responsibilities."
    - "This is a lack of information and simplicity of information available.", "There is a lack of information and consultation with landholders.", "There is a lack of communication and education."
    - "A solution is on-line education."
    - "A solution is information sessions in our area."
    - "A solution is clear guidelines on how to implement… More communication from Water NSW."

As demonstrated above, many water users report not receiving communications from water agencies. This calls into question how up to date and accurate the water agency (i.e., WaterNSW) customer database is. HVWUA suggests that ensuring this database is fit for purpose is essential to effective communication and education strategies.

While we do our best to assist water users in the Greater Hunter understand their metering requirements, our resources are limited and our committee is made up of busy farmers who are often self-employed and managing their farms. Limited resources and privacy restrictions increase the challenge of reaching all water users in the Greater Hunter. We have made efforts to address this, including:

a) Collaborating on advocacy efforts with water source water user groups and NSWFA; and
b) Inviting water agencies (WaterNSW, DPE-Water and NRAR) to present at our 2023 June AGM. These sessions contained helpful information, and provided an opportunity for water users discuss concerns.

We welcome opportunities to work with water agencies to reach Greater Hunter water users.

Additionally, HVWUA calls on water agencies to develop a clear, well thought through education and communication strategy for the Hunter Region. All water users should have access to resources (in-person, in-print, and online) that explain water ordering, metering requirements, and water recording and reporting via physical logbooks (WaterNSW customer forms) and/or online via the iWAS platform. This is so all water users (metered or not) know their compliance responsibilities.

6. Poor process to reporting faulty meters

The Greater Hunter is a coastal valley, with steeper terrain, faster flowing rivers and a wetter climate more prone to flash flooding. The recent flooding events in 2021-22 saw damage to regulated and unregulated rivers within the Greater Hunter, with some water users pump sites and meters significantly damaged or washed away.

In addition to high rainfall events, general wear and tear on non-urban metering compliant equipment has been reported such as debris in pumps and vibration damage. Due to the use of tamper-proof seals, some ‘easy to fix’ issues such as cleaning debris from within the meter are not permissible and therefore not possible, as only a DQP can break and re-verify these meters. This is costly and time-consuming process.

Due to the ongoing implementation barriers (e.g., access to DQPs, and fit for purpose meters), HVWUA strongly opposes amendments to Regulation to place parameters such as time limits for the repair or replacement of meters. We also suggest the extension of faulty meter reporting timelines.

7. Telemetry is not fit for purpose

Water users affected by telemetry requirements in the Greater Hunter report frustrations about the rigid requirements, particularly meeting cyber security requirements, despite the telemetry systems being fit for purpose elsewhere.

HVWUA supports the decoupling of data loggers and telemetry from meter installation requirements. Furthermore, we support the Government assuming responsibility for telemetry systems, including coordination and bulk procurement, installation, maintenance, and ownership of all data-loggers and telemetry systems (unless the water users opts-out and selects private ownership).

8. Rethinking cost-sharing arrangements

We support NSWICs recommendation that the NSW Government must pay for its own reform, which was driven by the Government's failure to deliver compliance services that water users had paid for in previous pricing determination periods. If the industry is made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

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Friday 24 November 2023

Submission
Review of non-urban metering framework

Introduction

The Inland Rivers Network ("IRN") is a coalition of environment groups and individuals that has been advocating for healthy rivers, wetlands and groundwater in the Murray-Darling Basin since 1991.

We welcome the opportunity to provide comment on the very delayed process of having all water extraction in NSW metered. This is critical for a better understanding and record of the level of water take across NSW and for improving the compliance mechanisms so that Water Sharing Plan limits are maintained.

It is significant that there are still unknown estimates of take across NSW for extraction through harvestable rights and capture of overland flows. The draft replacement Water Sharing Plans currently out for comment in unregulated water sources in inland NSW have a significant paucity of information to determine the Long-term average annual extraction limit. (LTAAEL).

The LTAAEL is the key indicator of the provision of planned environmental water in these water sources and yet there is still no volumetric basis for regulating compliance in these proposed Water Sharing Plans that will direct water management for the next 10 years. This is despite strong recommendations from the Natural Resources Commission reviews that a volumetric LTAAEL be in place in each unregulated Water Sharing Plan.

Metering all forms of water extraction is the key to managing water under the principles and objectives of the Water Management Act 2000 (WMA).

IRN notes that this Review process refers to the commitment of the NSW Government to adopt the recommendations of the 2017 Matthews Report for a policy of 'no meter, no pump'. We are particularly concerned that entire areas of unregulated water sources have licences extracted by works smaller than 100mm. The assessment of the level of water extraction in these important tributaries is essential.

IRN also notes that all urban water use is metered and monitored. It is essential that the NSW Government does not delay the process of non-urban water metering any longer. This outstanding requirement must be prioritised to improve community trust and have the necessary tools to manage compliance.

Key Issues

1. Transparency should be key focus

IRN does not support the suggested approach in the Issues and options paper that the policy be made easier for water users. The key consideration should be an approach that is most transparent and less likely to be compromised.

IRN supports that the response to Focus Question 1 is:

'water users must identify those works that *do not* take licensed water, or which only take water under a basic landholder right, and all other works would be assumed to take licensed water from a water source and be subject to the metering requirements.'

It would be useful to conduct a survey to have a better understanding of the number of licences that are rarely used, to ascertain any cost considerations. A better understanding of licence activity would help with the overall implementation of the water reform agreements under the National Water Initiative. Unused or rarely used licences could be purchased to take them out of the consumptive pool.

2. A way forward

The proposed model (Table 3) for state-wide volume-based metering and measurement obligations would be a useful interim starting point until the key supply and training constraints for metering are solved.

The volumetric approach, as an interim measure, should be consistent across the state and would provide a better knowledge base for estimating a volumetric LTAAEL in unregulated water sharing plans.

Any non-reporting under this model should result in a suspended licence.

3. Equipment

IRN considers that fully trained meter installers are essential to provide confidence in the process. The Government needs to prioritise training opportunities and target people in regional areas with an appropriate skills base to upgrade. Training should be a free service through TAFE.

The suggestion to separate meter installation from data loggers and telemetry may be useful if it allows for a speedier process for meter installation. However, data logging and telemetry is essential for improved compliance and must be installed under a prescribed timeframe – not put off.

4. Overland flow measurement

The capture of overland flow, separate from floodplain harvesting, is a key concern that must be fully regulated. This form of extraction under an unregulated licence must be fully measured. IRN strongly objects to this form of take being exempt from metering requirements. There also needs to be a separation of this form of take from the harvestable rights available under NSW policy. It of great concern that none of this form of water interception has been measured. The estimated volumes are still not available in draft replacement Water Sharing Plans 23 years after the adoption of the WMA. It is a requirement of the Basin Plan that all forms of interception be measured and reported for compliance under Sustainable Diversion Limits.

The capture of overland flows is a significant interception of water that should flow into streams, wetlands, and sites with cultural value as well as recharge groundwater sources.

Immediate measurement provisions should be required.

5. Compliance and enforcement tools

IRN supports strengthening the regulation so that NRAR can give directions and enforce the rules more effectively.

Conclusion

The NSW metering policy needs to be a top priority of the NSW Government with a focus on the objects and principles of the WMA so that Plan Limits are set with a numeric value to ensure compliance and provision of sufficient planned environmental water to sustain water sources in the future.

For more information on this submission contact:

Bev Smiles
[redacted]

SUBMISSION TO THE REVIEW OF THE IMPLEMENTATION OF THE NSW NON-URBAN METERING POLICY

I welcome this opportunity to provide a formal submission in response to the New South Wales (NSW) Government's review of The implementation of the NSW Non-Urban metering policy.

I have liaised closely with my industry group and other industry member organisations. This has resulted in recommendations having been compiled to guide the NSW Government for pathways towards improving metering compliance rates.

I stress the significant amount of time, money and resources which my business, and the entire irrigation industry, has invested into the NSW non-urban metering reform. The reform to date has been a very unfortunate, and disappointing, outcome for our industry. The current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity.

Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

There is absolute support for water to be metered and measured, but to date the reform has been extremely expensive, ineffective, with many barriers, inequities and complications resulting in non-compliance to water users through no fault of their own.

Prior to the launching of the reform industry expressed concerns the reform would be problematic, to the extent of being unachievable in some areas, without more practical methods of application. For the most part, these concerns were not heeded, and have since proven to have come to fruition. I recommend as part of this review that there must be an inward-looking focus back to the department and the decision makers who chose not to listen to the practical advice and solutions initially tabled. It is now time for industry to be heard, and have the practical, efficient methods which are proposed to see the policy implemented to deliver the metering requirements, without compromising or undermining the integrity and efforts exhausted to this point.

It is critical that the NSW State Government and NSW Department of Planning and Environment (DPE) do not take a lack of engagement to this review as a sign of a lack of interest, and instead I encourage further engagement following this period.

The NSW irrigation industry is currently navigating one of the most challenging periods in the history of the industry, as the Federal Government pushes legislative amendments to the Murray Darling Basin Plan which threaten the irrigation industry. Along with the current period being one of the busiest of the year, with winter crop harvesting and summer crop planting requirements demanding the full attention and time of myself and the entire irrigation industry, this has meant many irrigators do not have the time to engage in this consultation for the non-urban metering reform review in depth.

I recommend the NSW Government implement the following:

Provide an automatic temporary exemption for known barriers.

1) A list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome.

2) A mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the Duly Qualified Person (DQP) to formally register the circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

Pathway to nominate active works.

3) A pathway for water users to identify the works used to take licenced water from a water source. The process must be:
a) Cost free.
b) Easily reversible; subject to meeting the metering requirements at such a point in time as the work becomes active again.

4) A clear criterion as to what constitutes an ‘active’ or ‘inactive’ to ensure requirements are well understood. Currently, requirements for an inactive work are that the water user will need to demonstrate the work is physically incapable of taking water e.g., pipes removed and pump disabled, or pipes are sealed shut and connected to a tamper proof device.

Remove inconsistent metering conditions on licences.

5) The removal of pre-existing specific metering conditions on licences, and instead refer to one instrument. Ensuring all metering requirements are captured under one policy instrument, removes risk of inconsistency and confusion. There

should also be a “to the extent of any inconsistency” clause to provide further assurances on this.

Metering requirements that target risk.

6) The continuation of the requirement for DQP certification for AS4747 meters – I do not support the removal of this requirement due to the risk of damaging the industries reputation, and the integrity of the reform, if it were to be seen as cutting corners or being watered down.

7) The continuation of the work size-based model for inland NSW – I do not support a state-wide rollout of a stratified volume-based model, nor a catchment-by-catchment approach. This is due to:
a) The investment of significant resources into the well-established work size-based model, this would result in inequity, such as for water users who are captured under the current policy settings but would not be under changed settings.
b) The perception of non-standard expectations permitted through implementing varied requirements across different catchments.

8) Practical and simple reporting requirements – I do not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

9) Under the current work size-based model, review the list of exemptions with the goal to provide less costly options for smaller and low-risk water users across NSW, particularly noting smaller and low risk water users in at risk water sources.

10) Provide clarification for what will happen to water users currently eligible under the “Small, low risk works used solely to take water under a stock and domestic water access licence” that lapses on 1 December 2024.

11) Under the current work size-based model, clarify the following definitions:
a) Smaller water user.
b) Low risk water user.
c) Types of groundwater works.
d) Types of surface water works.

Revisit meter installation and certification requirements.

12) The government management and coordination of the DQP services to address DQP shortages in targeted areas and matching supply with demand. Due to the current market failure, water users feel the status quo is not effective, largely due to lack of financial incentive and rigorous requirements for DQPs that makes it not worthwhile, which has resulted in the number of DQPs actually operating being much lower than those listed as accredited. There is a view that if the Government were to take over the management and co-ordination of DQPs, this would then appropriately shift the responsibility onto Government to deliver their own reform.
This is preferable to other alternatives, such as removing the DQP requirement, or enabling the water user to self-certify their works, as these are seen as diluting the reform, and undermining its integrity, and therefore cannot be supported.
I recognise and appreciate the concerns as to whether this would fully resolve the problem or not, given labour shortages are a key issue in these areas irrespective of whether public or private sector employment. Therefore, this step, while supported, is considered only a part of the solution. There have been suggestions as to whether existing agencies such as WaterNSW could take on this responsibility, or a shift to Local Government. It is critical that a public-sector service is appropriately resourced and funded, to avoid repeating past mistakes of poor levels of service delivery.

13) Expansion of the definition of who can be a DQP to install and certify works for smaller and low risk water users – I support this in principle, noting however that there are worker shortages in many regional areas, meaning this alone will not address that issue. If still within the private sector, it will be imperative that there is adequate financial incentive for these services to be delivered, due to those capable of providing this service earning higher levels of profit from continuing their everyday businesses.

14) Enable less prescriptive installation pathways for closed conduit meters for smaller and low-risk water users.

15) A review of maintenance requirements, such as in-situ accuracy testing, which are not mandated under the national metering standards and are not possible under the current allocation of resources.

16) An increase in DQP support, particularly with burdensome administrative tasks, with a preference to streamlining tasks.

17) I do not support the use of any fee-for-service model or increasing the cost under Water Administration Ministerial Corporation (WAMC) to address the

shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the government needs to provide the appropriate level of service, which has not been provided in previous price-determination periods. It is also noted that the origin of this reform is in-part the result of inadequate service delivery by Government previously, in terms of metering and compliance, and it should be a responsibility of Government to rectify this poor service delivery.

Revisit management of telemetry systems.

18) The Government ownership and management of data loggers and telemetry systems – I support the government takeover of telemetry. The single source of truth for water users is their water meter. The additional responsibility to transmit water extraction data from a meter to government (which can also be accessed by the water user) should be held by the government. This would include:
a) Government coordination and bulk procurement, installation, maintenance and ownership of all data-loggers and systems (unless the water users opts-out and selects private ownership).
b) I am of the opinion that until the Government backend system, i.e., the Data Acquisition Service (DAS) is operational and able to receive data, it is not appropriate for telemetry to be required.

19) If prescribing meter and data logger combinations, the combinations provided must be cost-effective.

Revisit Floodplain Harvesting (FPH) measurement pathways.

20) Revisit the Floodplain Harvesting measurement policy to ensure it is effective practically - FPH monitoring and metering standards are not fit for purpose because they are completely impractical (irrespective of metering equipment and their respective issues).

Practical reporting processes: general water usage reporting.

21) I propose that entitlement holders should be permitted to take Floodplain harvested or overland flow water with approved, certified secondary meters until such time that the following barriers are addressed:
a) The shortage of DQPs prepared to install storage meters.
b) The availability of primary storage meters is improved.
c) The configuration and linkages of storage curves to storage meters and the DAS is streamlined so users can readily access data to enable them to be compliant.

d) Sufficient resources are allocated to WaterNSW to upgrade the DAS system to be fit for purpose for DQPs and water users.
e) The newly approved improvements to survey requirements can be utilised by surveyors.

22) Continue water user consultation to find a solution to policy failures, such as:
a) enabling users to identify a specific Local Intelligent Device (LID) in a storage within a works approval to take Floodplain harvesting water while still irrigating from other storages within a works approval without the requirement to subdivide the works approval; or
b) The measurement of water taken from the storage via a different outlet to the one used to take Floodplain harvesting entitlement.

Practical reporting process: general water usage reporting.

23) WaterNSW to send out a monthly and/or annual automated message (water users to nominate for email or letter) prompting water users to log their water use. Include the due date, a link to where this data can be entered online, or a PDF logbook print out that can be mailed in. This requires an up-to-date database of customer details, as well as correct licence information on the Water Access Licence Register.

24) Practical and simple reporting requirements - I do not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

25) I do not support any attestation/confirmation of data submitted by telemetry, as this form of data reporting is out of the control of water users, many of whom have not got access to this data.

Practical reporting process: faulty meters.

26) Due to the ongoing implementation barriers (e.g., access to DQPs), we strongly do not support amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

27) An extended s91i self-reporting form valid for a 6-month period to reduce administrative burden and simplify the current monthly reporting requirements.

Review cost-share arrangements.

28) The NSW Government must pay for their own reform, upgraded due to the government failure to deliver compliance services that water users paid for in previous determination periods. As the industry has been made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

Develop a clear communication strategy.

29) Water agencies to develop a succinct booklet and or factsheet on how to comply with the meeting reform to mail to water users or have available at ServiceNSW locations.

30) Water agencies to organise an in-person consultation services such as a roadshow with presentations, and/or 1:1 information sessions located in community hubs such as ServiceNSW.

31) Water agencies to collaboratively develop a ‘one-stop shop’ website with clear links to information (e.g., guidance tools, factsheets) relevant to each stage of the metering journey.

I, James Moore,appreciate the consultation opportunities provided through this review, and look forward to further occasions to provide feedback on addressing metering compliance barriers.

Lachlan Valley Water Inc
ABN 38 597 032 631 Sustainable, productive and efficient water use in the Lachlan Valley

NSW Government

Department of Planning and Environment - Water Group

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24 November 2023

Review of the NSW Non-Urban Metering Policy – November 2023

As a member of the NSW Irrigators' Council (NSWIC), this letter confirms that Lachlan Valley Water Inc supports the NSWIC submission *Addressing Metering Compliance Barriers* for the NSW Governments R*eview of the NSW Non-Urban Water Metering Policy.*

The NSWIC submission identifies a wide-reaching range of barriers that delay or completely prevent water users from complying with the NSW Non-Urban Water Metering Policy. These barriers are beyond the control of water users across the state who seek to comply with metering rules, they prevent effective policy implementation, and consequently there is a high likelihood of policy failure if they remain un-addressed.

The NSW irrigation industry supports continual improvements to metering, monitoring and measurement of water use; supports sustainable limits on use; and has zero tolerance for non-compliance with water laws. The Metering Policy, now approaching its fifth year of implementation, has seen many water users across NSW invest significant time, finance, and labour resources in efforts to achieve compliance where possible. This investment means there is generally a reluctance to 'water down' the policy in most (but not all) instances, rather, there needs to be a means to achieve full compliance.

The current state of affairs is a very unfortunate, and disappointing, outcome for our industry. In our view, current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity. Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

We appreciate the recent effort of the NSW Government and DPE-Water to identify problems and possible solutions to metering compliance barriers. The acceptance and public acknowledgement of these barriers provides transparency on reasons for non-compliance, noting that many are beyond the control of water users. However, the next step forward, with urgency, is the adoption of practical and enduring resolution of these barriers. The NSWIC submission provides a suite of helpful recommendations towards this goal, demonstrating the desire of the industry to work collaboratively to reach full metering compliance. As a high-level overview, NSWIC recommends:

1. Provide an automatic temporary exemption for known barriers;
2. Establish a pathway to correctly nominate inactive works;

3. Remove inconsistent metering conditions on licences;
4. Revisit metering requirements that target risk;
5. Revisit meter installation and certification requirements;
6. Revisit management of telemetry systems;
7. Revisit overland flow measurement pathways;
8. Improve practical reporting process for general water usage reporting;
9. Improve practical reporting processes for faulty meters;
10. Review cost-sharing arrangements; and
11. Develop a clear communication strategy, particularly for coastal NSW.

Lachlan Valley Water Inc appreciate the consultation opportunities provided to us through this review, and looks forward to further occasions to provide feedback on addressing metering compliance barriers.

Glenn Daley

Executive Officer

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NSW Government

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26th November 2023

Review of the Non-urban Metering policy – November 2023

The Lower Hunter Agricultural Water Users Inc. appreciate the opportunity to participate in the review.

We represent the agricultural water users in the Hunter tidal pool. There are 204 licence holders with a total of 23,759 ML of water. This represents 3.7% of the total licensed amount of water in the Hunter catchment.

We understand the issue that metering is to help with understanding what water is taken to ensure compliance and to help with policy making. We have no idea how many of the licence holders will need to install a meter.

Policy

We have had a number of meetings where metering has been raised and it does not seem that many people will need to meter, because they have a single pump with the outlet less than 100mm.

We agree with this exemption as to enforce metering would impose undue costs on small water users which is something the government does not want to do.

A large number of water users use electricity meters to measure water taken from the water sources. This has been a reliable, fit for purpose and inexpensive method for tracking water use. This still requires water users to meet the recording and reporting rules. Smart meters may be able to act as a data logger and telemetry resource, as many electricity meters have the capacity to report energy use remotely.

A process using smart electricity meters would capture 95% of data and hence be an effective tool for policy making.

Smart Electricity Meters

Smart Electricity meters offer more choice on how to comply & maintain the integrity of the system.

Smart electricity meters can be used without significant delays to compliance. These meters are mainly out of flood level.

The infrastructure is in place, it may just be the purchase of a smart meter which is significantly less that the water meters & no construction costs.

Pre condition to metering

We support the HVWUA in their call to remove the precondition specifying the need for a meter and instead refer to only one instrument the non urban water metering policy.

Duly Qualified Persons

Our irrigators operate on a flood plain. We frequently remove our pumps from the river banks. Under the proposed rules we would need a DQP to recalibrate the meter after every such event. Not only would it be very expensive for the water user, there would be a serious shortage of DGP's to meet the demand after flooding.

Lostock to Glennies Creek Pipeline

Our irrigators and constantly monitoring the salinity in the river system so that they are applying water with low enough electrical conductivity not to damage the crops and the land.

There is uncertainty as to the impact on the salinity in the tidal pool if the proposed pipeline progresses.

Water sharing plan – cease to pump

The previous proposed cease to pump rules would have seriously curtailed the opportunity for farmers to irrigate. Why would the farmers put a meter in when they would have limited ability to irrigate?

In Summary

1. We agree with the principal of measuring water use for both compliance and policy making reasons.
2. We agree with the exemption level of meters with less than 100mm outlet.
3. To gain the information required for policy decisions, we believe that smart electricity meters could be used. Further, there needs to be a simplified clear form to report usage.
4. We are in a flood plain so our circumstances differ with regard to the number of times our pumps need to be removed from the river bank. Under the current proposals this would put undue costs to the farmer & undue pressure on DQP's.
5. We have a lot of uncertainly on the future of our water source due to the proposed Pipeline and "cease to pump" rules. We would therefore request compliance date be extended until these issues are resolved.

[redacted] – 26.11.23

[redacted].

REVIEW OF THE IMPLEMENTATION OF THE NSW Non Urban Metering POLICY

As an introduction, my wife Kirsty and I have lived on [redacted], for over 25 years. We have two small children aged [redacted]. When our property was purchased the water licence we held was 'in perpetuity'. With the new Water Act in 2003 (I think it was), we were transferred to an allocation. During that process we had no recourse. We were encouraged to write to the department if we had concerns, but these were not addressed. One thing I do remember is this.
When I questioned whether our allocation would be adequate, I was told by the department at the time that the figure was arbitrary and largely irrelevant. The allocation would only ever mean something if metering was implemented, but I was assured that would never happen because it was considered cost prohibitive.

I don't mean to bore anybody with details, but here we are. It's 2023, metering is still cost prohibitive to small producers like ourselves, yet Water NSW is pressing ahead. I mention this in prelude only to demonstrate that Water NSW has previous poor form in regards to policy implementation and consultation. Many users, like my in-laws, had allocation stripped from them with no compensation. They were then told if they needed extra water they could buy it on the open market. Lovely.

If you only answer one thing through this process, tell me this:
As a small producer, how am I actually meant to steal water? How?
Obviously, water theft is a massive issue, so big that you have to lump the whole of the state together in a one size fits all policy – something that is wholly inappropriate.

How do I steal water?
If this is such a huge issue, can someone please tell me how I can become a water criminal? I have heard Water NSW representatives on radio giving examples, but these were all from areas in the far west of the state, nothing applicable to the Upper Hunter Valley.

So how do I steal water?
My 15-acre paddock can only handle so much irrigation or my crop will die. My electricity bill is big enough – I wouldn't dare pump a drop more than I have to. So, if I wanted to be a water criminal, how do I do it? Why are Water NSW so worried about small producers like ourselves?

Can I truck it out? It's cheaper to go to the Council standpipe, and their water is potable!
Can I somehow give it to my neighbour? Why? They already have allocations, they don't need my water. So what on Earth would I do with it? Nobody has been able to answer that question.

Should there be 'one size fits all' legislation?
One thing I continually hear is that 'metering has happened across the state, it's inevitable.' Why? We have totally different usage patterns to the problem areas of the state.
It stands to reason that not all rules should be the same for everyone.

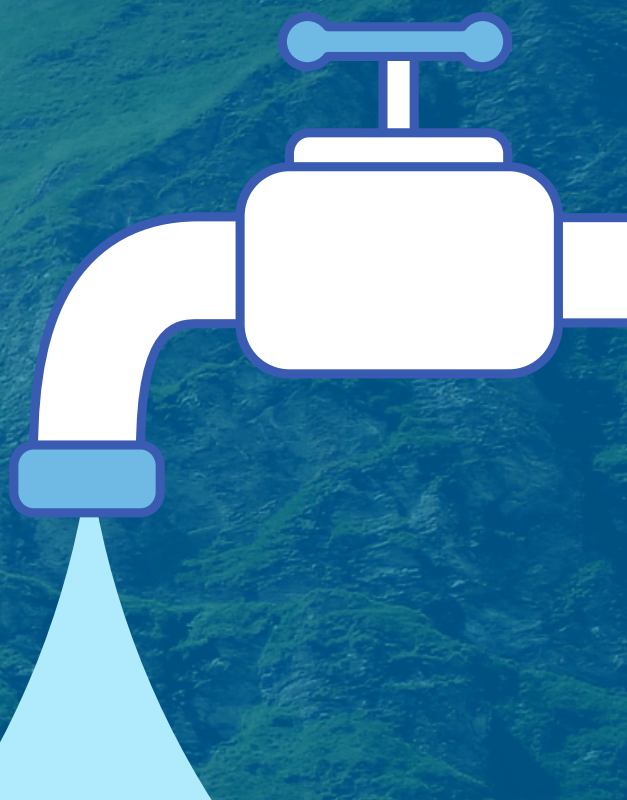
Here are my thoughts on the current legislation and the document titled: Review of the non-urban metering framework

The objective “Undue costs on smaller water users are minimised”
What is an ‘Undue Cost”, exactly? Nobody has been able to define this for me.
Metering will cost approximately $10k per pump. The only thing known about ongoing costs is that they will be high. (I don’t see anywhere near enough credence applied to ongoing costs). Define ‘Undue costs’ for us, please. Then we can all know just what Water NSW expects small producers to cough up without complaint. Our family cannot afford $10k. My neighbours are all elderly, they cannot afford it.

The objective: “Metering requirements are practical and can be implemented effectively”
This is far from practical. Much of the Upper Hunter lies within flood reach. In the last 3 years we had floods that put our pumps underwater about half a dozen times. Who pays when the metering equipment is underwater? I guess us.
These things put family farming and small production out of reach.

My conclusion:
We need volume based exemptions applied.
I would support legislation that changed pump size exemptions to volume based, with 100ML being a good start, with the ability to park allocation.

Review of the NSW Non-Urban Water Metering Framework



Addressing Implementation Issues and Compliance Restraints

Murrumbidgee Private Irrigators Inc

Murrumbidgee Groundwater Inc

Contents

Background

Murrumbidgee Private Irrigators Inc (MPII) and Murrumbidgee Groundwater Inc (MGI) appreciate this opportunity to make a submission to the Non Urban Metering Review Framework 2023.

MPII represents approximately 400 regulated and unregulated water users in the Murrumbidgee Valley outside of the Irrigation Corporations, Murrumbidgee Irrigation and Coleambally Irrigation Cooperative. Our membership takes in a broad area, communities and commodities, from Gundagai to Balranald to Moulamein. MPII accounts for approximately one third of the diversions on the Murrumbidgee system with approximately 400,000 megalitres being made up of High Security and General Security entitlements dispersed amongst the members.

MGI represents approximately 270,000 megalitres of groundwater entitlements shared by approximately 250 groundwater users in the Murrumbidgee Valley which comprises a large agricultural area in the vicinity of 84,000 square kilometres in the south west of NSW. The MGI members' generation of food and fibre production support the townships of Leeton, Griffith, Darlington Point, Coleambally, Hay, Carathool and Jerilderie. Many of the farming enterprises provide extensive employment opportunities due to the high labour component required to plant and harvest their commodities.

The Riverina known as the "food bowl of NSW" produces these main summer crops such as corn, sorghum, sunflowers, rice, cotton, prime lambs, beef cattle, wine grapes, citrus, almonds, walnuts and wool.

Introduction

This report is a submission by MPII & MGI to the NSW Government's review of the non-urban water metering framework. The report aims to identify and address the barriers that prevent or delay water users from complying with the new metering policy, which requires accurate and timely measurement and reporting of water use. We would like to reiterate that Murrumbidgee irrigators are willing to comply with and are in agreeance with accurate and auditable water metering, but face various obstacles that are beyond their control, such as inconsistent policy instruments, supply chain disruptions, lack of qualified installers, technical issues with telemetry, and high costs of metering equipment.

Recommendations to address metering compliance issues –

Ensuring that metering requirements only apply to works taking water.

The metering consultation paper highlights many inactive works, that are currently not registered as 'inactive' within WaterNSW database. It suggests that if these works were correctly identified that there would be a 55% reduction.
As these inactive works are currently listed as non-compliant, this raises the question of the accuracy in the compliance dataset.

To make it easier for water users to provide the necessary information to the government, the following measures should be considered:

Streamlined Process for Inactive Works:

- Revise the process for identifying works that do not take any water to make it more user-friendly and cost free.
- Eliminate or reduce the fee associated with marking a work as inactive and the ability to reverse when a work becomes active again. Considering the reported concerns about the current fee being prohibitively expensive.
- Implement NRAR to hold responsibility of performing inactive work surveillance to ensure compliance.

Reviewing metering requirements to target risk more effectively.

The current rules regarding water metering may not effectively achieve the policy objective of minimising undue costs for smaller water users. The existing framework imposes metering requirements on all water supply works unless exempted. The current exemption is based on work size, linking the need for a meter to the risks associated with the individual work and its physical capacity to take water. This approach was initially supported due to its static nature and alignment with risk factors. However, evidence suggests that these rules may be imposing disproportionate costs on certain water users, particularly smaller or infrequent ones.

The implementation of the current rules has led to challenges, including a high demand for meter installations that cannot be met by the current market. Many small water users are required to install meters at a cost that may exceed the risk they pose. Additionally, exemptions based on work size thresholds do not apply uniformly across all water sources, leading to confusion and perceived inequity between existing and new work approval holders.

Optimal Risk-Based Review of Metering Requirements:

- Maintain the requirement for DQP certification of AS4747 meters. MPII & MGI support NSWIC in opposing the removal of this requirement to safeguard the irrigation industry's reputation and the integrity of the reform.
- Continue to work with irrigators and low volume water users through consultation processes to implement exemptions or alternative strategies to assist in minimising the cost.
- Permanently incorporate the exemption for "small, low-risk works used solely to take water under a stock and domestic water access license" (scheduled to lapse on 1 December 2024).
- Simplify reporting requirements

Revisiting installer requirements to accelerate the progress.

There is a shortage of active duly qualified persons (DQPs) to install the required meters under the framework. Becoming a certified meter installer involves specific certification requirements and a three-day course with reaccreditation required. While there are around 230 qualified DQPs registered with WaterNSW, only a fraction have been actively installing meters, leading to concerns about meeting water users' demand, especially in later stages of the rollout.

Reasons for the shortage include administrative burdens, regulatory risks, limited support for equipment failures, labor shortages in regional areas, and a disconnect between DQPs and water users due to geographical distances. Efforts like the Metering and Measurement Virtual Marketplace aim to address these issues, but challenges persist. The DQP Portal, used for recording metering equipment data, has contributed to administrative burdens, prompting recent upgrades.

Additionally, all meters must be re-validated every five years, with in-field accuracy testing required in NSW. Few DQPs are willing or able to conduct such testing due to prohibitive costs.

Streamlining Installer Requirements and Accelerating Progress:

MPII & MGI support the recommendations put forward by NSWIC in their submission as per below:

The Department has put forward several possible responses for consideration:

- NSWIC supports Government coordination of DQP services to match supply with demand.
    - i) The Government should assume responsibility for DQPs as this appropriately shifts the onus onto Government to deliver its reform.
    - ii) This is preferred to alternative options, such as removing the DQP requirement or enabling the water user to self-certify, as these are seen as watering down the reform and undermining its integrity.
    - iii) Existing agencies such as WaterNSW could take on this responsibility. If this were to occur, the Government must appropriately resource and fund a public-sector service to deliver its reform, to avoid repeating past mistakes of where farmers were paying for services and compliance that agencies failed to deliver.
    - iv) While supported, the Government assuming responsibility for DQPs is considered only a part of the solution.
- NSWIC supports more support services for DQPs, specifically that streamline administrative tasks.
- NSWIC supports the Government identifying areas of high demand and coordinating DQP services to match the need. However, we oppose this occurring on a fee-for-service basis.
- NSWIC supports expanding the DQP workforce by amending the rules and training skilled workers via a short course.
    - a) This initiative will not address worker shortages experienced in regional NSW. If within the private sector, adequate financial incentive for these services will be imperative. At present, many service providers – such as engineers, surveyors, electricians, etc. – are in high demand and can profit more from their standard business services than DQP services.

- NSWIC opposes less prescriptive installation pathways for closed conduit meters. Due to the ongoing barrier of DQP accessibility and negative public perception that water users watering down the reform.
- NSWIC supports the Department's desire to review the requirement for in-situ accuracy testing which is not mandated under the national metering standards and not achievable with current DQP availability.
- NSWIC does not support the use of fee-for-service models or increasing the cost under WAMC to address the shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the Government needs to fund the appropriate level of service, which has not been provided in previous price-determination periods.

Making data systems and equipment standards more fit for purpose

The installation of data loggers and telemetry poses challenges, particularly in meeting compliance deadlines for the non-urban water metering framework. Telemetry is crucial for transmitting timely water extraction data securely between meters, government, and water users. Although progress has been made, challenges affecting data quality and reliability persist.

Government-set standards lack guarantees for listed data loggers, and issues include premature battery degradation, market-driven compromises on data quality, complex installation processes leading to errors, and systems not meeting expectations. Additionally, specifications may hinder industry innovation and impose extra costs by excluding mature telemetry systems and restricting field configurations by DQPs. Addressing these issues is essential for realising the full potential of telemetry data and ensuring effective water source management.

Optimize Data Systems and Equipment Standards

- MPII & MGI support the decoupling of data loggers and telemetry. Through the modification of compliance requirements to allow independent installation of meters and data loggers, pausing data logger requirements temporarily. This strategy enables optimisation of data systems and rollout options while utilising the available DQP workforce efficiently for meter installations.
- MPII & MGI support data logger and telemetry rollout through government-led bulk procurement, leveraging the existing DQP workforce for installation. Government should ascertain ownership of data loggers and meters as part of its own reform. Water users should have the right to opt out of Government owned data loggers and meters for private meters if they choose to.

Improving water use reporting

Limited reporting of water take information is undermining effective water resource management within the non-urban metering framework. The framework introduced new conditions for recording and reporting water take, varying based on the metering equipment standard.

Despite streamlined reporting requirements, significant gaps exist in the data sent to WaterNSW. Water users with works not required to meter report annually, while those with required metering but lacking

telemetry connection report monthly. Users with telemetry-connected meters transmit daily, also reporting monthly for basic landholder rights.

The low rate of reporting in some water sources hampers resource management, forcing the government to make conservative assumptions. Although interventions, such as reminder letters, have been attempted to improve compliance, rates remain insufficient for confident resource management decisions.

To give context to inefficient water use reporting – a retiring farming couple selling their property chose not to install the telemetry metering to a ground water source on their property due to unnecessary costs as they were selling. A young couple new to farming purchased the property from them. Now having owned the property for 18 months there has been no contact from any Government agency to inform the new farmers of the metering requirements that needed to put in place. No education and no letter of support were provided. Only by talking with other farmers and joining MGI as members did they get the information that they needed. To add to the compliance issues already at play, the couple had not yet purchased the water only the land. In discussions with WaterNSW they were denied an iWAS account to report water use as they didn't have the WAL's. There are farmers wanting to comply with the water use reporting but restrictions like these are making it impossible, therefore skewing the current data and creating inaccuracies.

Improved mechanisms for water use reporting

- MGI & MPII do not support attestation of data logging and telemetry.
- Create an online customer email/letter package when a new property with irrigation access is purchased, a new license is created, a license is transferred or purchased. Detailing the correct information and steps that the water user requires to correctly report usage.
- Farmers are becoming more technologically savvy and as new generations approach it would be ideal to look at developing an APP for water ordering, transferring and water use reporting. To report in real time rather than writing on a piece of paper (likely to be lost) and logging into a computer later that day (likely to forget).
- Streamline water use reporting to seasonal activities when water is being used. Accountability on the farmer to report when in use, if they do not report it is assumed that they have not taken water in that timeframe.

Ensuring a measurement pathway for take of overland flow in unregulated water sources

Measuring overland flow take using non-urban metering equipment is impractical. Different licensed entitlements, such as floodplain harvesting licenses and unregulated river licenses, are used for overland flow take, each subject to distinct measurement rules. The non-urban metering framework mandates closed conduit or open channel metering equipment for overland flow taken with an unregulated river license. In contrast, a floodplain harvesting license allows measurement through point-of-intake metering equipment or storage measurement devices.

MPII & MGI support the recommendations made by NSWIC.

Strengthening compliance and enforcement powers

Enhancements to compliance tools are deemed essential for ensuring efficient and effective enforcement outcomes, particularly in the context of water laws in New South Wales (NSW), including metering regulations.

The Natural Resources Access Regulator (NRAR) has focused on ensuring compliance among high-volume, active works, educating water users about rules and obligations before compliance deadlines, and monitoring and enforcing compliance for groups with passed deadlines.

To uphold fairness and proper meter operation, NRAR requires clear, effective, and efficient enforcement tools. Practical experience has highlighted the need for improved tools to reinforce obligations for all water users, supported by more effective enforcement powers to promote compliance. Various areas require changes to enhance the efficacy of enforcement tools.

Compliance and Enforcement Powers in Water Regulation

- MPII & MGI do not support time limits on repairs and maintenance to broken meters. Due to the lack of DQP's it would be unrealistic to fall within the timeframes. Providing a section in the iWAS portal to report a faulty meter and a time that has been given to the farmer by a DQP for fixing the meter, should be all that is required. If the date given needs to be extended then the farmer would contact waterNSW again to extend the date. Thus reducing time constraints for the farmer and administration burden for waterNSW.

Conclusion

The submission by MPII and MGI to the Non-Urban Metering Review Framework 2023 underscores the importance of addressing barriers hindering water users' compliance. The diverse challenges faced by Murrumbidgee irrigators, including inconsistent policies, supply chain disruptions, lack of qualified installers, technical issues with telemetry, and high metering equipment costs, emphasise the need for pragmatic and feasible solutions.

The recommendations presented by MPII and MGI focus on streamlining processes, optimising metering requirements, revisiting installer requirements, improving data systems and equipment standards, enhancing water use reporting mechanisms, ensuring a measurement pathway for overland flow, and strengthening compliance and enforcement powers. These recommendations aim to strike a balance between regulatory objectives and the practical realities faced by water users, emphasising collaboration between stakeholders and government agencies.

NEW SOUTH WALES IRRIGATORS' COUNCIL

Addressing Metering Compliance Barriers

Review of the implementation of the **NSW Non-Urban Water Metering Policy**

Executive Summary

This report identifies barriers that delay or prevent NSW water users from complying with the NSW Non-Urban Water Metering Policy (herein Metering Policy) and suggests pathways forward to accelerate progress on compliance.

From the outset, the NSW irrigation industry supports continual improvements to metering, monitoring and measurement of water use; supports sustainable limits on water use; and has zero tolerance for non-compliance with water laws. NSWIC welcomes the NSW Government's review of the implementation of the Metering Policy to identify and address barriers that require urgent attention.

This report follows a report released by NSWIC titled "Barriers to Metering Compliance" in August 2021 which documented legitimate barriers to compliance resulting from policy implementation, administration, and technical failures. The irrigation industry has been on the forefront of making these issues known to the relevant authorities and seeking timely and decisive action. It is concerning that many of these barriers remain persistent and had not been publicly acknowledged or addressed until this review was announced. To be clear, irrigators want to comply with the new Metering Policy and are making their best efforts to comply – but these policy implementation barriers are beyond the control of water users.

Barriers to metering compliance continue to span all aspects of the reform; from communication and education of the reform, confusing overlaps in policy instruments, market shortfalls such as difficulty accessing appropriate meters, lack of local DQPs, connecting to telemetry, and ongoing issues with maintenance of meters. All this is overshadowed by the costly nature of this reform on irrigators who are responsible for 100% of the cost-recovery, despite the reform being driven by the NSW Government imposing ambitious standards beyond the requirements of the National Water Initiative (2004). This leaves irrigators, particularly smaller users, questioning their ability to remain financially viable.

As part of the review, NSWIC calls on the NSW Government to consider a suite of recommendations that identify pathways for compliance and resolve the barriers to compliance.

Contents

Summary of Recommendations

In collaboration with NSWIC member organisations, the following recommendations provide guidance to the NSW Government for pathways towards improving metering compliance rates.

NSWIC notes that it is currently a very challenging period of time for the NSW irrigation industry and our communities, particularly with the Federal Government seeking substantial amendments to the Murray-Darling Basin Plan. NSWIC notes that many of our members have reported not having the time or resourcing to effectively engage in the Metering Policy consultation, due to engagement in other, exceptionally high-risk policy changes occurring concurrently. NSWIC urges DPE not to take a lack of engagement as a sign of a lack of interest, and instead encourages further engagement following this period.

The NSW irrigation industry has invested significant resources, including finance and time, into the new Metering Policy. It is essential that this review find practical and efficient methods for policy implementation, as opposed to back peddling on metering requirements.

1. Provide an automatic temporary exemption for known barriers.

1) NSW Government provide a list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome (noting the Minister may revoke or amend the exemption at any time). These exemptions include, but are not limited to:
   a) Inconsistent metering conditions exemption
   b) Unavailable Duly Qualified Persons exemption
   c) Data Logger and Telemetry exemption
   d) Faulty Meter exemption

2) NSW Government provide a mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the DQP to formally register the circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

This is intended as an interim measure while barriers are resolved.

2. Pathway to correctly nominate works.

3) Provide a simple pathway for water users to correctly identify inactive works that are not used to take licensed water from a water source, or which only take water under a basic landholder right. The administrative process must be:
   a) Cost-free.
   b) Easily reversible, subject to meeting the metering requirements at such a point in time as the work becomes active again.
   c) Streamlined by removing inactive work physical impediments (i.e. so declaring a work as inactive replaces the need for physical impediments).
   d) NRAR to hold the responsibility of performing inactive work surveillance to ensure compliance.

3. Remove inconsistent metering conditions on licences.

4) NSW Government to remove pre-existing specific metering conditions on licences, and instead refer to one instrument – the non-urban water Metering Policy. This includes a "to the extent of any inconsistency" clause to provide further assurances on this.

5) NSW Government to resolve all inconsistencies between licence conditions, Water Sharing Plan and the Non-Urban Water Metering Policy, particularly noting that under the current policy settings:
   a) water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded; and
   b) compliance date for coastal NSW is 1 December 2024.

4. Metering requirements that target risk.

6) Review the exemption under the work size-based framework. Currently the framework states that water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded. NSWIC suggests:
   a) Groundwater bore measurement should be 100mm consistent with surface water pumps, with the measurement point being the diameter of the outlet.
   b) Groundwater wells to be eligible for the same exemption as groundwater bores – noting that it is the size of the pump within the well that affects water uptake.

7) Continue requirement for DQP certification of AS4747 meters - NSWIC does not support removing this requirement due to the risk of damaging the irrigation industry's reputation and the integrity of the reform.

8) Permanently implement the "small, low risk works used solely to take water under a stock and domestic water access licence" exemption (lapses on 1 December 2024).

9) Further consultation with industry on the introduction of a "low volume water user" opt-in exemption, or alternative strategies, to provide less costly options for low volume water users.

10) A further 12-month extension to 1 December 2025 (at minimum) for coastal compliance to address:
    i) Concerns that the current coastal compliance deadline of 1 December 2024 is not sufficient time to effectively implement and react to proposed regulatory changes as part of the metering review.
    ii) Address DQP shortages in coastal catchments.
    iii) Drought conditions predicted to affect coastal catchments throughout 2023-24, which may hinder in-situ meter testing and impact farm productivity and income.
    iv) Implement an effective education strategy engaging all coastal water users on their water use requirements including water ordering, measurement, recording and reporting.

11) Practical and simple reporting requirements - water users to submit a monthly statement on the months they take water using a work. If a statement is not submitted, WaterNSW to recognise that the work was not used to take water that month. This streamlines data collection and removes the administrative burden on time-poor farmers, many of whom only pump when required (e.g., dry conditions).

5. Revisit meter installation and certification requirements.

12) NSWIC supports Government coordination of DQP services to match supply with demand.
    i) The Government should assume responsibility for DQPs as this appropriately shifts the onus onto Government to deliver its reform.
    ii) This is preferred to alternative options, such as removing the DQP requirement or enabling the water user to self-certify, as these are seen as watering down the reform and undermining its integrity.
    iii) Existing agencies such as WaterNSW could take on this responsibility. If this were to occur, the Government must appropriately resource and fund a public-sector service to deliver its reform, to avoid repeating past mistakes of where farmers were paying for services and compliance that agencies failed to deliver.
    iv) While supported, the Government assuming responsibility for DQPs is considered only a part of the solution.

13) NSWIC supports more support services for DQPs, specifically that streamline administrative tasks.

14) NSWIC supports the Government identifying areas of high demand and coordinating DQP services to match the need. However, we oppose this occurring on a fee-for-service basis.

15) NSWIC supports expanding the DQP workforce by amending the rules and training skilled workers via a short course.

a) This initiative will not address worker shortages experienced in regional NSW. If within the private sector, adequate financial incentive for these services will be imperative. At present, many service providers – such as engineers, surveyors, electricians, etc. – are in high demand and can profit more from their standard business services than DQP services.

16) NSWIC opposes less prescriptive installation pathways for closed conduit meters. Due to the ongoing barrier of DQP accessibility and negative public perception that water users watering down the reform.

17) NSWIC supports the Department's desire to review the requirement for in-situ accuracy testing which is not mandated under the national metering standards and not achievable with current DQP availability.

6. Revisit management of telemetry systems.

18) NSWIC does not support the review of the Data Logging and Telemetry Specifications 2021. There is currently enough information to inform the decision to decouple telemetry from the metering reform. The specifications could be revisited when a data loggers and telemetry implementation framework is developed.

19) NSWIC supports the decoupling of data loggers and telemetry from meter installation requirements. This will:
   a) increase metering compliance;
   b) permit time for the DAS to be operational and receive data properly;
   c) ensures the selected telemetry equipment can meet cyber security requirements (many pre-installed telemetry units cannot connect to the system for this reason); and
   d) allow for development of a practical strategy for data loggers and telemetry to ensure compliance can be achieved practically before deadlines are set.

20) NSWIC supports the Government assuming responsibility for telemetry systems. The single source of truth for water users is their water meter. The Government should accept the additional responsibility to transmit water extraction data from a meter to Government. This would include Government coordination and bulk procurement, installation, maintenance, and ownership of all data-loggers and telemetry systems (unless the water users opts-out and selects private ownership).

21) NSWIC supports the Government providing recommended data loggers and meters combinations for optimal functionality. The cost of these combinations must be taken into consideration for water users and businesses of all sizes.

7. Revisit overland flow measurement pathways.

22) NSWIC opposes the proposal to exempt water users taking overland flow under an unregulated access licence from metering requirements. This would feed into further negative public perceptions, would lack political support for regulatory change, and does not work towards an enduring solution.

23) Revisit the Floodplain Harvesting measurement policy to ensure it is effective practically – (e.g., revise the timeframes for FPH implementation, accounting for the time required for the current market failure to respond to demand).

24) Improve private and government-installed secondary devices that are not fit for purpose (e.g., gauge board height markings).

25) NSWIC proposes that entitlement holders should be permitted to take Floodplain Harvested or overland flow water with approved, certified secondary meters until such time that the following barriers are addressed:
    a) The shortage of DQPs prepared to install storage meters.
    b) The availability of primary storage meters is improved.
    c) The configuration and linkages of storage curves to storage meters and the DAS is streamlined so users can readily access data to enable them to be compliant.
    d) Sufficient resources are allocated to WaterNSW to upgrade the DAS system to be fit for purpose for DQPs and water users.
    e) Surveyors can utilize the newly approved improvements to survey requirements.

26) Continue water user consultation to find a solution to policy failures, such as:
    a) Enabling users to identify a specific Local Intelligent Device (LID) in a storage within a works approval to take Floodplain Harvested water while still irrigating from other storages within a works approval, without the requirement to subdivide the works approval; or
    b) The measurement of water taken from the storage via a different outlet to the one used to take Floodplain Harvesting entitlement.

8. Improve practical reporting process: general water usage reporting.

27) Develop a clear education strategy (encompassing in-person, print and online resources) for water usage reporting expectations, particularly for smaller and coastal water users. This could include resources on water ordering, recording, and reporting via logbook and iWAS.

28) WaterNSW to send out a monthly and/or annual automated message (water users to nominate for email, letter, or text) prompting water users to record their water use. Include the due date (if applicable), a link

to iWAS (online) or a logbook (physical). This requires an up-to-date database of customer details as well as correct licence information on the Water Access Licence Register.

29) Development of an iWAS app for improved access on mobile phones – water users can input meter readings while in the field. This prevents double handling data of data; once in the field, then again when entering data into iWAS on a desktop computer.

30) Practical and simple reporting requirements - water users required to submit a monthly statement on the months they take water using a work. If a statement is not submitted, WaterNSW to recognise that the work was not used to take water that month. This streamlines data collection and removes the administrative burden on time-poor farmers, many of whom only pump when required (e.g., dry conditions).

31) We do not support any attestation/confirmation of data submitted by telemetry, as this form of data reporting is out of the control of water users.

9. Improve practical reporting process: faulty meters.

32) Due to the ongoing implementation barriers (e.g., access to DQPs, and fit for purpose meters), we strongly do not support amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

33) For the s91i Extension Form, add a question to clarify the length of extension the water user is requesting (in addition to water users providing the proposed date that the metering equipment will be repaired/replaced). Providing an extension for this requested length of time (as opposed to requiring monthly forms) will reduce the administrative burden for water users and WaterNSW.

10. Review cost-share arrangements.

34) The NSW Government must pay for its own reform, which was driven by the Government's failure to deliver compliance services that water users had paid for in previous pricing determination periods. If the industry is made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

11. Develop a clear communication strategy.

35) Water agencies to collaboratively develop a clear educational approach to inform coastal NSW about the metering reform and their upcoming compliance date of 1 December 2024, including;

a) Informative and succinct online and print resources (e.g., information booklets, factsheets, videos)
b) In-person consultation opportunities, held in local community hubs such as ServiceNSW
c) A metering information 'roadshow', similar to those previously held inland
d) Further development of resources available on WaterNSW website to inform water user of their measurement, recording and reporting requirements, including;
    i) Improved communication of customer forms; and
    ii) Navigation and streamlining improvements to iWAS.

NSW Irrigators' Council

The NSW Irrigators' Council (NSWIC) is the peak body representing irrigation farmers and the irrigation farming industry in NSW. NSWIC has member organisations in every inland valley, and several coastal valleys. Through our members, NSWIC represents more than 12,000 water licence holders who access regulated and unregulated surface water systems, and groundwater systems. NSWIC's member organisations include valley water user associations, food and fibre groups, irrigation corporations and commodity groups from the rice, cotton and horticultural industries.

Introduction

For background on the Metering Policy, read the 2021 NSWIC Barriers to Metering Compliance Report.

The NSW irrigation industry supports continual improvements to metering, monitoring and measurement of water use; supports sustainable limits on use; and has zero tolerance for non-compliance with water laws.

However, the new Metering Policy roll-out has faced significant barriers beyond the control of irrigators that delay or prevent irrigators from compliance. Almost all barriers reported by NSWIC in August 2021 remain. This is the result of DPE-Water and WaterNSW failing to execute their responsibilities effectively to deliver the reform, and to address barriers at the earliest opportunity.

The nature of these systemic barriers, in that they are administered by relevant agencies, highlights that the barriers are beyond the control of irrigators. Irrigators note that the scale and impact of metering barriers is greater than claimed by the Government agencies responsible for rolling out the Metering Policy, and without Government intervention the likelihood of policy failure is high.

The NSW irrigation industry has invested significant resources, including finance and time, into the new Metering Policy. It is essential that this review find practical and efficient methods for policy implementation, as opposed to back peddling on metering requirements.

The ongoing implementation issues are widely recognised. For example, when announcing the no-meter, no-pump Metering Policy review in June 2023, the NSW Water minister noted: *"We know there are some valid reasons for this including difficulties in accessing the right people to install new meters, supply chain disruptions, the cost of equipment and of course the recent flooding. These are barriers we will be addressing*[1]*."*

[1] NSW Government (26 June 2023). 'No-meter, no-pump. NSW Government announces a thorough review to crackdown on non-urban metering compliance.' [Website]. https://water.dpie.nsw.gov.au/news/no-meter-no-pump.-nsw-government-announces-a-thorough-review-to-crack-down-on-non-urban-metering-compliance

This was supported by an email from the Natural Resources Access Regulator (NRAR) on 11 July 2023 to water users that read, *"As you would know, some water users have experienced barriers to compliance, such as: a shortage of qualified installers and certifiers, impacts of COVID-19 restrictions, impacts of widespread flooding across NSW, some lingering supply chain issues."*

The IGWC Metering Report Card 2021-2022 also noted barriers to compliance, specifically identifying the shortage of available and accessible Duly Qualified Persons (herein DQPs): *"The Inspector-General understands that the actual number of active and available CMIs in NSW (known as DQPs in NSW) is significantly lower than this number [175] and is a significant risk to Metering Policy implementation in NSW. As NSW have a significant number of meters as part of their reform program, the number of CMIs available will be vital for ensuring their metering reform goals are met."*[2]

The Metering Policy review is welcomed by industry, which has long communicated farmers' will to comply, but noted obstruction by external barriers and anomalies that make compliance impossible and leave smaller water users facing exorbitant costs.

[2] Inspector General of Water Compliance. 'Murray-Darling Bason – Metering and Measurement Report Card'. https://www.igwc.gov.au/sites/default/files/2023-07/igwc-metering-report-card-2021-22.pdf

Terms of reference

DPE Water included the following focus questions in the metering consultation paper. Short answers to each focus question can be found in Appendix B.

1. **Ensuring that metering requirements only apply to works taking water:**
   - What would make it easier for water users to give government this information?
2. **Reviewing metering requirements to target risk more effectively:**
   - Should there be flexibility in metering and measurement standards reflecting risk to water sources, or should there be one standard across the board?
   - Would it be easier to understand and comply with metering rules based on entitlement or volume of take than the current approach based on infrastructure size?
   - If a volumetric approach was to be implemented, should it be consistent across the state, or tailored by catchment to reflect the different water use behaviours and water management risks in different areas?
   - What are the practical implementation challenges that water users might experience in complying with metering requirements based on volume of take or entitlement?
   - Are there any issues specific to different industries that take water under a licence that should be considered in relation to the possible options described?
3. **Revisiting installer requirements to accelerate progress:**
   - Who should install metering equipment?
   - Do you think there would be benefits from government involvement in the DQP market? For example:
     - if government contracted and coordinated DQP services then passed on the costs?
     - if government provided fee-for-service DQPs?
   - What forms of further training or support would make it more viable for already qualified DQPs to actively participate in the market?
   - Is there benefit in revisiting the skill sets and training required for DQPs? Are the current training and certification requirements limiting the market or are the other factors more significant?
4. **Making data systems and equipment standards more fit for purpose:**
   - Would separating the requirements for meter installation from data loggers and telemetry be beneficial? Would an extension of the compliance timeframes for data logging requirements be helpful?
   - Would government support for rolling out data loggers and telemetry be beneficial?
   - What are the benefits and risks if government was more prescriptive about the suitable products/technologies and combinations of meters and data loggers?
   - Do water users want access to more frequent meter data?
   - Is it important to be able to use existing telemetry systems that are currently excluded (e.g., SCADA)?
   - What forms of training and support would make it easier for DQPs to navigate data logger and telemetry installation?
5. **Improving water use reporting:**
   - How can we improve the mechanisms for water use reporting?
   - What would make it easy for water users to complete an annual attestation of the volume of water taken and how it was measured?
6. **Ensuring a measurement pathway for take of overland flow in unregulated water sources:**
   - Will this proposed change enable appropriate measurement and reporting of overland flow take in unregulated river entitlements?
7. **Strengthening compliance and enforcement powers:**
   - Do you think the suggested improvements to compliance and enforcement tools will clarify the expectations on water users and make the system fairer?

What progress has been made?

The Metering Reform has been in place for five years, with large water users, northern inland and southern inland areas (tranches one, two and three) now required to comply. Water users in coastal NSW (tranche 4) are due to comply by 1 December 2024 (unless a condition on the water access licence states otherwise).

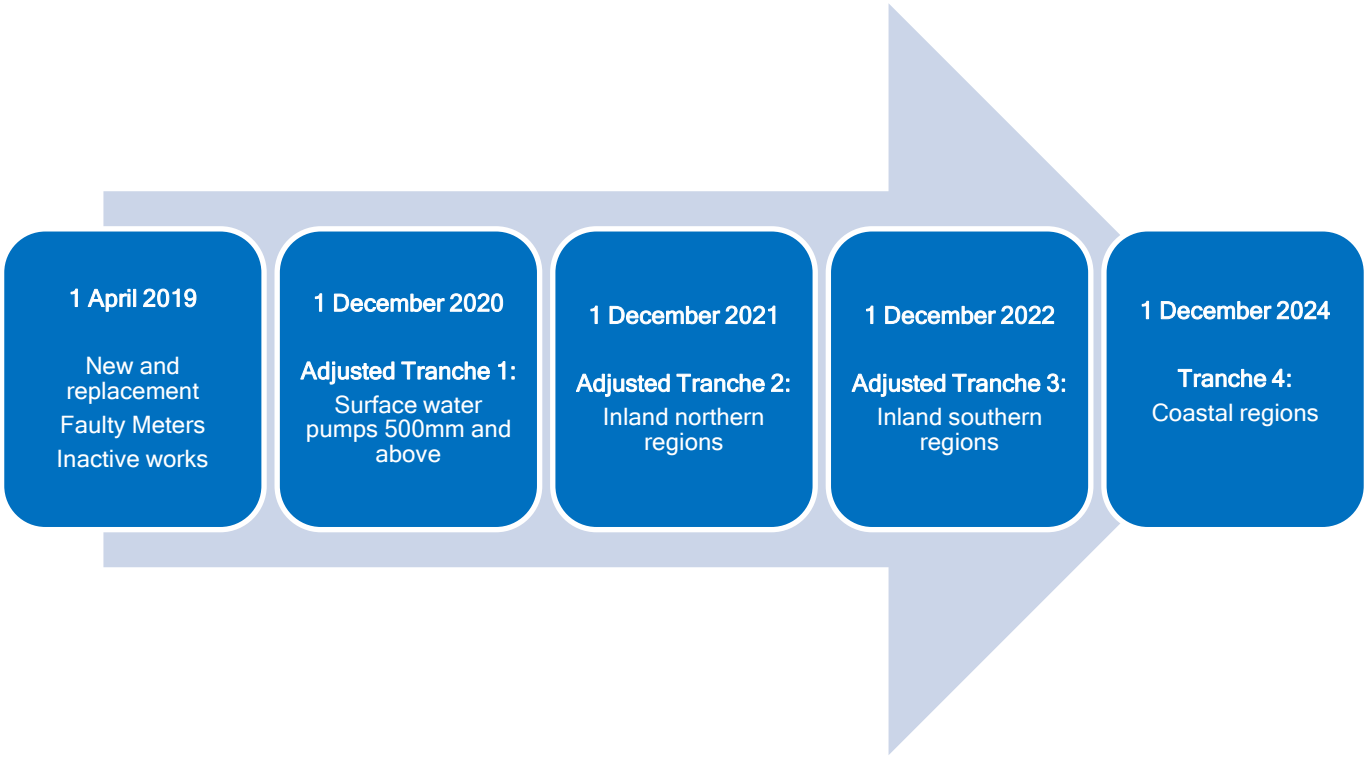


Figure 1: Timeframe for rollout of the Metering Policy

The Natural Resource Access Regulator (NRAR) is required to undertake regular reporting on metering compliance – that is, compliance to the new Metering Policy.

NRAR notes that when undertaking compliance visits to Adjusted Tranche 1 water users, field officers found many pumps "were smaller than the 500mm threshold or unable to take water". By excluding these works, NRAR reported that "over 90% of active works 500mm and above have accurate meters in place[3]".

These positive statistics are supported by compliance results in the metering compliance state of play (2020 group). Key figures show that for Adjusted Tranche 1 water users (n=547):

- 69% of works fully comply with the new rules.
- More than 80% of pumps NRAR inspected are connected to independently certified accurate meters.

[3] Natural Resources Access Regulator. 'Metering Compliance Reports' [website]. https://www.nrar.nsw.gov.au/progress-and-outcomes/metering-compliance-reports

- Fully compliant works statewide were calculated as (figures correct as of 1 December 2021):
  - 23% in July 2021.
  - 54% in September 2021.
  - 69% in December 2021. [4]

Overtime, NRAR has altered its data collection and reporting methods. Methods now rely on information from the water licensing system and DQP Portal – two systems fraught with inconsistencies and often incorrect.

Furthermore, the data does not acknowledge the compliance of works to previous metering requirements. This can incorrectly lead the media and general public to believe that irrigators have made no attempt to meter and record their water take, when in truth many meters compliant to earlier requirements are still in place while irrigators work to overcome external barriers associated with the new gold-standard metering requirements.

The most recent NRAR metering compliance figures from July 2023[5] report that:

Tranche	**Location**	**Overall compliance rate for all works***	**Overall compliance rate for all active works****
2	Northern Inland	10%	20%
3	Southern Inland	22%	35%
4	Coastal Regions	Not calculated	Not calculated

Table 1: NRAR metering compliance data July 2023

*Includes all works that the Metering Policy applies to

** Excludes works that are likely to be inactive or unable to take water

The DPE Water metering consultation paper suggest compliance rates for active works capable of taking water:

Tranche	**Water Users**	**Compliance rate**
1	Surface water pumps >500mm	>70% (data from fieldwork)
2	Northern Inland	20%
3	Southern Inland	38%
4	Coastal	N/A compliance date not yet reached

[4] Natural Resources Access Regulator. 'Metering compliance state of play: 2020 group' [website]. https://www.nrar.nsw.gov.au/how-to-comply/metering/compliance-state-of-play

[5] Natural Resources Access Regulator. 'Metering Compliance Reports' [website]. https://www.nrar.nsw.gov.au/progress-and-outcomes/metering-compliance-reports

Table 2: DPE Water metering compliance data October 2023[6]

In June 2020, DPE estimated coastal NSW had 6000 works that would need to comply by 1 December 2024[7]. With the metering reform roll-out expected to take a further 10 years[8], it is clear a significant amount of work must be done to overcome barriers to increase compliance rates across inland and coastal regions.

The National Water Initiative

The National Water Initiative (NWI) 2004 is a national framework agreed on by all Australian states and territories. It sets out 10 objectives across eight reform areas to achieve a nationally compatible market, regulatory and planning based system of managing water referencing the resources that optimised economic, social and environmental outcomes. Of note, jurisdictions agreed to work towards:

> *Information: 86. States and Territories agree to:*
>
> *i. improve the coordination of data collection and management systems to facilitate better sharing of this information;*
> *ii. develop partnerships in data collection and storage; and*
> *iii. identify best practice in data management systems for broad adoption.*
>
> *Metering and Measuring 87. The Parties agree that generally metering should be undertaken on a consistent basis in the following circumstances:*
>
> *i. for categories of entitlements identified in a water planning process as requiring metering;*
> *ii. where water access entitlements are traded;*
> *iii. in an area where there are disputes over the sharing of available water;*
> *iv. where new entitlements are issued; or*
> *v. where there is a community demand.*
>
> *88. Recognising that information available from metering needs to be practical, credible and reliable, the Parties agree to develop by 2006 and apply by 2007:*
>
> *i. a national meter specification;*

[6] Department of Planning and Environment (October 2023). 'Review of the non-urban metering framework – Issues and options paper.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0007/586492/review-of-num-framework-discussion-paper.pdf

[7] NSW Government (June 2020). 'Industry Guide – Works Requiring a Meter'. https://water.nsw.gov.au/__data/assets/pdf_file/0005/312773/faq-works-requiring-a-meter.pdf

[8] Department of Planning and Environment (October 2023). 'Review of the non-urban metering framework – Issues and options paper.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0007/586492/review-of-num-framework-discussion-paper.pdf

ii. *national meter standards specifying the installation of meters in conjunction with the meter specification; and*
iii. *national standards for ancillary data collection systems associated with meters.*

Reporting 89. The Parties agree to develop by mid-2005 and apply national guidelines by 2007 covering the application, scale, detail and frequency for open reporting addressing:
i. *metered water use and associated compliance and enforcement actions;*
ii. *trade outcomes;*
iii. *environmental water releases and management actions; and*
iv. *availability of water access entitlements against the rules for availability and use.*[9]

In the Irrigation Australia Limited (IAL) submission to the Productivity Commission's National Water Reform Inquiry, IAL calculated the percentage compliance of each state to the NWI. States were assessed on their compliance to several requirements, and their percentage compliance calculated:

National Framework Requirements	NSW	QLD	VIC	SA	ACT	TAS	NT	WA
Implementation of the national standard for meter construction, installation and maintenance (AS4747)	5	2 (1)	3 (1)	5	4 (1)	4 (1)	2 (1)	2 (1)
Use of a Certified Installer and Validator for installation	5	0 (2)	3 (2)	0 (1)	0 (2)	2 (2)	0 (2)	0 (2)
Use of a Certified Installer and Validator for validation	5	5	5	3 (2)	0 (3)	4 (3)	0 (3)	0 (3)
Any meter installed after 30 June 2010 must comply with the national metering standards as at July 2020	3 (1)	0 (3)	2 (3)	2 (3)	3 (4)	0 (4)	0 (4)	0 (4)
Any meter installed prior to 1 July 2010 shall be replaced with a compliant meter by 1 July 2020	0 (2)	0 (4)	2 (2)	0 (4)	0 (5)	0 (5)	0	0 (5)
Total score from 25	**18**	**7**	**15**	**12**	**7**	**10**	**2**	**2**
Percentage compliant	**72%**	**28%**	**60%**	**48%**	**28%**	**40%**	**8%**	**8%**

Table 3: IAL assessment and compliance scores for each state and territory[10]

[9] DCCEEW. 'Intergovernmental Agreement on a National Water Initiative'. https://www.dcceew.gov.au/sites/default/files/sitecollectiondocuments/water/Intergovernmental-Agreement-on-a-national-water-initiative.pdf

[10] Irrigation Australia. (August 2020). 'National Water Reform Inquiry.' https://www.pc.gov.au/__data/assets/pdf_file/0010/255259/sub003-water-reform-2020.pdf

Table 3 demonstrates the investment made by the NSW irrigation industry to implement this reform. Further analysis by IAL found that NSW have achieved full policy compliance in:

- Implementation of the national standard for meter construction, installation, and maintenance (AS4747).
- Use of a Certified Installer and Validator for installation.
- Use of a Certified Installer and Validator for validation.

While this review is important to ensure implementation of the new Metering Policy, and continued improvements, it must be considered in the context of the progress NSW has already made towards, and beyond, national metering standards.

It is important to recognise the support of the NSW irrigation industry to achieve 72% compliance against the NWI in 2020. With further investments in the reform by NSW farmers over the last three years, it is likely this percentage is now higher. This should be acknowledged by the NSW Government.

Recommendations to address metering compliance barriers

In collaboration with NSWIC member organisations, the following recommendations have been put together to provide guidance to the NSW Government for pathways towards improving metering compliance rates. While these recommendations represent a consensus view, some member organisations may have differing views on some details.

NSWIC notes that it is currently a very challenging period of time for the NSW irrigation industry and our communities, particularly with the Federal Government pursuing substantial legislative amendments to the Murray-Darling Basin Plan. NSWIC notes that many of our members have reported not having the time or resourcing to effectively engage in the Metering Policy consultation, due to exceptionally high-risk policy changes occurring concurrently elsewhere. NSWIC urges DPE not to take a lack of engagement as a sign of a lack of interest, and instead encourages further engagement following this period.

The NSW irrigation industry has invested significant resources, including finance and time, into the new Metering Policy. It is essential that this review finds practical and efficient methods for policy implementation, as opposed to back peddling on metering requirements.

1. Provide an automatic temporary exemption for known barriers

Almost all recognised barriers are beyond the control of water users. At present, the known barriers cause widespread technical-non-compliance, which presents highly skewed data on compliance rates, and causes water users significant stress and anxiety.

RECOMMENDATIONS

1) NSW Government provide a list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome (noting the Minister may revoke or amend the exemption at any time). These exemptions include, but are not limited to:
   a) Inconsistent metering conditions exemption
   b) Unavailable Duly Qualified Persons exemption
   c) Data Logger and Telemetry exemption
   d) Faulty Meter exemption

2) NSW Government provide a mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the DQP to formally register the

circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

This is intended as an interim measure while barriers are resolved.

2. Pathway to correctly nominate inactive works

CASE STUDY – Bega Valley inactive works on unregulated rivers

Across three unregulated water sources in the Bega Valley, a large number of water licences are not being used, however they have not been switched to inactive due to the associated administrative and practical costs. Data provided by the Bega Valley Water Users Association illustrates the high number of inactive works:

Candelo Creek	**Upper Bega/Bemboka River**	**Tantawanglo Creek**
21 Water Licences	**69 Water Licences**	**33 Water Licences**
4 active licences (63% licensed volume)	29 active licences (83% licensed volume) – 22 of these are government-owned	5 active licences (69% licensed volume)
17 inactive licences (37% licensed volume)	40 inactive licences (17% licensed volume)	28 inactive licences (31% licensed volume)

More information available in Appendix B.

Earlier tranches of the reform indicate that many works are not active, but are not registered as 'inactive' with WaterNSW. The metering consultation paper recognises this, suggesting that if exempted works were correctly identified, this would result in a reduction of 55% of works.

Incorrect status information skews compliance data (as inactive works are marked as non-compliant, when they just need to be registered as inactive). This is a problem shared by both the water user and the regulator, and is part of a broader issue of the WaterNSW register being out of date, and not fit for purpose. We understand that a key reason is the significant fees associated with notifying WaterNSW of inactive works.

NSWIC supports adopting a no-cost approach to updating the WaterNSW database, such as to mark a work as inactive, or notifying of a smaller work size than what is notified on the approval. These simple administrative tasks carry significant costs shown through 2023-24 application fees:

APPLICATION TYPE	FEE
New basic landholder right bore - groundwater assessment NOT required	$1,004.93
New basic landholder right bore - groundwater assessment required	$1,166.90
Amend approval (administrative) - make a work/s inactive or withdrawn inactive status	$603.50
Water Access Licence dealings – regulated rivers	$852.95
Water Access Licence dealings - unregulated rivers	$2,725.26
Water Access Licence dealings – groundwater	$5,589.27
Water Access Licence dealings – low risk, unregulated river and groundwater (e.g., remove a nominated work on a Water Access Licence)	$1,234.92
Dealings (administrative) – request a correction or amendment to the Water Access Licence Register	$545.49

Table 4: WaterNSW 2023-24 application fees[11]

Of note is the administrative cost of making works inactive or withdrawing an inactive status, which costs $603.50. This cost is prohibitive for smaller farmers across NSW who want to comply with the Metering Policy by changing the status of their work to inactive.

Furthermore, many water users have works that are inactive in practice for long periods of time, but the water users want the ability to switch this work back to being active in the future, so are hesitant about marking it as inactive. At present, this would require two rounds of large administrative fees in addition to complying with current 'inactive work' physical impediments requirements; the water user will need to demonstrate the work is physically incapable of taking water (e.g., pipes removed and pump disabled, or pipes are sealed shut and connected to a tamper proof device)[12].

Making a work inactive or returning to an active status becomes difficult to reverse, cost-prohibitive due to regulatory and physical labour requirements (further complicated by the lack of DQP's) and time-intensive. This increases water users concerns that once a work is marked as inactive, they may face challenges to switching it back to active, thereby losing their water access.

RECOMMENDATIONS

3) Provide a simple pathway for water users to correctly identify inactive works that are not used to take licensed water from a water source, or which only take water under a basic landholder right. The administrative process must be:
   a) Cost-free.

[11] WaterNSW. 'Applications and Fees.' [website]. https://www.waternsw.com.au/customer-services/water-licensing/applications-and-fees

[12] NSW Government. (November 2020) 'NSW Non-Urban Water Metering Policy.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0017/312335/nsw-non-urban-water-metering-policy.pdf

b) Easily reversible, subject to meeting the metering requirements at such a point in time as the work becomes active again.
c) Streamlined by removing inactive work physical impediments (i.e., so declaring a work as inactive replaces the need for physical impediments).
d) NRAR to hold the responsibility of performing inactive work surveillance to ensure compliance.

Remove inconsistent metering conditions on licences

The NSW Metering Guidance Tool notes several water supply works have an existing metering condition, including: MW0559-00001, MW2435-00001, MW2452-00001, MW3192-00001, MW3838-00001, MW7038-00001, MW7038-00002, MW7039-00001, MW7039-00002, MW7086-001, MW7086-0002, and MW7116-0001. The metering guidance tool notes that water users with these licence conditions are already required to comply with new metering requirements, regardless of the compliance deadlines presented by water agencies at community information sessions.

The overlapping metering requirements on licence conditions, Water Sharing Plans (WSPs) and the Metering Policy have led to confusion over what and when water users need to comply with. To improve compliance, all metering requirements should be captured under one policy instrument, the Metering Policy, to remove inconsistencies and water user confusion.

CASE STUDY: Condition MW2452-0001

Condition MW2452-0001 was implemented in 2018, requiring users to immediately comply with the Metering Policy introduced during changes in their water source Water Sharing Plans.

The MW2452-0001 condition states:

A. The metering equipment must accurately measure and record the flow of all water taken through the water supply work authorised by this approval,
B. The metering equipment must comply with the Australian Standard AS4747: 'Meters for nonurban supply', as may be updated from time to time,
C. The metering equipment must be sited and installed at a place in the pipe, channel or conduit between the water source and the first discharge outlet. There must be no flow of water into or out of the pipe, channel or conduit between the water source and the metering equipment, and
D. The metering equipment must be operated and maintained in a proper and efficient manner at all times.

According to the NSW Metering Guidance Tool, condition MW2452-0001 can be found on water supply work approvals located in Hunter and Richmond regulated river water sources. Despite the coastal NSW compliance date of 1 December 2024, affected water users "should already have metering equipment that complies with the non-urban metering rules"[13]. Also captured by this condition are smaller water users who, in the absence of this condition, would be exempt from the non-urban metering requirements.

[13] NSW Government. 'NSW Metering Guidance Tool". https://oeh.au1.qualtrics.com/jfe/form/SV_0IgAMS3MAhK606O

RECOMMENDATIONS

4) NSW Government to remove pre-existing specific metering conditions on licences, and instead refer to one instrument – the non-urban water Metering Policy. This includes a "to the extent of any inconsistency" clause to provide further assurances on this.

5) NSW Government to resolve all inconsistencies between licence conditions, Water Sharing Plan and the Non-Urban Water Metering Policy, particularly noting that under the current policy settings:
   a) water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded; and
   b) compliance date for coastal NSW is 1 December 2024.

3. Metering requirements that target risk

CASE STUDY – Smaller users on the Upper Namoi Groundwater water source

The Upper Namoi Ground Water Source (zones 1-12) are listed as at-risk groundwater sources. They are categorised as at-risk due to being over allocated. Consequently, all bores must have a meter, regardless of their size (unless only taking water for BLR)[14].

There are a significant number of smaller water users with pump size smaller than 100mm and an entitlement of less than 20ML, that are unable to access the metering exemption due to their location on this at-risk water source. The question remains of how much risk these water users pose to the sustainable yield of the aquifer, particularly when considering water sharing plan rules and the use of available water determinations to ensure compliance with the long-term average annual extraction limit (LTAAEL).

Water users have different risk profiles based on the size of a groundwater or surface water pump, the number of works on a property, water access licence volume, frequency and nature of use, and the type and status of the water source.

NSWIC agrees that the current rules do not meet the Metering Policy objectives to:

- minimise undue costs on smaller water users; and,
- metering requirements are practical and can be implemented effectively.

NSWIC welcomes the clarification of the objectives of the Metering Policy through the metering consultation paper.

Currently, smaller water users present a low risk to their water sources. However, they are still expected to purchase the same metering equipment as larger, higher-risk water users (see table 5 for meter prices). This requirement threatens the financial viability of small farms, demonstrating the requirements are not practical nor consistent with the Metering Policy.

Model	Size	Price (Per unit)	Model	Size	Price (Per unit)
NETAFIM WOLTMAN TURBO WATER METER – WST FLANGED	50mm	$1,182.00	SIEMENS MAG8000 REMOTE 10M WITH NMI	DN50 (2”)	$3,901.80
	65mm	$1,558.00		DN100 (4”)	$3,977.30
	80mm	$1,392.00		DN150 (6”)	$4,385.30
	100mm	$1,511.00		DN200 (6”)	$4,717.30

[14] WaterNSW. (November 2022). ‘At-risk groundwater sources.’ https://www.waternsw.com.au/__data/assets/pdf_file/0010/171289/Metering-fact-sheet-At-risk-groundwater-sources-091122.pdf

	150mm	$2,702.00		DN250 (10")	$5,214.30
	200mm	$3,312.00		DN300 (10")	$6,418.80
	250mm	$5,993.00	SIEMENS MAG5100W WITH MAG6000CT, REMOTE 10M	DN50 (2")	$2,948.80
	300mm	$6,794.00		DN100 (4")	$3,032.80
NETAFIM OCTAVE ULTRASONIC WATER METER	Octave 2" SST Flanged *without pulse module	$3,438.00		DN150 (6")	$3,473.30
	Octave 3" SST Flanged *without pulse module	$3,936.00		DN200 (8")	$3,834.30
	Octave 4" SST Flanged *without pulse module	$4,483.00		DN250 (10")	$4,368.80
	Octave 6" SST Flanged *without pulse module	$6,733.00		DN300 (12")	$5,675.30
	Octave 8" SST Flanged *without pulse module	$7,632.00			
	Octave 10" SST Flanged *without pulse module	$9,820.00			
	Octave 12" SST Flanged *without pulse module	$10,906.00			
	Open drain pulse output	$300.00			

Table 5: Netafim meter prices (as of 4 October 2023) and Siemens meter prices (as of 9 October 2023)

The work size-based framework is a foundational principal of the Metering Policy. With the policy now in its fifth year of implementation, there has been significant investment of time, finances and labour to comply with this framework by water users of all entitlement sizes across the state. Considering this, NSWIC:

- Supports further consultation to ensure the practical and enduring implementation of the work size-based framework.
- Opposes the change to a volume-based framework, as this will perpetuate inequity for water users who have invested into the requirements of the current policy.
- Opposes the change to a flexible catchment-based approach, as this will suggest a non-standardised approach to a state-wide policy which may cause confusion and attract criticism.
- Supports all water users with pumps under 100mm in size or groundwater bores with an external diameter bore casing less than 200mm exempted from the Metering Policy, regardless of licence conditions.

Further evidence warning against adoption of the volume-based framework is the recent return of coastal harvestable rights from 30% back to 10%, the result of a lack of extraction data in coastal catchments in NSW[15].

[15] Department of Planning and Environment. 'Sustainable water extraction in coastal catchments.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0007/583342/Sustainable-extraction-in-coastal-catchments-fact-sheet.pdf

This calls into question whether the Government has effective data management, particularly along the coast, to calculate sustainable levels of extraction. This data is required to effectively implement a volume-based framework.

Less prescriptive metering standards form smaller and low risk water users

An Industry Guide developed in June 2020 calculated the following number of works in each region of NSW:

Surface water			Groundwater		
Work size (mm)	**Inland NSW**	**Coastal NSW**	**Work size (mm)**	**Inland NSW**	**Coastal NSW**
0-49	42	42	**<50**	332	360
50-99	411	572	**50-99**	35	1
100-149	2,453	2,280	**100-199**	1,362	53
150-199	1,152	295	**200-299**	2,064	785
200-249	675	79	**300-399**	1,546	123
250-299	626	23	**400-499**	656	31
300-349	880	30	**500-599**	343	4
350-399	408	9	**600-699**	125	8
400-449	503	5	**700-799**	52	6
450-499	121	3	**800-899**	23	0
			900-999	111	22
			1,000-1,199	159	71
			>=1,200	683	934
			Excavations	217	259
Total	**7,271**	**3,338**	**Total**	**7,708**	**2,663**

Table 6: Estimated number of works requiring a meter in NSW from June 2020[16]

While Tranche 1, 2 and 3 have passed their compliance date, 6000 works in coastal NSW will need to be compliant by the Tranche 4 deadline of 1 December 2024. Both inland and coastal regions have a notable number of works (estimated 1795) that fall under the 100mm work size-based threshold.

Definitions for 'low risk' and 'smaller' water users have not been provided. For clarity, we will define them as:

- Low risk – water users that are not drawing from an at-risk water source.
- Smaller water users – water user that has a pump less than 100 mm in diameter or a groundwater bore with an external diameter bore casing less than 200mm.

In addition to water users that fall under the work size-based framework, there are several exemptions from the non-urban metering rules under current policy settings. These include:

- Works used solely to take water under a basic landholder right (BLR).

- Works that have been made inactive.
- Works that cannot physically comply with the non-urban metering rules.
- Works that are not nominated against a water access licence.
- Small, low risk works used to take water under a domestic and stock water access licence (lapses 1 December 2024).
- Works located in a telemetry blackspot.
- Notification of smaller works.

The current exemptions remove metering compliance requirements for inactive works, works used solely for BLR, and works that are smaller than their works approval and fall under the size threshold. A temporary exemption has been provided for smaller and low-risk water users that solely take water under stock and domestic water access licence, however this will lapse on 1 December 2024 and will be reviewed during this metering review process.[17]

While these exemptions make some effort to ease compliance requirements, more can be done. As acknowledged in the metering consultation paper, "*work size is not always the best indicator of actual take or risk, such as when a small pump is used continuously, or a large pump is only used intermittently.*"

This acknowledgement merits the consideration of a volume-based framework, specifically in the coastal region who have not yet reached their compliance date. However, further analysis into the practical application and impact of the volume-based framework is essential before any decisions are made, with this work also recognising the investment into the work size-based framework made by coastal water users.

To accelerate compliance in low-risk and at-risk water sources, a preliminary consideration could be the introduction of an opt-in exemption for "low volume water users"; an exemption for water users that fall under a specific average annual usage and therefore represent a lower risk to their water source.

To qualify for this exemption, a low volume water user would need to provide evidence of their last five years of water usage through a logbook (e.g., WaterNSW CI 250 annual recording form)[18], online on iWAS or other acceptable methods. If their average annual water usage over the five-year period is less than a specific volume (e.g., 10ML[19]) they would qualify for the exemption.

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[17] NSW Government. 'Exemption for small stock and domestic water access licence holders.'[website]. https://water.dpie.nsw.gov.au/nsw-non-urban-water-metering/latest-information/updates/exemption-for-small-stock-and-domestic-water-access-licence-holders

[18] WaterNSW. 'CI 250 annual recording form.' https://www.waternsw.com.au/__data/assets/pdf_file/0009/217692/CI-250-annual-recording-form..pdf

[19] 10ML used as an example due to its use as an indicative volume in the metering consultation paper – the DPE would need to provide research underpinning why a specific volume is selected.

Consequently, the measurement standard would fall under the proposed volume-based framework[20]:

- No meter is mandated, but trading is prohibited without a measuring device (subject to the Access Licence Dealing Principles Order 2024).

Recording and reporting compliance requirements would align with that of "all non-metered works"[21]:

- Record water usage each month in a logbook, online on iWAS or other acceptable method.
- Report licensed (and BLR water) usage within 28 days of the end of the water year.

An exemption such as this could provide a pathway for all licensed water take to be measured and reported; for most water take to be metered (<95% of total licensed entitlement); and for measurement requirements to reflect risk to water sources while offering lower-cost options for lower risk low volume water users.

An exemption built on these principles would be of particular benefit for coastal water users. DPE notes that in "East of the Great Dividing Range, the terrain is steeper, and the climate is generally wetter with faster flowing rivers that run east to the ocean (short, high gradient coastal streams)[6]". Unregulated water sources are more common on the coast and subject to fewer water management activities, aside from cease-to-pump events.

Coastal water users have different risk profiles and water use patterns; many farmers exclusively pump water when it is dry. This intermittent usage of supplementary flows may mean a water user only pumps for a few months every couple of years, meaning coastal NSW is characterised by water users that often have dozer or sleeper licences. It is also common for coastal water users to have multiple small pumps that operate infrequently, and pump low volumes of water.

RECOMMENDATIONS

6) Review the exemption under the work size-based framework. Currently the framework states that water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded. NSWIC suggests:
   a) Groundwater bore measurement should be 100mm consistent with surface water pumps, with the measurement point being the diameter of the outlet.
   b) Groundwater wells to be eligible for the same exemption as groundwater bores – noting that it is the size of the pump within the well that affects water uptake.

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[20] Department of Planning and Environment (October 2023). 'Review of the non-urban metering framework - Issues and options paper.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0007/586492/review-of-num-framework-discussion-paper.pdf

[21] WaterNSW. 'Recording and Reporting.' [website]. https://www.waternsw.com.au/customer-services/metering/recording-and-reporting

7) Continue requirement for DQP certification of AS4747 meters - NSWIC does not support removing this requirement due to the risk of damaging the irrigation industry's reputation and the integrity of the reform.

8) Permanently implement the "small, low risk works used solely to take water under a stock and domestic water access licence" exemption (lapses on 1 December 2024).

9) Further consultation with industry on the introduction of a "low volume water user" opt-in exemption, or alternative strategies, to provide less costly options for low volume water users.

10) A further 12-month extension to 1 December 2025 (at minimum) for coastal compliance to address:
    i) Concerns that the current coastal compliance deadline of 1 December 2024 is not sufficient time to effectively implement and react to proposed regulatory changes as part of the metering review.
    ii) Address DQP shortages in coastal catchments.
    iii) Drought conditions predicted to affect coastal catchments throughout 2023-24, which may hinder in-situ meter testing and impact farm productivity and income.
    iv) Implement an effective education strategy engaging all coastal water users on their water use requirements including water ordering, measurement, recording and reporting.

11) Practical and simple reporting requirements - water users to submit a monthly statement on the months they take water using a work. If a statement is not submitted, WaterNSW to recognise that the work was not used to take water that month. This streamlines data collection and removes the administrative burden on time-poor farmers, many of whom only pump when required (e.g., dry conditions).

4. Revisit meter installation and certification requirements

CASE STUDY: Shortage of Duly Qualified Persons

In response to a survey run by Murrumbidgee Groundwater Inc and Murrumbidgee Private Irrigators Inc, a member provided the following responses:

1. Have you personally experienced any challenges or difficulties when complying with the non-urban water metering framework? If yes, please describe the challenges you have encountered.
"We have faced enormous challenges finding a DQP to install our meter on our irrigation bore. To date we have been in discussions with 6 DQPs regarding our meter installation. All have taken our details and discussed the work both over the phone and email, however they have either contacted us to say ultimately, they are too busy to do the job, and passed us on to another person, or simply not returned phone calls or followed up as promised.

"It has been left to us to chase all of the installers to try and get a contract of service in place. We still have not been successful. One of the DQPs we engaged with at length (who ultimately said they couldn't do the job) stated that it is just not worth the DQP's time in the paperwork they need to complete on their end with WaterNSW to justify doing the job.

"They have basically closed their books as there are too many meters to install and they don't have the capacity to complete the regulatory work on their end to have any kind of ROI for their businesses."

2. Do you believe there are significant barriers to implementing the non-urban water metering rules? If so, please specify the most significant ones applicable to you?
"The primary barrier to us complying with the rules is finding a DQP to install and sign off on our meter. We have a meter and want to comply, but completing the task is out of our hands and it has taken more time and effort than it should have to complete the task. It is completely unreasonable to expect irrigators to call and chase more than 6 separate DQP's to complete a simple meter installation.

"The NSW Government needs to resource WaterNSW to supply and install the required meters with telemetry as the system as it currently stands is failing those with the most to lose - the farmers. None of the DQPs who have committed to installing our meter and fail to follow through face prosecution from NRAR - only us.

"The system to log and record take through WaterNSW must be much more user friendly as well and the Customer Dashboard being developed must be completed as a matter of urgency and include an easy-to-use reporting function."

A Duly Qualified Persons (herein DQP) is trained with qualifications from Irrigation Australia Limited (IAL) to carry out metering work such as installing, validation, certification, and maintenance. Figure 3 shows the locations of current DQPs across NSW as listed on IAL on 04/08/2023:

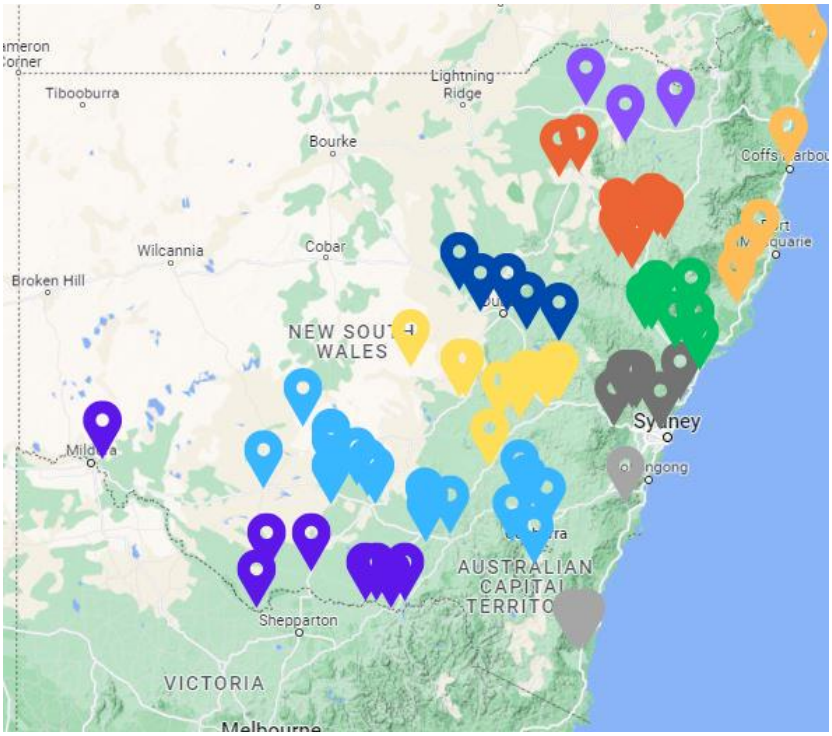


Figure 2: Map of DQP Locations Across NSW as of 4 August 2023

The IGWC Metering Report Card stated that the number of DQPs in NSW had increased to 175 in the period 2021-22. However, it was also noted that: *"the actual number of active and available CMIs in NSW (known as DQPs in NSW) is significantly lower than this number and is a significant risk to Metering Policy implementation in NSW... the number of CMIs available will be vital for ensuring their metering reform goals are met*[22]*."*

This comment is consistent with the experience of NSW irrigators, who have expressed concern over the decline in available DQPs. In the 2021 NSWIC Barriers to Metering Compliance report, 76 DQPs in NSW were contacted. Of those contacted, 44 remain listed on the IAL website in August 2023, suggesting that within the two years, 42% of DQPs had stepped out of the role. This calls into question whether this form of business is financially viable and rewarding in the long term for the private sector.

The metering consultation paper acknowledges the DQP shortage, highlighting there are not enough active DQPs to install the meters required. Three key reasons given for this shortage:

- High administrative workload (DQP portal not fit for purpose), and burden of regulatory risk.

[22] Inspector General of Water Compliance. 'Murray-Darling Bason – Metering and Measurement Report Card'. https://www.igwc.gov.au/sites/default/files/2023-07/igwc-metering-report-card-2021-22.pdf

- Labour and workforce issues in regional areas.
- Geographical disconnection between DQPs and water users.

In addition to these barriers, water users and DQPs have also noted these concerns:

- The high cost and time commitment required by individuals and/or businesses to do the training with IAL (estimated to be $3000);
- DQPs employed by a particular farm/business who are not available to service the wider community;
- Loss of investment and expertise when trained individuals and/or staff change employment;
- Businesses prioritise other paid services (e.g., welding, fabricating, or engineering);
- A lack of financial incentive that makes it not worthwhile;
- DQP difficulty in achieving IAL requirements for annual accreditation (e.g., minimum number of validations performed per year);
- Heavy workload, physically and administratively, to be completed for each installation and certification;
- Lack of local DQPs increases demand on remaining DQPs;
- Lack of DQP training for certain practical skills (e.g., portable meters, in-situ testing methods);
- DQP portal is not fit for purpose making administrative work harder;
- The infancy of the Metering and Measurement Marketplace; and,
- There is only one institution providing training to become a DQP which may bottleneck the market.

In-situ testing affected by drought conditions

A further issue for DQPs is performing in-situ testing. In-situ accuracy testing ensures a meter is operating within ±5%. It is required when a water user wishes to use a water meter that is not pattern-approved, and during the 5-year recertification process performed by a DQP[23].

During the critical implementation phase for Tranche 1, in-situ testing could not occur due to severe drought. This prevented progression towards compliance, or at least caused significant delays until water was available for testing to take place.

With the declaration of El Nino conditions returning at the end of 2023, it is likely similar conditions will affect water users in Tranche 4 seeking to become compliant or Tranche 1 water users engaging in recertification activities throughout 2024.

[23] Department of Planning and Environment. (2019). 'Maintenance Specifications 2019.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0015/312360/Maintenance-Specifications-Gvt-Gazette-No-27-Friday-29-March-2019.pdf

In-situ accuracy testing is currently outside the scope of the national metering standards, DQPs are unable or unwilling to undertake the testing[24] and it requires services and resources that the NSW government cannot currently provide. For these reasons, NSWIC supports the Department's suggestion to revisit the requirement for in-situ accuracy testing.

DPQs are required for initial installation and certification, and meter recertification every five years; it is essential that the number of DQPs available can meet demand. Despite Government reassurances that the private market will meet demand, this has not occurred. If not addressed, this market failure will result in policy failure.

RECOMMENDATIONS:

The Department has put forward several possible responses for consideration:

12) NSWIC supports Government coordination of DQP services to match supply with demand.
    i) The Government should assume responsibility for DQPs as this appropriately shifts the onus onto Government to deliver its reform.
    ii) This is preferred to alternative options, such as removing the DQP requirement or enabling the water user to self-certify, as these are seen as watering down the reform and undermining its integrity.
    iii) Existing agencies such as WaterNSW could take on this responsibility. If this were to occur, the Government must appropriately resource and fund a public-sector service to deliver its reform, to avoid repeating past mistakes of where farmers were paying for services and compliance that agencies failed to deliver.
    iv) While supported, the Government assuming responsibility for DQPs is considered only a part of the solution.

13) NSWIC supports more support services for DQPs, specifically that streamline administrative tasks.

14) NSWIC supports the Government identifying areas of high demand and coordinating DQP services to match the need. However, we oppose this occurring on a fee-for-service basis.

15) NSWIC supports expanding the DQP workforce by amending the rules and training skilled workers via a short course.
    a) This initiative will not address worker shortages experienced in regional NSW. If within the private sector, adequate financial incentive for these services will be imperative. At present, many service

[24] Department of Planning and Environment (October 2023). 'Review of the non-urban metering framework - Issues and options paper.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0007/586492/review-of-num-framework-discussion-paper.pdf

providers – such as engineers, surveyors, electricians, etc. – are in high demand and can profit more from their standard business services than DQP services.

16) NSWIC opposes less prescriptive installation pathways for closed conduit meters. Due to the ongoing barrier of DQP accessibility and negative public perception that water users watering down the reform.

17) NSWIC supports the Department's desire to review the requirement for in-situ accuracy testing which is not mandated under the national metering standards and not achievable with current DQP availability.

NSWIC does not support the use of fee-for-service models or increasing the cost under WAMC to address the shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the Government needs to fund the appropriate level of service, which has not been provided in previous price-determination periods.

It is also noted that this reform is in part the result of inadequate service delivery by Government previously, in terms of metering and compliance, despite charging water users for these services. It is the Government's responsibility to rectify this poor service delivery and cover the costs of doing so.

5. Revisit management of telemetry systems

CASE STUDY: Mobile Coverage Outages

Several water users in the Namoi Valley report that they have experienced service outages from Telstra. When the outage occurred, they received a message from the telemetered groundwater bore meter saying, "transmission failure". Consequently, they submitted a s91i form, and were notified to do manual reads, and that a DQP must attend within 21 days. However, when the Telstra service returned, a notification was sent out stating, "source record is up to date".

A water user requested advice from NRAR to clarify if the system had 'self-reset" or similar, and no longer required a DQP to attend nor submission of a s91i. If required, the DQP would be very expensive, traveling close to 300KM for the round trip, and would be unavailable to attend the site for several weeks.

The water user tried contacting NRAR seven times on the advertised phone number with no success. They emailed the NRAR enquiries address with their query on 23 August, and waited until 8 September, over two weeks, to get a response. The message stated:

"I have consulted a Compliance Officer and they have accessed the relevant information in the DQP portal. Information indicates that telemetry is now logging and therefore a DQP is only required at the discretion of the licence holder."

Due to the frequency of these coverage outage events, the local industry group suggests that their members submit a 91i on receipt of the "transmission failure" message and submit a s91i completion form after the message of the "source record is up to date" is received. It is suggested that water users also perform manual meter readings and request the services of a DQP to recertify the meter. This is an onerous and expensive administrative burden for water users for a barrier beyond their control.

CASE STUDY: Reprogramming LIDs

Water users in Northern Inland (Tranche 2) report the need to replace their meters. While the existing LID is still functional, it must be sent off to be reprogrammed before it can be used with the new meter. The process of reprogramming the LID has a 7–12-day turnaround, which results in two visits to the site by a DQP. Water users wonder if it is possible to reprogram the LID onsite.

As an alternative option, the water user could pay an additional $1400 for a new LID to be installed with the meter at the same time.

CASE STUDY: DAS Other Telemetry Device option

A private irrigation infrastructure operator (IIO) in the Murray reports having difficulties with its application for an 'equivalent' telemetry system, which would allow them to continue using their current telemetry system and avoid purchasing and installing new LIDs.

The proposal was submitted in July 2021. Despite multiple DPE meetings and amending the proposal to add more information, a resolution has still not been found. They continue to wait for a solution almost 2.5 years later.

The IIO does not want to waste any more time and wants clarity on what to do, even if it means purchasing multiple new LID's. They suggest that the Other Telemetry Device option process should be streamlined with clear expectations (including cyber security requirements) and timely approval/rejection.

Under current policy settings, all surface and groundwater works captured by the Metering Policy need to be fitted with an accurate meter and a Local Intelligence Device (LID) with capabilities to transmit meter data to the Government via telemetry. Water users with surface water works, except pumps less than 200mm, need to transmit data via telemetry to the Data Acquisition Service (DAS). Other water users can use the LID as a data logger only, with the data downloaded annually by an authorised person[25].

Telemetry requirements were promoted to users throughout early consultation process and policy as providing user and operations benefits. For example, the Metering Policy indicates that data collected by the DAS, and through manual recording and reporting, will assist NRAR, WaterNSW and DPE to undertake compliance and enforcement, billing and other water management activities, and support water users and the river operators in managing water resources across NSW.[26]

The metering consultation paper notes that the installation of data loggers and telemetry are typically where delays are experienced, often due to the following reasons:

- Data logger in-field installation issues e.g., battery life degradation.
- Lack of prescription for meter and data logger combinations affecting performance and data quality.
- Challenges with the installation, configuration and connection of data loggers and telemetry, leading to incorrect installation and poor data quality (if any).
- Poor data output of telemetry systems, requiring further investment of resources to correct.

[25] NSW Government. (November 2020). 'NSW Non-Urban Water Metering Policy.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0017/312335/nsw-non-urban-water-metering-policy.pdf

[26] NSW Government. (November 2020). 'NSW Non-Urban Water Metering Policy.' https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0017/312335/nsw-non-urban-water-metering-policy.pdf

- Lacking ability to integrate with other established telemetry systems (excluded due to data and cyber security requirements), imposing additional costs on water users.
- Device specifications prevent in-situ configuration.

In addition to the barriers above, water users also note:

Mobile connectivity blackspots and coverage outages are a consistent issue, preventing the transmission of data from pump sites. Telstra is upgrading mobile coverage from 4G to 5G, causing concern about teething issues as the system is established, and an increased frequency of outages. This connectivity deficiency prohibits water users from being fully compliant with the Metering Policy and requires the submission of an s91i form each time an outage occurs. These events can occur multiple times a day, placing an administrative burden on time-poor water users who have no control over these systems.

The loss of institutional WaterNSW institutional knowledge due to the recent organisational restructuring, resulting in the allocation of new staff with minimal experience in water management activities. Water users report that they were consulted on the development of the DAS portal, however, this feedback was lost throughout the restructure. Consequently, the DAS has user-unfriendly design, unclear, undefined, and irrelevant measurements that do not assist water users manage their water usage effectively.

Lack of communication between the DAS and Water Accounting System. In 2021, WaterNSW advised that the DAS has not been configured for real time access by WaterNSW to allow for more efficient river operations, nor it is connected to the accounting system iWAS and there is no timeline for implementation.

All barriers listed above prevent water users from experiencing the benefits of telemetry. These barriers often take multiple DQP visits to resolve, which prolongs the compliance journey. Issues continue to inhibit the effective installation and implementation of this telemetry, causing many irrigators to be non-compliant through no fault of their own.

In response to these failings, NSWIC calls for the NSW Government to take over responsibility for the purchase, installation, certification, management and data collection of telemetry systems.

RECOMMENDATIONS

The Department has put forward several possible responses for consideration:

18) NSWIC does not support the review of the Data Logging and Telemetry Specifications 2021. There is currently enough information to inform the decision to decouple telemetry from the metering reform. The specifications could be revisited when a data loggers and telemetry implementation framework is developed.

19) NSWIC supports the decoupling of data loggers and telemetry from meter installation requirements. This will:
    a) increase metering compliance;
    b) permit time for the DAS to be operational and receive data properly;
    c) ensures the selected telemetry equipment can meet cyber security requirements (many pre-installed telemetry units cannot connect to the system for this reason); and
    d) allow for development of a practical strategy for data loggers and telemetry to ensure compliance can be achieved practically before deadlines are set.

20) NSWIC supports the Government assuming responsibility for telemetry systems. The single source of truth for water users is their water meter. The Government should accept the additional responsibility to transmit water extraction data from a meter to Government. This would include Government coordination and bulk procurement, installation, maintenance, and ownership of all data-loggers and telemetry systems (unless the water users opts-out and selects private ownership).

21) NSWIC supports the Government providing recommended data loggers and meters combinations for optimal functionality. The cost of these combinations must be taken into consideration for water users and businesses of all sizes.

6. Revisit overland flow measurement pathways

CASE STUDY: Floodplain Harvesting Metering

To comply with floodplain harvesting measurement rules, specific primary metering equipment must be installed. A northern Basin farmer chose to undertake the storage measurement method and engaged a Certified Storage Meter Validator (CSV), for this task.

The farmer actively communicated with WaterNSW and DPE about the difficulties they encountered while installing the metering equipment. For example, the length of time to perform and analyse data to establish a survey curve extended beyond what was expected. The CSV required 90+ minutes to set up and gather required data from one corner of the storage, resulting in over six hours of work required to get data (not including analysis) for a storage curve.

While DPE spatial services were engaged to assist develop methods to help the surveyors perform the required actions to establish a storage curve, many issues are yet to be addressed. As several storages are included in one work approval, if one storage is not compliant, the work is not compliant.

CASE STUDY: Use of Secondary Devices

A farmer in the northern Basin reports significant issues with mobile connectivity of approved telemetry options across their primary and secondary properties.

On their primary property, three Mace meters and LIDs were installed to meet the timeline for their region. Despite this installation, the farmer is unsure if the LID is working correctly, as this data is not accessible through DAS or iWAS.

They also have several on-farm storages at their primary farm. One storage has a Government-funded primary and secondary gauge board, with an additional Goanna secondary device installed. CMI surveyors have deemed this storage to be compliant. However, the remaining storages only have Goanna secondary devices installed and are awaiting completion of surveying to finalise the installation of primary devices.

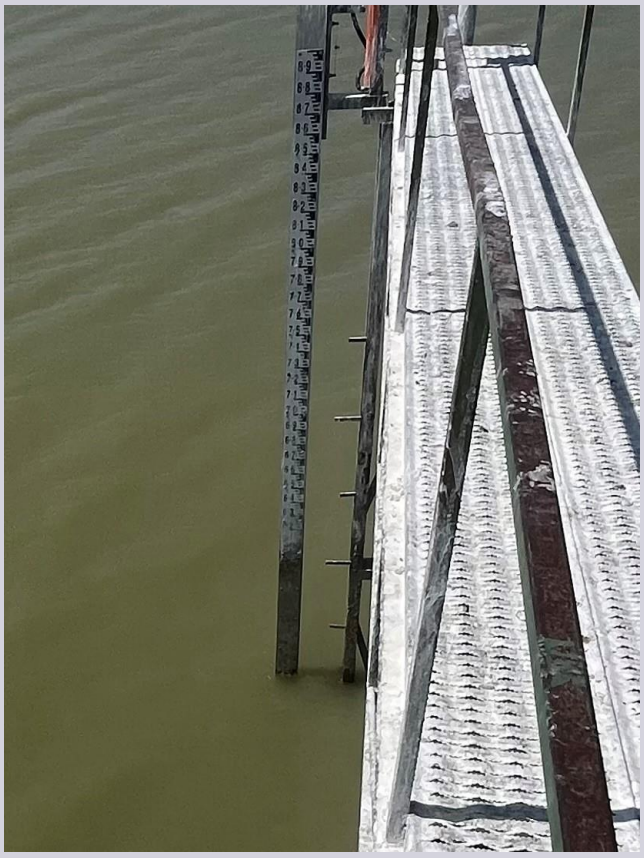
Similarly on the secondary property, the LIDs are deemed as non-compliant due to ongoing data connectivity issues based on location. Additionally, the on-farm storages only have Goanna secondary devices installed, which report dam volumes several times an hour on the private Goanna connectivity system. The CMI surveyors are continuing to do their work before installing the primary metering devices that are currently being ordered in.

Despite undertaking work and installing equipment to meet regulation, this water user remains non-compliant through no fault of their own and is at NRAR's discretion as to whether regulatory action is taken.

CASE STUDY: Unsuitable Gauge Boards

A farmer in the Northern Basin paid $7000 for the installation of a gauge board. After 6 months of use they took the following picture, showing that the lower height markers had been washed off.

While this temporary solution had been requested as an option by water users and is designed to be a back-up, this demonstrates that the materials regulated for this interim solution have not been fit for purpose. In comparison, wooden painted gauge boards have been reported to work on farms for extended periods of time.



Water users who receive a floodplain harvesting access licence must install metering equipment under Clause 238B of Water Management (General) Regulation (2018). The primary telemetered metering equipment must be installed within 12 months from the first time their floodplain harvesting access licence is credited and is to be placed either on storages used for floodplain harvesting, or at the point where water is taken.

Floodplain harvesting compliance deadlines are being rolled out across several northern Inland catchments:

Valley	**Licensing framework commenced (secondary metering required at minimum)**	**Compliance date (primary metering equipment required)**
Gwydir	15 August 2022	15 August 2023
Border Rivers	15 August 2022	15 August 2023
Macquarie	1 March 2023	1 March 2024
Barwon Darling	1 April 2023	1 April 2024
Namoi	To be determined	To be determined

Table 7: Compliance dates for floodplain harvesting[27]

There are significantly more barriers to compliance than those listed in the metering consultation paper. The policy development for measuring overland flow and floodplain harvesting in unregulated and regulated river systems is impractical and entitlement holders are facing significant barriers to meet compliance requirements.

NSWIC appreciates the open active interaction with WaterNSW and DPE to find solutions to these problems, but progress is exceedingly slow and more resourcing needs to be allocated to address problems, including:

- The timeframes for full compliance with primary storage meters are too short;
- The shortage of DQPs prepared to install storage meters;
- The shortage of primary storage meters;
- Unfit for purpose configuration and linkages of storage curves to storage meters and the DAS;
- Telemetry connection issues preventing connection to DAS;
- The lack of resources allocated to WaterNSW to upgrade the DAS to a system more able to meet the needs of DQPs and entitlement holders. (NB: Water users appreciate WaterNSW has made improvements to the DQP portal and is working hard to continue to improve the system);
- Current policy preventing irrigation during Floodplain Harvesting events;
- Inability to measure water taken from the storage via a different outlet to the one used to take Floodplain Harvesting entitlement; and
- Unfit for purpose government-installed secondary devices (e.g., gauge board markings wash off easily, or are unreadable preventing measurement readings).

[27] Natural Resources Access Regulator. 'Floodplain harvesting.' [website]. *https://www.nrar.nsw.gov.au/how-to-comply/floodplain-harvesting*

RECOMMENDATIONS

22) NSWIC opposes the proposal to exempt water users taking overland flow under an unregulated access licence from metering requirements. This would feed into further negative public perceptions, would lack political support for regulatory change, and does not work towards an enduring solution.

23) Revisit the Floodplain Harvesting measurement policy to ensure it is effective practically – (e.g., revise the timeframes for FPH implementation, accounting for the time required for the current market failure to respond to demand).

24) Improve private and government-installed secondary devices that are not fit for purpose (e.g., gauge board height markings).

25) NSWIC proposes that entitlement holders should be permitted to take Floodplain Harvested or overland flow water with approved, certified secondary meters until such time that the following barriers are addressed:
    a) The shortage of DQPs prepared to install storage meters.
    b) The availability of primary storage meters is improved.
    c) The configuration and linkages of storage curves to storage meters and the DAS is streamlined so users can readily access data to enable them to be compliant.
    d) Sufficient resources are allocated to WaterNSW to upgrade the DAS system to be fit for purpose for DQPs and water users.
    e) Surveyors can utilize the newly approved improvements to survey requirements.

26) Continue water user consultation to find a solution to policy failures, such as:
    a) Enabling users to identify a specific Local Intelligent Device (LID) in a storage within a works approval to take Floodplain Harvested water while still irrigating from other storages within a works approval, without the requirement to subdivide the works approval; or
    b) The measurement of water taken from the storage via a different outlet to the one used to take Floodplain Harvesting entitlement.

7. Improve practical reporting processes: General water usage reporting

The metering reform included an updated requirement for recording and reporting water take, depending on the standard of metering equipment installed:

	Record and report requirements		
	Licensed water take	**Water take under BLR or licence exemption**	**Confirm water taken according to conditions**
Unmetered works	Record – within 24 hours Report – Annually within 28 days of end of water year	Record – within 24 hours Report – Annually within 28 days of end of water year	Record – within 24 hours Report – Annually within 28 days of end of water year
Metered works without telemetry	Record – automatic by LID Report – each month	Record – within 24 hours Report – each month	Record – within 24 hours Report – Not required
Metered works that take BLR	Record – automatic by LID Report – automatic by LID	Record – within 24 hours Report – within 14 days after each month	Record - within 24 hours Report – Not required

Table 8: Summary of recording and reporting requirements for non-urban metering reform[28]

There are several barriers that affect compliance with recording and reporting requirements:

- The iWAS platform – Water users appreciate the ongoing improvements made to iWAS, noting that when familiar with the platform it provides a helpful way to order water, record water take, and review water usage patterns. Issues remain, including:
    - Mobile connectivity outages preventing access to iWAS;
    - iWAS platform outages preventing the timely recording of water usage data;
    - Navigation difficulties, particularly when checking multiple works approvals, water sources and/or pump sites, entering multiple meters readings (requires all readings to be entered at once), or amending a reading if an error is made (requires customer to contact WaterNSW customer service centre).
- Lack of clear communication about water recording and reporting requirements;
    - Minimal communication about WaterNSW customer forms such as the no-meter CI250 annual reporting form – many water users do not know this form exists;
    - Most information is presented on water agency websites or online newsletters – not all water users know how to subscribe, find, or use these resources;
    - A lack of in-person WaterNSW staff in regional areas;
    - Poor response times via phone and email to customer inquiries.

[28] NSW Government. 'What water users need to know.' [website].https://water.dpie.nsw.gov.au/nsw-non-urban-water-metering/what-water-users-need-to-know

RECOMMENDATIONS

27) Develop a clear education strategy (encompassing in-person, print and online resources) for water usage reporting expectations, particularly for smaller and coastal water users. This could include resources on water ordering, recording, and reporting via logbook and iWAS.

28) WaterNSW to send out a monthly and/or annual automated message (water users to nominate for email, letter, or text) prompting water users to record their water use. Include the due date (if applicable), a link to iWAS (online) or a logbook (physical). This requires an up-to-date database of customer details as well as correct licence information on the Water Access Licence Register.

29) Development of an iWAS app for improved access on mobile phones – water users can input meter readings while in the field. This prevents double handling data of data; once in the field, then again when entering data into iWAS on a desktop computer.

30) Practical and simple reporting requirements - water users required to submit a monthly statement on the months they take water using a work. If a statement is not submitted, WaterNSW to recognise that the work was not used to take water that month. This streamlines data collection and removes the administrative burden on time-poor farmers, many of whom only pump when required (e.g., dry conditions).

31) We do not support any attestation/confirmation of data submitted by telemetry, as this form of data reporting is out of the control of water users.

8. Improve practical reporting processes: Faulty meters

CASE STUDY: Northern Inland faulty meters

A northern inland farmer has reported several issues that have caused their meters to malfunction, including insects in the meter, bird damage to cables, vibration damage, and heat damage from the sun.

While some issues could have been resolved by the farmer, the use of tamper proof seals meant they were unable to perform the needed work (e.g., cleaning) without contacting a DQP. The farmer also reported that previous meters were more robust and if a problem was encountered it could be fixed by the farmer.

CASE STUDY: Faulty meters in coastal areas

A South Coast water user reported that their 8" Netafim meter developed a crack in the screen, stopping the digital display from working, after 3 years of service. All other parts of the meter continued to work.

The water users noted that seven floods had occurred over the meter in that timeframe. The largest flood was at a 3m depth of water, while the others averaged 1m depth of water. The screen was rated for 6m of depth in flooding – demonstrating that it was not fit for purpose for the coastal river setting.

It took 6 months from start to finish to replace the meter, which cost $5000-6000. The DQP had trouble sourcing a replacement and then getting onsite to fit it. WaterNSW contacted the water user every month to renew their s91i extension and they submitted an hour's logbook to keep track of take.

With the Metering Policy now in its fifth year of implementation, metering maintenance barriers are emerging. Due to the use of tamper-proof seals, 'easy to fix' issues such as cleaning debris from within the pump are not possible, as only a DQP can break and re-verify these seals.

Other issues go beyond the control of farmers, such as vibration, heat, and flooding damage. These issues are due to the unsuitable design of meters which have high accuracy but are unable to operate as designed in field conditions. These issues require, at minimum, the assistance of a DQP, and at most the replacement of metering equipment for which the cost rests on farmers to pay.

Not only does this add to demand for limited DQPs, but also puts a further significant cost-burden on water users in service-fees for the DQP. This cost-burden is in addition to the initial cost of the purchase of the metering equipment (see above table for costs), installation services, as well as the ongoing license fees and charges. These costs associated with maintenance are then multiplied by every occasion there is a maintenance issue that requires a DQP callout and revalidation, for each meter that user has.

Current reporting of faulty metering equipment to WaterNSW must occur within 24 hours of a water user becoming aware of an issue using the online Section 91i. Due to further barriers such as DQP availability, many water users have to submit s91i extension forms each month until the issue is resolved. This process becomes an administrative burden due to the need to frequently renew this form.

CASE STUDY: Costs of replacing a battery

A water user in the northern inland recently needed to replace a battery on their meter, which is required to be undertaken by a DQP.

The invoice (cited by NSWIC) was $462 to 'replace battery and revalidate meter'. The cost of the battery itself is only $70.

The water user felt frustrated at this significant financial and administrative burden, as well as the time delays to have the work completed and meter operational again, saying "I don't understand why we can't do this".

It is acknowledged that revalidation processes are important for the integrity of the policy. However, NSWIC recommends adopting pathways to reduce the administrative and cost-burden on water users (see below).

RECOMMENDATIONS

32) Due to the ongoing implementation barriers (e.g., access to DQPs, and fit for purpose meters), we strongly opposes amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

33) For the s91i Extension Form, add a question to clarify the length of extension the water user is requesting (in addition to water users providing the proposed date that the metering equipment will be repaired/replaced). Providing an extension for this requested length of time (as opposed to requiring monthly forms) will reduce the administrative burden for water users and WaterNSW.

9. Review cost-share arrangements

A significant portion of costs for the Metering Policy are recovered from water users' fees and charges. This is on top of water users having to purchase, install and maintain privately-owned meters.

The irrigation industry is of the position that the NSW Government must pay for its own reform, given the reform was driven by the Government failure to deliver compliance services that water users paid for in previous determination periods. As the industry has been made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be cost-effective, efficient, deliverable, and achieve its intended outcomes with an adequate level of service. This has not been the case.

Cost-Shares

In March 2021, IPART introduced five new charges for WaterNSW to recover 100% of the efficient costs of this reform from water users.

This was contrary to water users' expectations – that while the costs of purchasing, installing and maintaining privately-owned meters would fall on water users', the broader reform costs would be borne by Government.

This expectation is consistent with Hansard records, where the (former) Minister for Regional Water then said:

*"Responsibility for metering costs, including purchase, installation and maintenance of meters, sits with irrigators, while stream gauging and meter reading are costs to Government."*29

Cardno also identified a lack of consultation on the consequent pricing impacts of the reform which caught many water users unaware:

"We considered that this lack on consultation meant that customers were not informed of the potential pricing impacts to account for in business planning and WaterNSW was subsequently not informed of how customers may respond to the policy (as customers have options in some areas)."

It remains a point of disagreement regarding whether this 100% user-share of reform costs is reasonable, and this has only been accentuated by the poor delivery of the reform to date.

NSWIC holds firm to the view that the issue was not with the standard of meters irrigators already had, but the Government's failure on its compliance and enforcement activities, which led to the Matthews Inquiry,

[29] Parliament of New South Wales. (October 2017). 'Natural Resources Access Regulator Bill 2017 Hansard. https://www.parliament.nsw.gov.au/Hansard/Pages/HansardResult.aspx#/docid/HANSARD-1820781676-74714

Water Reform Action Plan, and subsequent Metering reform. The Government responded to the loss of public confidence due to its own failures by setting a higher standard of metering regulation (above the national standard, and any other standard globally) with which water users must now comply. The 'impactor' or driver of this reform, is the public interest pursuit of confidence in government water management, including enforcement and compliance.

NSWIC recommends a review of the cost-shares associated with this reform, to reflect this public-interest, in publicly funding the reform. At least, costs should not be recovered from water users until the government can demonstrate the reform is being delivered effectively and efficiently (i.e. through the suspension of this cost-recovery). The issues raised through this review demonstrate this is clearly not the case at present.

Cost-efficiency

Unless efficient costs can be demonstrated, then it is not appropriate for those costs to be recovered from water users. IPART agreed with this position in their draft supplementary report on metering prices, indicating that in the instance of uncertainty or lacking information, Government should have to at least cover the gap to the extent of that uncertainty:
"We consider WaterNSW should bear the risks and costs associated with the implementation of this policy until it has demonstrated that its proposed costs are efficient so they can be included in regulated prices."[30]

NSWIC remains concerned that water users are left paying for inefficient costs. For example, the Cardno Final Report says:

"… there are a number of key areas where there is no better information available at this point in time to either conclude that WaterNSW's assumptions are robust or to make an accurate and reliable adjustment to the specific cost component."

This was, in part, raised by IPART in the supplementary report on metering during the most recent pricing determination: *"metering processes are still relatively immature and further savings can be made to move to the efficient frontier"*.

The 2023 non-urban water metering review process continues to demonstrate that the Government has not met its obligation to water users to implement an effective and deliverable reform with adequate levels of service. The industry continues to have little confidence in the information underpinning decisions on the efficiency of metering charges, particularly given implementation delays and barriers. This does not demonstrate satisfactory efficiencies to recovery costs from water users.

[30] IPART, (October 2021). 'Draft Report - WaterNSW Rural Bulk Water'. https://www.ipart.nsw.gov.au/Home/Industries/Water/Reviews/Rural-Water/WaterNSW-rural-bulk-water-prices-from-1-October-2021

Example) Delays cause increasing costs of the reform on water users

The delays in reform implementation as a result of poor policy design, barriers to compliance (and inaction on these barriers for years after they were raised by water users) is further increasing the costs of the reform.

As part of the most recent Pricing Determination, Cardno reviewed proposed expenditure on the Metering Policy, finding: *"If roll-out is delayed, there is potential that some of these costs may need to increase."*

NSWIC is of the strong view that additional costs incurred as a result of poor reform design and delivery should not recovered from water users.

CASE STUDY: Charges for maintenance services not provided

A large number of licenses on the Bega/Bemboka are already metered with Government-owned meters. However, a lot of them are not working. This been reported to WaterNSW but there is no one available to fix them, and they keep getting put on the extension list.

Despite this, the Government has been charging farmers for the maintenance costs of these meters, even though they are not being fixed. Put simply, Government is charging for a service not being provided.
The annual charge is said to be around $400/ meter, noting some farms have more than 1 meter.

Now, WaterNSW are seeking to transfer ownership of the meters to the water users, which in turn, means shifting responsibility for maintenance over to the water users also. Water users have expressed concern that if WaterNSW was unable to attain someone to fix these issues and maintain the meters, how are private farmers supposed to?

RECOMMENDATIONS

34) The NSW Government must pay for its own reform, which was driven by the Government's failure to deliver compliance services that water users had paid for in previous pricing determination periods. If the industry is made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

10. Develop a clear communication strategy

CASE STUDY: Communication in the Hunter Valley

In March 2023, farmers in the Greater Hunter received a poorly written letter from WaterNSW and NRAR, stating in bold "Act now to avoid fines or other penalties". Irrigators ranging from farm managers to small family business raised their confusion and displeasure at the abrupt nature of the letter to their local water users' association during on-farm visits that week. These farmers were of the (correct) understanding that they had until 1 December 2024 to become compliant.

This incident demonstrates ongoing ineffective communication that erodes water user's trust towards water agencies involved in educating and enforcing the Metering Policy.

CASE STUDY: Metering options in flood-prone areas

A farmer in coastal NSW uses less than 100ML annually, however, requires multiple pumps on their property. Due to their location on a floodplain, their pump sites have been underwater three times in the last two years. They have recently contacted a DQP to talk through available options and will likely need to install a portable pump set up on a skid.

The farmer noted that finding information about portable metering equipment was hard to find, and they required the expertise of the DQP to help them.

Some water users in the later tranches are unaware of the reform and their obligations – which we anticipate being most significant on the coast. This is because many water users in these regions are very small, irrigate infrequently, or may not even identify as an irrigator (i.e., hobby farmers, caravan park owners, etc.).

The initial tranches of the metering reform across inland NSW included an in-person roadshow to communicate compliance requirements. However, this roadshow has been disbanded. Consequently, the task of spreading information, especially across coastal regions, has been passed on in part to small water user associations. This is an unfair expectation on voluntary associations whose key function is to advocate for their communities and generally do not have the resources required to undertake communication of this scale.

While online tools such as the Metering Guidance Tool provide a helpful service to those who are aware of the reform and their personal responsibility, there are water users who are unaware of the reform, including water users who are not active online, who have poor computer literacy, and those who irrigate intermittently with dozer and sleeper licences.

NSWIC understands that for Tranche 1 of the reform, NRAR contacted water users individually to educate them on compliance requirements. This type of individual contact may be required to ensure every water user understands their responsibilities. However, there are concerns that the WaterNSW database is not up to date, which makes it difficult for the regulator (or agencies) to contact these users. This also raises concerns that correspondence sent to water users may not have reached the recipient. Updating this customer database, and ensuring its ongoing maintenance, is essential.

Further, an ongoing lack of water agency staff presence in regional valleys has resulted in water users finding it difficult to access information and services to find out their requirements. NSWIC members reported that WaterNSW staff giving presentations or coming onsite have travelled from out of town, such as from Deniliquin to perform work in Bega and from Dubbo to perform work in the Hunter Valley. While WaterNSW has claimed that its regional presence has not changed, on the ground experiences suggest otherwise.

RECOMMENDATIONS

35) Water agencies to collaboratively develop a clear educational approach to inform coastal NSW about the metering reform and their upcoming compliance date of 1 December 2024, including;
    a) Informative and succinct online and print resources (e.g., information booklets, factsheets, videos)
    b) In-person consultation opportunities, held in local community hubs such as ServiceNSW
    c) A metering information 'roadshow', similar to those previously held inland
    d) Further development of resources available on WaterNSW website to inform water user of their measurement, recording and reporting requirements, including;
        i) Improved communication of customer forms;[31] and
        ii) Navigation and streamlining improvements to iWAS.

[31] WaterNSW. 'Customer Assistance' [website]. https://www.waternsw.com.au/customer-services/help-and-support/customer-assistance

Conclusion

Whilst it is the responsibility of the water user to demonstrate they have taken all reasonable steps to become compliant, there is now a concerning situation in which full compliance remains impossible in many circumstances, or at best, is significantly delayed.

Urgent Government intervention is required to address these barriers. Ultimately, it is the responsibility of Government to ensure its reform is deliverable, adequately resourced, and that implementation barriers are promptly resolved.

Without intervention to resolve these barriers, there is an impending high risk of policy failure. This poses a major risk to a significant public interest reform, which the industry wants implemented as early as feasible.

APPENDIX A: Responses to Consultation Paper Focus Questions

Ensuring that metering requirements only apply to works taking water:

Question: What would make it easier for water users to give government this information?

To make it easy, the pathway needs to be cost-free, easily reversible, and administrative in nature (not requiring physical impediments).

Reviewing metering requirements to target risk more effectively:

Questions: Should there be flexibility in metering and measurement standards reflecting risk to water sources, or should there be one standard across the board? Would it be easier to understand and comply with metering rules based on entitlement or volume of take than the current approach based on infrastructure size? If a volumetric approach was to be implemented, should it be consistent across the state, or tailored by catchment to reflect the different water use behaviours and water management risks in different areas? What are the practical implementation challenges that water users might experience in complying with metering requirements based on volume of take or entitlement? Are there any issues specific to different industries that take water under a licence that should be considered in relation to the possible options described?

Due to the level of investment by water users into the work sized-based reform, we support implementation of the work size-based reform across the state to ensure its practical and enduring implementation.

Current exemptions that remove metering compliance requirements include works solely to take water under BLR, inactive works, and small, low-risk works to take D&S water. A preliminary suggestion is to investigate a 'low-volume water user exemption' based on average annual water usage over a 5-year period. This exemption could provide less costly and less prescriptive measurement requirements, while requiring that low-volume water users still record and report their water take.

Additionally, NSWIC and its members support the reference to one policy instrument – the non-urban water metering policy. All inconsistencies between licence conditions, water sharing plans, and the metering policy should be amended to come under this policy instrument.

Revisiting installer requirements to accelerate progress:

Questions: Who should install metering equipment? Do you think there would be benefits from government involvement in the DQP market? For example: if government contracted and coordinated DQP services then passed on the costs? if government provided fee-for-service DQPs? What forms of further training or support would make it more viable for already qualified DQPs to actively participate in the market? Is there benefit in revisiting the skill sets and training required for DQPs? Are the current training and certification requirements limiting the market or are the other factors more significant?

NSWIC supports the government assuming responsibility for DQP services in NSW. This includes the coordination of DQP services to match supply with demand, resourcing and funding a public-sector (i.e. WaterNSW) and private sector services to deliver its reform, and providing support to streamline DQP administrative tasks.

NSWIC supports the expanding the DQP workforce by amending the rules and training skilled workers via a short course. This action is only a part of the solution and will not address worker shortages experienced in regional NSW. Adequate financial incentive for these services will be imperative.

We do not support removing DQP certification of AS4747 meters, as this will impact on the irrigated agriculture industry's reputation and the integrity of the reform. Furthermore, we do not support the use of fee-for-service models or increasing the cost under WAMC to address the shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the Government needs to fund the appropriate level of service, which has not been provided in previous price-determination periods.

Making data systems and equipment standards more fit for purpose:

Questions: Would separating the requirements for meter installation from data loggers and telemetry be beneficial? Would an extension of the compliance timeframes for data logging requirements be helpful? Would government support for rolling out data loggers and telemetry be beneficial? What are the benefits and risks if government was more prescriptive about the suitable products/ technologies and combinations of meters and data loggers? Do water users want access to more frequent meter data? Is it important to be able to use existing telemetry systems that are currently excluded (e.g. SCADA)? What forms of training and support would make it easier for DQPs to navigate data logger and telemetry installation?

NSWIC supports the decoupling of data loggers and telemetry from meter installation requirements. Benefits include increasing compliance, permitting time for other systems (e.g., DAS) to be upgraded and made fit for purpose, and the development of a practical and enduring strategy for implementation.

NSWIC also supports the government assuming responsibility for telemetry systems (that water users can opt-out of if they desire). Benefits include the government co-ordination and bulk procurement, installation, maintenance and ownership of the telemetry system, government responsibility for the transmission of data to its own DAS (which is beyond the control of water users), and the selection of data logger and telemetry systems that meet cyber security requirements.

NSWIC also supports the Government providing recommended data loggers and meters combinations for optimal functionality. The cost of these combinations must be taken into consideration for water users and businesses of all sizes.

Improving water use reporting:

Questions: How can we improve the mechanisms for water use reporting? What would make it easy for water users to complete an annual attestation of the volume of water taken and how it was measured?

To improve water use reporting, WaterNSW should develop and implement a clear education strategy (in-person, print, and online) to inform customers of their water ordering, recording and reporting obligations – noting that resources available both online (e.g., iWAS) and in hardcopy (customer forms on the WaterNSW website).

Furthermore, WaterNSW should send out a monthly and/or annual automated message reminding water users to record and/or report their water usage. To ensure reporting requirements are practical, water users should be required to record/report on months that water is taken. If reports are not submitted, it should be recognised that water was not taken that month.

To ensure these efforts are effective, WaterNSW must ensure its customer database and Water Access Licence Register are up to date.

NSWIC does not support any attestation/confirmation of data submitted by telemetry, as this form of data reporting is out of the control of water users, many of whom have not got access to this data.

Ensuring a measurement pathway for take of overland flow in unregulated water sources:

Question: Will this proposed change enable appropriate measurement and reporting of overland flow take in unregulated river entitlements?

NSWIC opposes the proposal to exempt water users taking overland flow under an unregulated access licence from metering requirements. This would feed into further negative public perceptions, would lack political support for regulatory change, and does not work towards an enduring solution. Instead, the FPH measurement policy should be reviewed and made practical, with clear and achievable timelines.

As work is don't to address these barriers, improvements should be made to private, and government installed secondary devices that are currently not fit for purpose (e.g., gauge boards). Additionally, approved, certified secondary meters should be permitted to take FPH or overland flow water.

Finally, ongoing water users consultation is required to find solutions to policy failures such as; identification of a LID in a storage within a works approval to take Floodplain Harvested water while still irrigating from other storages within a works approval, without the requirement to subdivide the works approval; and the measurement of water taken from the storage via a different outlet to the one used to take Floodplain Harvesting entitlement.

Strengthening compliance and enforcement powers:

Do you think the suggested improvements to compliance and enforcement tools will clarify the expectations on water users and make the system fairer?

Due to the ongoing implementation barriers beyond water users control noted in the metering consultation paper and the NSWIC submission, we strongly do not support amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

APPENDIX B: 3 Unregulated Water Sources in Bega Valley

Candelo CK:
21 Water Licences
4 Active Licences representing 63% of the licenced volume
17 Inactive licences avg Vol 37ML

	Candelo Ck Water Source			
WAL No.	Water Source	Licence Vol	Active	Existing meter
23431	Candelo Creek Water Source	18	No	No
23440	Candelo Creek Water Source	78	No	No
23429	Candelo Creek Water Source	5	No	No
23443	Candelo Creek Water Source	25	No	No
23447	Candelo Creek Water Source	37	No	No
23448	Candelo Creek Water Source	15	No	No
23444	Candelo Creek Water Source	98	No	No
23441	Candelo Creek Water Source	203	No	No
23445	Candelo Creek Water Source	18	No	No
23435	Candelo Creek Water Source	4	No	No
23449	Candelo Creek Water Source	57	No	No
23432	Candelo Creek Water Source	320	Yes	No
23442	Candelo Creek Water Source	13	No	No
23438	Candelo Creek Water Source	6	No	No
23439	Candelo Creek Water Source	5	No	No
23433	Candelo Creek Water Source	50	No	No
23434	Candelo Creek Water Source	104	Yes	No
23436	Candelo Creek Water Source	525	Yes	No
23430	Candelo Creek Water Source	5	No	No
23446	Candelo Creek Water Source	138	Yes	No
23437	Candelo Creek Water Source	1	No	No
	Total Licence Vol	**1725**		
	% licence vol active	63		

Upper Bega/Bemboka River:
69 Water Licences
29 Active Licences representing 83% of the licenced volume
22 Active Licences have Govt meters
40 Inactive licences avg Vol 39ML

	Upper Bega/Bemboka River Water Source			
WAL No.	**Water Source**	**Licence Vol**	**Active**	**Existing meter**
23735	Upper Bega/Bemboka River Water Source	313.5	Yes	?
23783	Upper Bega/Bemboka River Water Source	54	Yes	No
27824	Upper Bega/Bemboka River Water Source	479	Yes	
23729	Upper Bega/Bemboka River Water Source	148	Yes	
23796	Upper Bega/Bemboka River Water Source	130	Yes	Yes
23772	Upper Bega/Bemboka River Water Source	163	Yes	
23745	Upper Bega/Bemboka River Water Source	238	Yes	Yes
23752	Upper Bega/Bemboka River Water Source	180	Yes	No
23770	Upper Bega/Bemboka River Water Source	90	Yes	No
23768	Upper Bega/Bemboka River Water Source	493	Yes	Yes
23787	Upper Bega/Bemboka River Water Source	90	Yes	No
23740	Upper Bega/Bemboka River Water Source	611	Yes	Yes
23771	Upper Bega/Bemboka River Water Source	594	Yes	Yes
23746	Upper Bega/Bemboka River Water Source	330	Yes	Yes
23794	Upper Bega/Bemboka River Water Source	160	Yes	
23718	Upper Bega/Bemboka River Water Source	307	Yes	Yes
23714	Upper Bega/Bemboka River Water Source	195	Yes	
23713	Upper Bega/Bemboka River Water Source	27	Yes	Yes
23742	Upper Bega/Bemboka River Water Source	151	Yes	?
23779	Upper Bega/Bemboka River Water Source	351	Yes	
23767	Upper Bega/Bemboka River Water Source	252	Yes	
23732	Upper Bega/Bemboka River Water Source	430	Yes	Yes
23721	Upper Bega/Bemboka River Water Source	133	Yes	
23751	Upper Bega/Bemboka River Water Source	264	Yes	
23799	Upper Bega/Bemboka River Water Source	29	Yes	
23778	Upper Bega/Bemboka River Water Source	129	Yes	Yes
23800	Upper Bega/Bemboka River Water Source	490	Yes	Yes
24023	Upper Bega/Bemboka River Water Source	516	Yes	Yes
23790	Upper Bega/Bemboka River Water Source	22	Yes	Yes
23733	Upper Bega/Bemboka River Water Source	195	No	No
23795	Upper Bega/Bemboka River Water Source	179	No	No
23780	Upper Bega/Bemboka River Water Source	260	No	No
23757	Upper Bega/Bemboka River Water Source	25	No	No
23782	Upper Bega/Bemboka River Water Source	220.5	No	No
23797	Upper Bega/Bemboka River Water Source	180	No	No

23717	Upper Bega/Bemboka River Water Source	19	No	No
23758	Upper Bega/Bemboka River Water Source	6	No	No
23754	Upper Bega/Bemboka River Water Source	24	No	No
23744	Upper Bega/Bemboka River Water Source	20	No	No
23748	Upper Bega/Bemboka River Water Source	65	No	No
23728	Upper Bega/Bemboka River Water Source	0	No	No
23760	Upper Bega/Bemboka River Water Source	44	No	No
23719	Upper Bega/Bemboka River Water Source	5	No	No
23762	Upper Bega/Bemboka River Water Source	5	No	No
23750	Upper Bega/Bemboka River Water Source	15	No	No
23759	Upper Bega/Bemboka River Water Source	5	No	No
23731	Upper Bega/Bemboka River Water Source	10	No	No
23715	Upper Bega/Bemboka River Water Source	1	No	No
23788	Upper Bega/Bemboka River Water Source	15	No	No
23761	Upper Bega/Bemboka River Water Source	6	No	No
23793	Upper Bega/Bemboka River Water Source	45	No	No
23755	Upper Bega/Bemboka River Water Source	5	No	No
23766	Upper Bega/Bemboka River Water Source	5	No	No
23747	Upper Bega/Bemboka River Water Source	5	No	No
23784	Upper Bega/Bemboka River Water Source	72	No	No
23749	Upper Bega/Bemboka River Water Source	32	No	No
23741	Upper Bega/Bemboka River Water Source	1	No	No
23763	Upper Bega/Bemboka River Water Source	5	No	No
23774	Upper Bega/Bemboka River Water Source	4	No	No
23722	Upper Bega/Bemboka River Water Source	5	No	No
23764	Upper Bega/Bemboka River Water Source	6	No	No
23743	Upper Bega/Bemboka River Water Source	1	No	No
23776	Upper Bega/Bemboka River Water Source	1	No	No
23737	Upper Bega/Bemboka River Water Source	65	No	No
23792	Upper Bega/Bemboka River Water Source	3	No	No
31028	Upper Bega/Bemboka River Water Source	1	No	No
36220	Upper Bega/Bemboka River Water Source	9	No	No
41119	Upper Bega/Bemboka River Water Source	3.5	No	No
41120	Upper Bega/Bemboka River Water Source	3.5	No	No
	Total Licenced volume	**8941**		
	% Licence Vol active	82		
	% Licence Vol active with Govt meters	89		
	Note many of the Govt meters are not working and WaterNSW have not indicated when they will be fixed			

Tantawanglo Ck:
33 Water Licences
5 Active Licences representing 69% of the licenced volume
28 Inactive licences avg Vol 55ML

Tantawangalo Creek Water Source

WAL No.	Water Source	Licence Vol	Active	Existing Meter
23510	Tantawangalo Creek Water Source	3	No	No
23486	Tantawangalo Creek Water Source	1500	Yes	?
23508	Tantawangalo Creek Water Source	49	No	No
23502	Tantawangalo Creek Water Source	173	Yes	No
23481	Tantawangalo Creek Water Source	6	No	No
23484	Tantawangalo Creek Water Source	4	No	No
23492	Tantawangalo Creek Water Source	508	Yes	No
23482	Tantawangalo Creek Water Source	5	No	No
23493	Tantawangalo Creek Water Source	330	No	No
23494	Tantawangalo Creek Water Source	10	No	No
23503	Tantawangalo Creek Water Source	15	No	No
23504	Tantawangalo Creek Water Source	4	No	No
23505	Tantawangalo Creek Water Source	6	No	No
23487	Tantawangalo Creek Water Source	31	No	No
23488	Tantawangalo Creek Water Source	113	No	No
23495	Tantawangalo Creek Water Source	10	No	No
23489	Tantawangalo Creek Water Source	975	Yes	No
23496	Tantawangalo Creek Water Source	210	No	No
23511	Tantawangalo Creek Water Source	45	No	No
23512	Tantawangalo Creek Water Source	1	No	No
23509	Tantawangalo Creek Water Source	25	No	No
23497	Tantawangalo Creek Water Source	358	No	No
23490	Tantawangalo Creek Water Source	2	No	No
23506	Tantawangalo Creek Water Source	208	No	No
23507	Tantawangalo Creek Water Source	1	No	No
23498	Tantawangalo Creek Water Source	1	No	No
23483	Tantawangalo Creek Water Source	5	No	No
23499	Tantawangalo Creek Water Source	5	No	No
23513	Tantawangalo Creek Water Source	5	No	No
23500	Tantawangalo Creek Water Source	16	No	No
23491	Tantawangalo Creek Water Source	240	Yes	No
23485	Tantawangalo Creek Water Source	78	No	No
23501	Tantawangalo Creek Water Source	1	No	No
	Total Licence Vol	4943		
	% Licence Vol active	69		

NSW Government

Department of Planning and Environment - Water Group

E: water.enquiries@dpie.nsw.gov.au

24 November 2023

Review of the NSW Non-Urban Metering Policy – November 2023

As a member of the NSW Irrigators' Council (NSWIC), this letter confirms that [redacted] supports the NSWIC submission *Addressing Metering Compliance Barriers* for the NSW Governments R*eview of the NSW Non-Urban Water Metering Policy.*

The NSWIC submission identifies a wide-reaching range of barriers that delay or completely prevent water users from complying with the NSW Non-Urban Water Metering Policy. These barriers are beyond the control of water users across the state who seek to comply with metering rules, they prevent effective policy implementation, and consequently there is a high likelihood of policy failure if they remain un-addressed.

The NSW irrigation industry supports continual improvements to metering, monitoring and measurement of water use; supports sustainable limits on use; and has zero tolerance for non-compliance with water laws. The Metering Policy, now approaching its fifth year of implementation, has seen many water users across NSW invest significant time, finance, and labour resources in efforts to achieve compliance where possible. This investment means there is generally a reluctance to 'water down' the policy in most (but not all) instances, rather, there needs to be a means to achieve full compliance.

The current state of affairs is a very unfortunate, and disappointing, outcome for our industry. In our view, current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity. Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

We appreciate the recent effort of the NSW Government and DPE-Water to identify problems and possible solutions to metering compliance barriers. The acceptance and public acknowledgement of these barriers provides transparency on reasons for non-compliance, noting that many are beyond the control of water users. However, the next step forward, with urgency, is the adoption of practical and enduring resolution of these barriers. The NSWIC submission provides a suite of helpful recommendations towards this goal, demonstrating the desire of the industry to work collaboratively to reach full metering compliance. As a high-level overview, NSWIC recommends:

1. Provide an automatic temporary exemption for known barriers;
2. Establish a pathway to correctly nominate inactive works;
3. Remove inconsistent metering conditions on licences;
4. Revisit metering requirements that target risk;
5. Revisit meter installation and certification requirements;
6. Revisit management of telemetry systems;
7. Revisit overland flow measurement pathways;
8. Improve practical reporting process for general water usage reporting;

9. Improve practical reporting processes for faulty meters;
10. Review cost-sharing arrangements; and
11. Develop a clear communication strategy, particularly for coastal NSW.

[redacted] appreciate the consultation opportunities provided to us through this review, and look forwards to further occasions to provide feedback on addressing metering compliance barriers.

[redacted] SUBMISSION TO THE REVIEW OF THE IMPLEMENTATION OF THE NSW NON-URBAN METERING POLICY

[redacted] welcomes this opportunity to provide a formal submission in response to the New South Wales (NSW) Government's review of *The implementation of the NSW Non-Urban metering policy.*

[redacted] is a widely recognised and highly regarded peak industry group which represents water entitlement holders across the [redacted] of New South Wales.

[redacted] has a proud history of providing strong, positive contributions towards the management of water, and as an apolitical, not-for-profit organisation we advocate for and support proactive, sustainable water policy and legislation that provides positive outcomes for our members whilst also meeting the environmental, economic, cultural, and social requirements of the local communities throughout the catchment. [redacted] is funded by a voluntary nominal levy on a cents per megalitre basis by water entitlement holders.

This submission is made on behalf of all members, but individuals reserve the right to make their own submission. Each member of [redacted] is also a member of the NSW Irrigators Council (NSWIC) and therefore we endorse their submission unless specifically stated.

[redacted] has liaised closely with NSW Irrigators Council and other industry member organisations. This has resulted in the following recommendations having been put together to provide guidance to the NSW Government for pathways towards improving metering compliance rates.

[redacted] stresses the significant amount of time, money and resources which the irrigation industry has invested into the NSW non-urban metering reform. There is absolute support for water to be metered and measured, but to date the reform has been ineffective, with many barriers, inequities and complications resulting in non-compliance to water users through no fault of their own. Prior to the launching of the reform industry expressed concerns the reform would be problematic, to the extent of being unachievable in some areas, without more practical methods of application. For the most part, these concerns were not heeded, and have proven to have come to fruition. [redacted] recommends there must be an inward-looking focus back to the department and the decision makers who chose not to listen to practical advice and solutions. It is now time for industry to be heard, and have the practical, efficient methods which are proposed to see the policy implemented to deliver the metering requirements, without compromising or undermining the integrity and efforts exhausted to this point.

It is critical that the NSW State Government and NSW Department of Planning and Environment (DPE) do not take a lack of engagement to this review as a sign of a lack of interest, and instead encourages further engagement following this period. The NSW irrigation industry is currently navigating one of the most challenging periods in the history of the industry, as the Federal Government pushes legislative amendments to the Murray Darling Basin Plan which threaten the irrigation industry. This has meant many members of [redacted] reporting not having the time to engage in this consultation for the non-urban metering reform review.

[redacted] recommends the NSW Government implement the following:

Provide an automatic temporary exemption for known barriers.

1) A list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome (noting the Minister may revoke or amend the exemption at any time).

2) A mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the Duly Qualified Person (DQP) to formally register the circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

Pathway to nominate active works.

3) A pathway for water users to identify the works used to take licenced water from a water source. The process must be:
   a) Cost free.
   b) Easily reversible; subject to meeting the metering requirements at such a point in time as the work becomes active again.

4) A clear criterion as to what constitutes an 'active' or 'inactive' to ensure requirements are well understood. Currently, requirements for an inactive work are that the water user will need to demonstrate the work is physically incapable of taking water e.g., pipes removed and pump disabled, or pipes are sealed shut and connected to a tamper proof device.

Remove inconsistent metering conditions on licences.

5) The removal of pre-existing specific metering conditions on licences, and instead refer to one instrument. Ensuring all metering requirements are captured under one policy instrument, removes risk of inconsistency and confusion. There should also be a "to the extent of any inconsistency" clause to provide further assurances on this.

6) The resolution of all inconsistencies between licence conditions, Water Sharing Plan (WSP) and the current Non-Urban Water Metering Policy, particularly noting that:
   a) water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded.
   b) compliance date for coastal NSW is 1 December 2024.

Metering requirements that target risk

7) The continuation of the requirement for DQP certification for AS4747 meters – [redacted] does not support the removal of this requirement due to the risk of damaging the industries reputation, and

the integrity of the reform, if it were to be seen as cutting corners or being watered down (noting that the definition of DQP may expand).

8) The continuation of the work size-based model for inland NSW – [redacted] does not support a state-wide rollout of a stratified volume-based model, nor a catchment-by-catchment approach. This is due to:
   a) The investment of significant resources into the well-established work size-based model, this would result in inequity, such as for water users who are captured under the current policy settings but would not be under changed settings.
   b) The perception of non-standard expectations permitted through implementing varied requirements across different catchments.

9) Practical and simple reporting requirements – [redacted] does not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

10) Under the current work size-based model, review the list of exemptions with the goal to provide less costly options for smaller and low-risk water users across NSW, particularly noting smaller and low risk water users in at risk water sources such as the Namoi catchment.

11) Provide clarification for what will happen to water users currently eligible under the "Small, low risk works used solely to take water under a stock and domestic water access licence" that lapses on 1 December 2024.

12) Under the current work size-based model, clarify the following definitions:
   a) Smaller water user.
   b) Low risk water user.
   c) Types of groundwater works.
   d) Types of surface water works.

Revisit meter installation and certification requirements

13) The government management and coordination of the DQP services to address DQP shortages in targeted areas and matching supply with demand. Due to the current market failure, water users feel the status quo is not effective, largely due to lack of financial incentive and rigorous requirements for DQPs that makes it not worthwhile, which has resulted in the number of DQPs actually operating being much lower than those listed as accredited. There is a view that if the Government were to take over the management and co-ordination of DQPs, this would then appropriately shift the responsibility onto Government to deliver their own reform.
   This is preferable to other alternatives, such as removing the DQP requirement, or enabling the water user to self-certify their works, as these are seen as diluting the reform, and undermining its integrity, and therefore cannot be supported.

[redacted] recognises and appreciates the concerns as to whether this would fully resolve the problem or not, given labour shortages are a key issue in these areas irrespective of whether public or private sector employment. Therefore, this step, while supported, is considered only a part of the solution. There have been suggestions as to whether existing agencies such as WaterNSW could take on this responsibility, or a shift to Local Government. It is critical that a public-sector service is appropriately resourced and funded, to avoid repeating past mistakes of poor levels of service delivery.

14) Expansion of the definition of who can be a DQP to install and certify works for smaller and low risk water users – [redacted] supports this in principle, noting however that there are worker shortages in many regional areas, meaning this alone will not address that issue. If still within the private sector, it will be imperative that there is adequate financial incentive for these services to be delivered, due to those capable of providing this service earning higher levels of profit from continuing their everyday businesses.

15) Enable less prescriptive installation pathways for closed conduit meters for smaller and low-risk water users.

16) A review of maintenance requirements, such as in-situ accuracy testing, which are not mandated under the national metering standards and are not possible under the current allocation of resources.

17) An increase in DQP support, particularly with burdensome administrative tasks, with a preference to streamlining tasks.

18) [redacted] does not support the use of any fee-for-service model or increasing the cost under Water Administration Ministerial Corporation (WAMC) to address the shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the government needs to provide the appropriate level of service, which has not been provided in previous price-determination periods. It is also noted that the origin of this reform is in-part the result of inadequate service delivery by Government previously, in terms of metering and compliance, and it should be a responsibility of Government to rectify this poor service delivery.

Revisit management of telemetry systems

19) The Government ownership and management of data loggers and telemetry systems – [redacted] support the government takeover of telemetry. The single source of truth for water users is their water meter. The additional responsibility to transmit water extraction data from a meter to government (which can also be accessed by the water user) should be held by the government. This would include:
    a) Government coordination and bulk procurement, installation, maintenance and ownership of all data-loggers and systems (unless the water users opts-out and selects private ownership).
    b) [redacted] are of the opinion that until the Government backend system, i.e., the Data Acquisition Service (DAS) is operational and able to receive data, it is not appropriate for telemetry to be required.

20) If prescribing meter and data logger combinations, the combinations provided must be cost-effective.

Revisit overland flow measurement pathways

21) Revisit the Floodplain Harvesting measurement policy to ensure it is effective practically - FPH monitoring and metering standards are not fit for purpose because they are completely impractical (irrespective of metering equipment and their respective issues).

Practical reporting processes: general water usage reporting

22) Improvement of government installed secondary devices that are not fit for purpose (e.g., gauge board height markings).

23) [redacted] propose that entitlement holders should be permitted to take Floodplain harvested or overland flow water with approved, certified secondary meters until such time that the following barriers are addressed:
    a) The shortage of DQPs prepared to install storage meters.
    b) The availability of primary storage meters is improved.
    c) The configuration and linkages of storage curves to storage meters and the DAS is streamlined so users can readily access data to enable them to be compliant.
    d) Sufficient resources are allocated to WaterNSW to upgrade the DAS system to be fit for purpose for DQPs and water users.
    e) The newly approved improvements to survey requirements can be utilised by surveyors.

24) Continue water user consultation to find a solution to policy failures, such as:
    a) enabling users to identify a specific Local Intelligent Device (LID) in a storage within a works approval to take Floodplain harvesting water while still irrigating from other storages within a works approval without the requirement to subdivide the works approval; or
    b) The measurement of water taken from the storage via a different outlet to the one used to take Floodplain harvesting entitlement.

Practical reporting process: general water usage reporting

25) WaterNSW to send out a monthly and/or annual automated message (water users to nominate for email or letter) prompting water users to log their water use. Include the due date, a link to where this data can be entered online, or a PDF logbook print out that can be mailed in. This requires an up-to-date database of customer details, as well as correct licence information on the Water Access Licence Register.

26) Practical and simple reporting requirements - [redacted] does not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

27) [redacted] does not support any attestation/confirmation of data submitted by telemetry, as this form of data reporting is out of the control of water users, many of whom have not got access to this data.

Practical reporting process: faulty meters

28) Due to the ongoing implementation barriers (e.g., access to DQPs), we strongly do not support amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

29) An extended s91i self-reporting form valid for a 6-month period to reduce administrative burden and simplify the current monthly reporting requirements.

Review cost-share arrangements

30) The NSW Government must pay for their own reform, upgraded due to the government failure to deliver compliance services that water users paid for in previous determination periods. As the industry has been made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

Develop a clear communication strategy.

31) Water agencies to develop a succinct booklet and or factsheet on how to comply with the meeting reform to mail to water users or have available at ServiceNSW locations.

32) Water agencies to organise an in-person consultation services such as a roadshow with presentations, and/or 1:1 information sessions located in community hubs such as ServiceNSW.

33) Water agencies to collaboratively develop a 'one-stop shop' website with clear links to information (e.g., guidance tools, factsheets) relevant to each stage of the metering journey.

24 November 2023

Department of Planning, Industry & Environment - Water
Email: water.enquiries@dpie.nsw.gov.au

To the relevant officer,

Regional Group Australia (Regional Group) is the parent company to a number of resource extraction companies within NSW which either hold water supply work approvals or could feasibly obtain work approvals in the future.

Regional Group is committed to complying with all conditions of the Work Approvals held, however, has found this to be difficult with respect to water metering requirements.

The following presents a submission in relation to the current water metering conditions and requirements of work approvals under the Non-Urban Metering Policy ("*NUM Policy*"). In preparing this submission, we identify and reference relevant sections, statements and targeted questions of the "Review of the non-urban metering framework: Issues and options paper, October 2023" ("the Review"). It is noted that Regional Group was represented at one of the NSW Government webinars discussing the issues and options paper.

Our submission is presented in four (4) sections as follows.

1. Metering of extraction from voids
2. Complicated Terminology of Work Approval Conditions
3. One Size fits All
4. Response to Focussed Questions

1. Metering of Extraction from Voids

The requirement for recording groundwater extraction by water meter (without correction) is not practical for open water sources such as quarry voids. The NUM Policy (and ultimately water management legislation) does not allow for account for approved water extraction situations where there is mixing of the licensed water source for extraction and other non-licensed water sources.

The following reviews two key impediments to complying with the *NUM Policy* and *Water Management Act 2000* in current form, as well as some general commentary on the implementation objective of the *NUM Policy*.

Groundwater Extraction from Voids

Under NSW Water Management legislation, a void is identified as a bore for the purpose of Water Supply Work Approval. However, unlike a groundwater bore, water which accumulates in a void will be drawn from multiple sources (not just groundwater).

As a result, metering of pumps drawing water from a quarry void (or other open water source licensed to take water from a defined water source) does not accurately reflect the take of water. Sources of water which accumulate in quarry void spaces include:

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- Surface rainfall and runoff
- Runoff from watering of roads and other surfaces to suppress dust
- Water returned to holding cells or the quarry void itself following use in washing, processing or dust suppression works.

Once mixed, the pump and meter cannot distinguish between water sources and as a result will record a value greater than the actual take of groundwater.

The recording of water take in this manner also ignores the potential loss of groundwater through evaporation (which is not accounted for by the metered pump).

As a result of the mixing of ground and surface water (including return / recycled water), the meter reading will not be an accurate record of any groundwater take (which is then limited by Water Access Licence allocation and/or conditions of Work Approval). Currently there is no method or option for correcting the take of water to reflect these factors.

Discrepancy between Extraction Limit and Metered Take

In the event the holder of a work approval drawing groundwater from a void decided to account for all water pumped from the void as groundwater, i.e. allocate and pay for all water taken as groundwater, current arrangements between water regulators prevents this as the Water Access Licence and Work Approval will include a condition(s) limiting the total annual extraction.

These extraction limits have historically been defined through water balance analysis at the development application stage. Water balance assessments take into account the various inputs and losses to a void space and consider factors such as:

- Groundwater levels (and variation)
- Area and depth of exposed groundwater
- Surface catchments and rainfall
- Evaporation rates
- Dust suppression / surface watering rates and methods
- Return water arrangements, e.g. return of silty water to deposition cells within the void, and
- Flood waters

Groundwater extraction limits are set based on the water balance assessment which considers all water inputs and losses. When metering extraction, these additional water inputs and losses are not. As a result, metered extraction is likely to be higher than approved WAL or Work Approval limits, even when the volume of groundwater taken complies.

Ultimately, there is no correlation between the original prediction of NET groundwater take (and subsequent limit of extraction) and the GROSS volume of water pumped from the quarry void and recorded by the meter. The NUM Policy does not allow for an post monitoring analysis or correction.

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Application of the 'Effective Implementation' Objective of the NUM Policy

This matter relates directly to one of the key objectives of the *NUM Policy*, namely: *Metering requirements are practical and can be implemented effectively*. With reference to the rationale behind this objective provided in *Table 1* of the *NUM Policy*.

- The rules which require water drawn from a quarry void to be metered is **NOT practical**.

  With reference to the unavoidable mixing of source water streams to a quarry void, it is not possible to accurately measure / record the volume of groundwater extracted. The approach to predicting / calculating groundwater take is discussed under Issue 2.

- The rules are **NOT simple**.

  It is difficult for operators drawing water from quarry voids to understand how metered record relates to actual groundwater take and therefore what they are required to report.

- The rules are **NOT consistent**.

  Based on current metering requirements, those drawing water from quarry voids are required to report all water as the licensed groundwater source when this is not the case. Critically, this will ultimately prevent the operator from drawing their full entitlement, even when they pay for this to account for metered water flow. This is clearly an inconsistent application of water allocation and licensing. Furthermore, reporting overinflated groundwater take will compromise overall analysis of water take and future allocation.

- The rules are **NOT flexible**, as they are applied as standard, i.e. one size fits all (refer to Section 3 below).

  The policy requires flexibility to allow for an alternative method of reporting groundwater take from quarry voids. The ability to apply a correction factor is discussed under Recommendations.

Recommendations

1.1. Create a distinct / new classification of water supply work for quarry voids or other mixed open water extraction

1.2. Exclude water supply work for quarry voids from the NUM Policy.

In the absence of a new classification of water supply work and exclusion from the NUM Policy, it is recommended that

1.3. Additional flexibility, potentially in the form of applicable correction factors, is added as a condition of Works Approval[1].

[1] If the potential to apply correction factors is included for work approvals, it is suggested that relevant Work Approval Holders are provided with a nominated period (12 months) to supply evidence to support a correction factor and the NSW Government with a nominated period (6 months) to determine the application for correction factor.

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2. Complicated Terminology of Work Approval Conditions

Confusing / Unclear Conditions of Work Approval

The standard conditions relating to metering requirements are complicated, filled with legal terms and jargon and difficult to understand. Many refer back to specific Parts, Chapters, Sections or Clauses of the Act(s) or Reg(s). With the referenced statutory document, the relevant information may not be clear or potentially require a more detailed understanding of the legislation to interpret correctly.

The natural response where information is not clear is to ignore or apply existing (potentially incorrect) understanding.

Further, some Work Approvals include (or appear to include) contradictory conditions with reference to requirements for logbooks, non-telemetered metres and metres with telemetry.

Even after reviewing multiple times, I remain uncertain as to whether telemetry is or isn't required?

Recommendations

2.1. The presentation of conditions should be reviewed and the language significantly simplified.

2.2. Alternatively, an easy-to-read guideline should be prepared which identifies the critical standard conditions and discusses how the relevant legislation relates to these and should be applied. Worked examples would be helpful.

3. One Size Fits All

Disproportionate Burden on Low-Risk Water Users

The NUM Policy reads (p. 19):

> *All water supply works require a meter unless an exemption applies. There is currently a work size-based exemption, which links the requirement to have a meter to the risks of the individual work and the physical ability to take water (regardless of access licence shares or volume of take).*

Exemptions based on pump size alone are overly simplistic and do not reflect practical applications / impediments, e.g. draw of water from quarry voids, nor accurately reflect level of risk associated with water extraction. For example, small pumps which draw continuing volumes of water from high-risk water sources present much great risk than larger diameter pumps drawing water intermittently from lower risk water sources.

Further, there is little information as to how risk to water sources is defined or calculated. There is reference to 'at-risk' water sources but nowhere else is the assessment of risk identified or discussed. The lack of reference to the NSW Aquifer Interference Policy in identifying risk and setting thresholds for monitoring and recording is of concern.

The implementation of less prescriptive measurement standards as nominated in 'Possible Responses' on p. 20 of the Review is supported in principle. Volume based

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thresholds as presented in *Table 3* of the Review provide a more reasonable approach, however, we would suggest additional caveats and exemptions apply.

Recommendations

3.1. Add a classification of water extraction for voids (and any other water extraction drawing from mixed water sources) (refer also to **Recommendation 1.1**).

3.2. Add alternative reporting requirement for 'mixed' water sources, e.g. monthly reporting applying approved water balance assessment methods. Approval could initially involve calculations as per original assessment/approval with requirement for regular (5 yearly?) audits (refer also to **Recommendation 1.3**).

3.3. Consider reference to the NSW Aquifer Interference Policy which allows for application for exemption where minimum impact thresholds are not exceeded.

3.4. Provide information on, access to and regular updates regarding 'At-risk' Water Sources. This should include easily assessable maps and descriptions, rationale for classification, comparisons of allocations to limits.

3.5. Provide detail on how the level of risk is attributed to a water user or water source.

3.6. Discuss and make clear the relationship between the Aquifer Interference Policy, which addresses impacts on aquifers, and the NUM Policy.

3.7. Allow for relaxation of metering / recording requirements for high volume / low risk water users, i.e. adoption of the water use attestation model discussed in pp 28-29 of the Review

3.8. Consider the application of exemptions where low impacts are demonstrated by assessment against the Aquifer Interference Policy.

4. Focus Questions

The following considers and responds to the focussed questions included in the Review.

Question	Response
Ensuring that metering requirements only apply to works taking water	
What would make it easier for water users to give government this information?	1. Identify voids or other open water works as a separate 'work type' in the NUM Policy (and relevant legislation) 2. Allow for exemptions from prescribed metering requirements of the NUM Policy for voids and other works where there is approved mixing of licensed and unlicensed water sources. 3. If not exempt, allow for post meter correction of water extraction to account for supplementary inputs and losses of water. 4. Simplify or better explain he conditions of Work Approval relating to metering. Avoid cross-referencing of statutory or

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	other documents as these are complicated legal documents which are difficult for the lay person to understand.
Reviewing metering requirements to target risk more effectively	
Should there be flexibility in metering and measurement standards reflecting risk to water sources, or should there be one standard across the board?	5. Yes. Refer to Responses 1-4 with respect to mater of Water Supply Works such as voids which accumulate both licensed and unlicensed sources of water. 6. The current approach does not adequately consider the relative risk levels of water extraction. 7. There is a lack of reference to the NSW Aquifer Interference Policy (for groundwater extraction) which should provide guidance on risk level of extraction.
Would it be easier to understand and comply with metering rules based on entitlement or volume of take than the current approach based on infrastructure size?	8. Yes. However, the volumetric approach still does not fully address the matter of risk and would potentially impose onerous metering and recording / reporting requirements on low risk / higher volume users, while reducing the requirements for high risk / low volume users.
If a volumetric approach was to be implemented, should it be consistent across the state, or tailored by catchment to reflect the different water use behaviours and water management risks in different areas?	9. This should be tailored by catchment or water source. 10. The requirements could then reflect the level of risk associated with different water sources. 11. This should be accompanied by better distribution of information on how risk is identified, assessed and applied across water sources in NSW.
What are the practical implementation challenges that water users might experience in complying with metering requirements based on volume of take or entitlement?	12. Refer to discussion on mixing of licensed and unlicensed sources of water accumulating in voids or other open water works.
Are there any issues specific to different industries that take water under a licence that should be considered in relation to the possible options described?	13. **Extractive Industry**. Void spaces created by quarrying may accumulate groundwater (or surface water) which requires Work Approval and water access licensing. As discussed above, extraction limits are traditionally set based on water balance assessment accounting for multiple inputs and losses. The current NUM Policy does not allow for these supplementary inputs and losses to be accounted for. 14. Under current requirements, operators either cannot comply with extraction limits or will have to account (and pay) for significant volumes of non-licensable water. 15. As noted previously, identification of voids as a separate work type is recommended.

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	16. Voids could be excluded from the NUM Policy (with separate conditions / arrangements conditioned), or included in the NUM Policy with specific exemptions applied.
Revisiting installer requirements to accelerate progress	
Who should install metering equipment?	17. This should be open to anyone with appropriate skills. 18. Perhaps a simplified course (or demonstration of appropriate qualifications) for those with existing / relevant trade could be offered. 19. More resources in government allocated to auditing of meters.
Do you think there would be benefits from government involvement in the DQP market? For example: o *if government contracted and coordinated DQP services then passed on the costs* o *if government provided fee-for-service DQPs?*	20. Possibly through creation of web-based system/portal where jobs can be raised (by water user) and selected and bundled to create maximum cost efficiency for DQP / other installer. 21. Portal should allow for multiple DQPs / installers to select and bundle jobs before providing quote to water user. 22. Government could have a concierge role in bundling jobs / referring to DQPs.
What forms of further training or support would make it more viable for already qualified DQPs to actively participate in the market?	23. Refer to 18.
Is there benefit in revisiting the skill sets and training required for DQPs? Are the current training and certification requirements limiting the market or are the other factors more significant?	24. Yes. Refer to 17 – 19.
Making data systems and equipment standards more fit for purpose	
Would separating the requirements for meter installation from data loggers and telemetry be beneficial? Would an extension of the compliance timeframes for data logging requirements be helpful?	25. Yes. There is certainly a benefit in reducing the reliance of the NUM Policy on LIDs and telemetry. Frankly, there are not enough resources amongst the water users, industry or government to implement the NUM Policy in its current form. 26. Yes. Allow time to determine which users should be required to operate with telemetry and which with other recording requirements.
Would government support for rolling out data loggers and telemetry be beneficial?	27. Unsure. Doubts regarding resourcing within government.

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	28. Would those who have undertaken works (at own cost) be reimbursed?
What are the benefits and risks if government was more prescriptive about the suitable products / technologies and combinations of meters and data loggers?	29. Do not agree with reducing number of approved data loggers. 30. Listing of approved combinations would assist, however, vigilance from government would be required to prevent price gouging by suppliers. 31. Should be emphasis in constantly broadening the combinations which can be used.
Do water users want access to more frequent meter data?	32. No comment
Is it important to be able to use existing telemetry systems that are currently excluded (e.g. SCADA)?	33. No comment
What forms of training and support would make it easier for DQPs to navigate data logger and telemetry installation?	34. Refer to 18.
Improving water use reporting	
How can we improve the mechanisms for water use reporting?	35. The approach to rolling out and explaining how to record water take was poor. 36. Letters issued were poorly addressed and referenced. These did not provide clear guidance on how to access and complete recording. 37. Considered together with difficult to understand conditions of approval (which also were presented with hard to understand cover letters), and hard to navigate website with the reporting portal buried in a hard to access section of the site, it is generally confusing process trying to find and then record data. 38. The presentation of conditions should be reviewed and the language significantly simplified. 39. Alternatively, an easy-to-read guideline should be prepared which identifies the critical standard conditions and discusses how the relevant legislation relates to these and should be applied. Worked examples would be helpful.
What would make it easy for water users to complete an annual attestation of the volume of water taken and how it was measured?	40. Provide clarity on which water users do and do not qualify for 'attestation' approach. 41. Nominate a period for application to this method.

Regional Group Australia
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20L Sheraton Rd, Dubbo NSW 2830, Australia
Telephone 1800 GRAVEL
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	42. Create clear guidelines for application. 43. Create clear guidelines for accepted measurement methods.
Ensuring a measurement pathway for take of overland flow in unregulated water sources	
Will this proposed change enable appropriate measurement and reporting of overland flow take in unregulated river entitlements?	44. Refer to discussion / recommendations relevant to accumulation of water within voids.
Strengthening compliance and enforcement powers	
Do you think the suggested improvements to compliance and enforcement tools will clarify the expectations on water users and make the system fairer?	45. The Review appears to put the burden for faulty equipment, or bad luck entirely on the water user who may have limited control of timing.

Regional Group is appreciative of the opportunity to provide feedback on the NUM Policy and is more than happy to contribute to improvements. Please do not hesitate to contact Alex Irwin on 0436 276 972 or alexirwin@maasgroup.com.au or myself should you wish to discuss anu of the feedback ore recommendations provide in this document.

Yours Sincerely,

Steve Guy

General Manager

Planning & Projects

Ph: [redacted] or [redacted]
Email info@regionalgroupaustralia.com.au

Non Urban meter review discussion.

- If it is 95% statewide, would likely benefit coastal smaller users. Not sure that will get through, I would say catchment based 95%.
- 100 ml size threshold is about the figure I thought to be commercial. Much easier to police by NRAR and less confusion from users, and removes confusion on well/bore issues. If you have 100ml of water you need to meter.
- Users under the threshold could self report usage, but needs some form of measuring usage. Could be a datalogger, power usage, APP, or A QR code system similar to COVID sign in. System is already in use and could be tailored simply. If you need to use paper based log books, it is user pays for someone to upload data. This could be rolled out to all users initially prior to getting meters installed, then when installed you would move to that system.
- Needs to be 1 standard across the state for volume limits, however I am not sure we could get this, I think it will be catchment based.
- DQP was relatively easy, however too much time and resources was focused on OHS and not as much as training to install meters, and loggers and how to use portal, as course is a national accreditation so not state specific, all states are different.
- Some/most equipment is not fit for purpose and are breaking/malfunctioning. Some due to equipment not up to the climate, or not installed correctly. Could be overcome by having better training for installers on correct installation. Vibration seems to be a big issue.
- There is a lack of workers to do anything. Needs to be financially lucrative to get people from other trades and industries interested in installing them.
- I cant get onto the virtual marketplace. Tried numerous times and contacted DPIE, but issue still not resolved.
- Meters need cleaning every few years, well inside 5 years for re-validation. Perhaps allow a DQP ability to clean a meter without re-validation.
- Initially allow a user access to a platform where they can upload site information, such as mainline, location, pump size, flow, and photos of site so a DQP can get basic information without an initial site visit. Most users want a quote free of charge, but this is time consuming to undertake by the DQP. Perhaps this or a govt funded initial visit by a DQP

to look at site. This will remove initial burden from the DQP. Government could fund officers to do the initial site survey also, but would be hard to attract people to do this.

- Government would likely be expensive for fee for service, this could open the door for large companies to bring in foreign workers who do not understand our ways of doing things. This has been an issue with many government funded activities like childcare and NDIS where corruption occurs.
- Course was easy to do, but too much on OHS and not enough on installation. Seems it is left to manufacturers and suppliers to train.
- Have a set of design drawings and installation demos on how to do it correctly (you tube would be great) I get tutorials on everything off there. This would show best practice installation. Some manufactures have this, but it needs to specific for NSW.
- 5 yearly validation is expensive, but something needs to be done for accuracy.
- Government initially pays for DQP service (ensures they get paid promptly) and this can be paid back users over time, or potentially a surrender of some of the allocation to cover the costs?? This takes away the issue of people not paying their bills. Could add cost section to DQP portal, and installer gets paid straight away.
- Telemetry system not fit for purpose. Better systems around. It is a monopoly at the moment
- Allow meters to be in place first and follow up with telemetry and loggers, these could be a one size fits all system, meters need to be site specific, but not much with loggers and telemetry (they either have signal or not) As this is a difficult task for DQP's apparently! A group of trained people specific for this task could be employed to do this, once meters are in place. Some DQP's are great putting in meters but not good with technology, and some may be the other way around. Have specific people for specific tasks. Or Govt to take over telemetry installation. Once meter is in place, could use APP based reporting or QR code as mentioned earlier, until telemetry is available.
- Difficult to get meters repaired. Allow a temp meter to be placed, or use a datalogger or some other form of measurement whilst it is getting fixed. 21 days is not long enough after initial discovery.

- Need NRAR to have standard penalty codes like speeding fines. This will make it easier for them to penalise people without having to go to court for minor breeches.

REVIEW OF THE IMPLEMENTATION OF THE NSW Non Urban Metering POLICY

The NSW irrigation industry has invested significant resources, including finance and time, into the new metering reform. It is essential that this review find practical and efficient methods for policy implementation, as opposed to back peddling on metering requirements.

Provide an automatic temporary exemption for known barriers

1) A list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome (noting the Minister may revoke or amend the exemption at any time).

2) A mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the DQP to formally register the circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

Pathway to nominate active works

3) A pathway for water users to identify the works used to take licenced water from a water source. The process must be:
   a) Cost free;
   b) Easily reversible.

4) A clear criterion as to what constitutes an 'active' or 'inactive' to ensure requirements are well understood. This be undertaken, in preference, with a specific site visit by an officer, or a phone call from an officer to establish if the licence is taking water or not, and if possible what equipment is being used to take the water.
5) If reporting is to be left with the land owner, than it should be assumed that if a user has **not** reported that a site is **inactive, (after a free amnesty period), then it is deemed active and liable for a spot check.**

Remove inconsistent metering conditions on licences

6) The removal of pre-existing specific metering conditions on licences, and instead refer to one instrument. Ensuring all metering requirements are captured under one policy instrument, removes risk of inconsistency and confusion. There should also be a "to the extent of any inconsistency" clause to provide further assurances on this.

7) The resolution of all inconsistencies between licence conditions, Water Sharing Plan and the current Non-Urban Water Metering Policy, particularly noting that:
   a) water users with surface water pumps less than 100mm and groundwater bores with an external diameter bore casing less than 200mm are excluded; **If it moves to a volume-based approach statewide, will this alleviate this issue and confusion.**
   b) compliance date for coastal NSW is 1 December 2024, considering possible changes, this should be extended a further 12 months from the date of any legislation changes.

Metering requirements that target risk

The method of determining risk, should move to a volume-based approach, and 100 ML seems to be a less confusing option. I am aware of users and NRAR officers, who have had no idea how, or where to find the size of their pumps, and this would also remove the issue of Bore/Well sizes, and submersible pumps. It is far simpler to police and for users to understand.

   c) To be considered in conjunction with a further 12-month extension to 1 December 2025 to address:
      i) Concerns that the current 1 December 2024 compliance deadline is not sufficient time to effectively implement and react to proposed Regulatory changes as part of this metering review.
      ii) Address DQP shortages in coastal catchments.
      iii) Improvement of drought conditions predicted to affect coastal catchments throughout 2023-24, hindering in-situ meter testing particularly in unregulated catchments and aquifers, where cease to pump rules may come into force.
      iv) I**mplement an effective education strategy engaging all coastal water users on their water use requirements including water ordering, water metering, and data logging**.

8) Practical and simple reporting requirements - Requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

9) Under the current work size-based model, review the list of exemptions with the goal to provide less costly options for smaller and low-risk water users across NSW, particularly noting smaller and low risk water users in at risk water sources. This could be a less proscriptive meter, the use of a power meter to calculate usage, as is done the Hunter Regulated system at present, and has been working well for many years, or a simple data logger that triggers each time the pump is used, this could be uploaded to a mobile device via blue-tooth and sent to WaterNSW automatically. This technology is presently available and cheap to implement.

10) Provide an extension for water users currently eligible under the "Small, low-risk works used solely to take water under a stock and domestic water access licence" that lapses on 1 December 2024. This should be for a minimum of 5 years. **This should be advised to water users, as that will determine if they may be best to invest in a 4747 meter now, rather than implement a lower proscriptive measurement process that may be non compliant in just a few years.**

11) For the purposes of calculating, and capturing water use, water taken or allocated under a stock and domestic licence, and equipment used for this purpose, should be exempt from this calculation.

Revisit meter installation and certification requirements

12) The current monopoly of DQP training and certification requirements is expensive and not fit for purpose. State based systems using TAFE may be beneficial in training DQP's

13) Due to the current market failure, water users feel the status quo is not effective, largely due to lack of financial incentive and rigorous requirements for DQPs that makes it not worthwhile, resulting in the shortfall of DQP services.

14) Government financial support would be welcomed to assist new startup DQP services in regions. It is costly to purchase the equipment and expertise to become a meter installer, and history of using established irrigation businesses has failed. There needs to be a system in place for specific DQP based businesses. Also temporary accommodation in regional and remote areas is becoming harder to find. DQP's will require mobile accommodation also to fulfil the roles.

15) There are worker shortages in many regional areas, this will not address that issue. If still within the private-sector, it will be imperative that there is adequate financial incentive for these services to be undertaken (as at present, many service providers – such as engineers, surveyors, electricians, etc. – are in high-demand and can profit more highly from undertaking their standard business services). Currently DQP's offer meter installation as a service to existing customers, but the time taken for the financial reward is not justifying the time taken to process a meter instal.

16) Enable less prescriptive installation pathways for closed conduit meters for smaller and low-risk water users. This may include a simple datalogger that can be uploaded easily, a power meter reading calibrated to water use, or a system similar to the QR code check-in we all used during COVID.

17) A review of maintenance requirements, such as in-situ accuracy testing, which are not mandated under the national metering standards and are not possible under the current allocation of resources.

18) An increase in DQP support, particularly with burdensome administrative tasks, with a preference to streamlining tasks.

19) The necessity for re-validation of metering equipment be removed for simple maintenance, such as cleaning and battery replacement, providing it is done by a DQP.

20) Allow water users and /or a technical representative, or department official, an option to complete a site survey for each site. This would include pump size, estimated flow rates, mainline size, photographs of infrastructure and site. This would allow a DQP to provide an estimate/quote for the installation without an initial site visit. This could be uploaded to a portal such as the virtual marketplace, where DQP's could contact the user. This may allow DQP businesses the opportunity to manage several installs in close proximity. This should make it more flexible and efiicient for the DQP and the water user.

21) Moving on from that allow the user or a representative, to install their own meter, without the necessity for a DQP, but to become compliant the meter must be validated by a DQP.

Revisit management of telemetry systems

22) The single source of truth for water users is their water meter. The additional responsibility to transmit water extraction data from a meter to government (which can also be accessed by the water user) should be held by the government. Possible ways to achieve this would include:
    a) Government coordination and bulk procurement, installation, maintenance and ownership of all data-loggers and systems (unless the water users opts-out and selects private ownership).
    b) It is also our view that until the Government backend system (i.e. the DAS) is operational and able to receive data, it is not appropriate for telemetry to be required.
23) If prescribing meter and data logger combinations, the combinations provided must be cost-effective.
24) The installation and functionality of telemetry systems needs to be de coupled from total compliance and should be an add on. Once a meter is installed and is validated the user should be deemed compliant, thereby if no telemetry is in place, or it malfunctions the user is still deemed compliant.
25) Telemetry is an aid for reporting water use and should be at the user's discretion to install to stop the need for physical water use reporting and ordering, and not a mandatory system. This will reduce the cost of initial installation and can be added later.

26) If it is to be made mandatory, use a volume-based approach (users over 500ML) in the first instance, and this can be moved over time once the system and equipment are found to be fit for purpose.

Practical reporting process: general water usage reporting

27) WaterNSW to send out a monthly and/or annual automated message (water users to nominate for email or letter) prompting water users to log their water use. Include the due date, a link to where this data can be entered online, or a PDF logbook print out that can be mailed in. This requires an up-to-date database of customer details, as well as correct licence information on the Water Access Licence Register.

28) Practical and simple reporting requirements – I do not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

29) WaterNSW should be assisted with funding to develop a One Stop shop website and App based model where water users can report use, and ordering, along with any licence changes. **This should happen as a matter of urgency.**

Practical reporting process: faulty meters

30) Due to the ongoing implementation barriers (e.g., access to DQPs), we strongly do not support amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

31) An extended s91i self-reporting form valid for a 6-month period to reduce administrative burden and simplify the current monthly reporting requirements.

Review cost-share arrangements

32) The NSW Government must pay for their own reform, upgraded due to the government failure to deliver compliance services that water users paid for in previous determination periods. As the industry has been made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

33) DQP's are concerned they may not be fully paid or paid at all for meter installs. There needs to be mechanism for initial payment from the government for a validated meter install. The

government can take the risk and receive the funds back from the user. That may include a pay off period over the life of the meter, a one-off payment, extra water fees, surrender of some water entitlement which could be traded or used for environmental benefit.

Develop a clear communication strategy

34) Water agencies to develop a clear educational approach to informing coastal NSW about the metering reform and their upcoming compliance date of 1 December 2024;

35) Water agencies to develop a succinct booklet on how to comply with the meeting reform to mail to coastal water users or have available at ServiceNSW locations;

36) Water agencies to organize an in-person consultation services such as a roadshow with presentations, and/or 1:1 information sessions located in community hubs such as ServiceNSW; and community facilities.

37) Water agencies to collaboratively develop a 'one-stop shop' website with clear links to information (e.g., guidance tools, factsheets) relevant to each stages of the metering journey.

MDBA Funding

38) In the Basin there has an opportunity for users to apply for government assistance in installing meters and telemetry. In the northern basin at present, there is $12.5 million set aside for this in NSW. and in the past the whole basin has been able to apply for grants and rebates from the federal government, however coastal water users have not been a party to this. We are bound by the same rules, but do not have access to similar funding assistance.

Penalties

39) We all realise that not everyone will adopt the reform without some form of penalty for not moving forward with an installation. This may include increased costs for non-metered water to encourage installation. The funds raised for this could be used to assist in the education and employment of funded positions to train water users in the compliance of their water use.

40) As an incentive to become compliant, those users who do not install meter can be billed for 100% usage, regardless of their reported volume of take.

Thankyou for this opportunity to comment on this meter issue. I have been working the inequities for many years, with discussions to department officials, and politicians.

Should you require assistance in the policy or the practicalities involved, feel free to contact myself on [redacted] or [redacted].

After selling our farm last year, I am still available for any consultation or employment opportunities in the policy roll out.

I have worked closely with NSWIC and NSWFA in writing their submissions, and as a former irrigator, and now DQP, I feel I could be of benefit to the department in making sure the problems associated with the policy in the past can be rectified.

Scott Wheatley

Genine Somers

From: [redacted]
Sent: Tuesday, 28 November 2023 12:19 PM
To: [redacted]
Subject: Review of the NSW Non-Urban Metering Policy – November 2023

From: Stewart Ewen [redacted]
Sent: Saturday, 25 November 2023 9:40 AM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: Review of the NSW Non-Urban Metering Policy – November 2023

I write to address the,
NSW Government
Department of Planning and Environment - Water Group.

The purpose of this email is to fully endorse the Hunter Valley Water Users Association's submission for the Metering reform.
The submission has been well considered and I respectfully request the recommendations be adopted.
Regards
Stewart Ewen OAM
[redacted].

[redacted]

From: [redacted]
Sent: Monday, 20 November 2023 2:01 PM
To: [redacted]
Subject: FW: Non-urban metering review

From: [redacted]>
Sent: Tuesday, 14 November 2023 12:04 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: Non-urban metering review

Hello
Just listened into the 14th web session for coastal non urban northern nsw region metering session, it was very good , thankyou

My input will be brief

1) im a small water license holder 9ML license from a underground source , my pump and metre have been in place for over 10 years

2) it is a non compliant metre[Ive been advised] although I have found it to be very accurate non the less , but if I were to follow your suggested

compliance rules at the moment foe next year 2024 for this zone the cost would be way too high to make it affordable or even workable with
a compliant meter and LID etc , my intake pipe from the source is 50mm and it feeds just 3x ¾ inch garden taps on the 5 acre property
used for watering citrus and tropical fruit trees (about 15) and a small 50m2 mixed vege garden lot in total , this produce
is sold at a stall out front of my property and amounts to just a few hundred dollars a year gross !

3)My annually usage is barely more than 600,00 litres a year AVERAGE no where at 9ML and its never been more than 1ML, but the license came with the property and
Its asset for the future and currently at times in dry spells

YOUR SUGGESTION FOR VOLUME BASED THRESHOLDS seems fair , ie the user pays according to the take ,but
Im suggesting what ever method is adopted at a 10ml or less ,a pump/meter/LID cost of whats been proposed is unworkable prohibitve
And exorbitant for such small usage

Also reporting the usage would be much easier if we were prompted by EMAIL regularly to report either quarterly or annually
FROM YOUR DEPARTMENT (THE Tax office /ATO DOES THIS QTRLY FOR BAS] it just reminds us to report timely
And perhaps a photo of the metre reading and a signed declaration when lodging to make it more effective and Less likely to be misrepresented

Just a few thoughts
From a small license holder

Thankyou

[redacted]

[redacted]

From: DPIE Water Enquiries Mailbox
Sent: Friday, 17 November 2023 4:29 PM
To: Water Metering Reform NSW
Subject: Non-urban metering review

Dear Metering team,

We have received the following customer enquiry for your action.

CUSTOMER ENQUIRY
Name: [redacted]
Email: [redacted]
Phone: [redacted]
Enquiry: Non urban metering review feedback as detailed in the email below.

Kind regards,
[redacted]

[redacted]l
Water Enquiries Team

Water Group, Department of Planning and Environment Ph 1300 081 047 | E Water.enquiries@dpie.nsw.gov.au Monday to Friday 9am-5pm water.dpie.nsw.gov.au

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

-----Original Message-----
From: [redacted]>
Sent: Wednesday, 15 November 2023 7:10 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: Non-urban metering review

I have 30 megs of general security water and 2.5 megs of supplementary water this is delivered by a 65 ml centrifugal pump with a flow meter I'm also charged a minimum fee of $219.57 and a annual scheme management charge of $54.79 this is pro rata for 273 days on my supplementary license and a minimum adjusted charge on my general security water as well as ongoing costs now I'm being told I have to comply with telemetry requirements I have had a quote to do this which was $9,636 I also have to clear tree canopy to make sure of accessibility for telemetry this is in the vicinity of $1,500 as well as the on going service charges to comply with telemetry regulations as you can see this is not feasible for such a small amount of water and the government has stated numerous times in there roll out this was not to be detrimental to small licence holders I also have a issue with cost of $609 to decommission my pump as well as $609 fee again to activate pump at a later date If I wish to do so I also have access to basic rights water that if pump is decommissioned this will not be available to me and I believe we still have to report monthly even though we aren't taking BLR water I don't see why we should have to report for not taking this water when I have never exercised my right to do so in 43 years I have owned my property it's of great concern that these new regulations will devalue my property and make it near impossible to sell Sent from my iPad

[redacted]

From: [redacted]
Sent: Monday, 27 November 2023 10:18 AM
To: [redacted]
Subject: Non-urban metering review

From: Mr [redacted] >
Sent: Sunday, 26 November 2023 9:31 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: Non-urban metering review

Submission into Non-Urban Metering inquiry

I have very little to say about the details of who has and has not a meter. But reading the background paper, I am astounded that the Department granting and managing water licences does not know how much water is being taken from our inland rivers. There are users with 500 mm pumps that are not being measured. How has this been allowed to happen? I am a member of the Inland Rivers Network, and for years we have been making submissions about the amount of water extracted for various purposes under Water Sharing Plans. But DPIE Water do not even know how much is being extracted, so what is the value of Water Sharing Plans?

My suggestion is that the responsible agency create a staged no meter – no pump policy, starting with the biggest water users and working your way down.

Regards
[redacted]

NSW Government

Department of Planning & Environment – Water Group

E: water.enquiries@dpie.nsw.gov.au

26th November 2023

Review of the Non-urban Metering policy – November 2023

I appreciate the opportunity to participate in the review.

I irrigate from the Hunter tidal pool. The tidal pool represents 3.7% of the total licensed amount of water in the Hunter catchment.

I understand the issue that metering is to help with understanding what water is taken to ensure compliance and to help with policy making. We need to install 6 meters under the current rules. All pumps are under 100mm in outlet diameter but we have multiple pumps, which are all used.

Policy

Our group, the LHAWUinc have had a number of meetings where metering has been the topic and it does not seem that many people will need to meter, because they have a single pump with the outlet less than 100mm.

Therefore the information collected would be of limited policy making use, because of the number of meters installed.

A large number of water users use electricity meters to measure water taken from the water sources. This has been a reliable, fit for purpose and inexpensive method for tracking water use. This still requires water users to meet the recording and reporting rules. Smart meters may be able to act as a data logger and telemetry resource, as many electricity meters have the capacity to report energy use remotely.

A process using smart electricity meters would capture 95% of data and hence be an effective tool for policy making.

Smart Electricity Meters

Smart Electricity meters offer more choice on how to comply & maintain the integrity of the system.

Smart electricity meters can be used without significant delays to compliance. These meters are out of flood level.

The infrastructure is in place, we would just need to purchase smart meters which is significantly less that the water meters & no construction costs.

Duly Qualified Persons

We operate on a flood plain. We frequently remove our pumps from the river banks. Under the proposed rules we would need a DQP to recalibrate the meter after every such event. Not only would it be very expensive for us, there would be a serious shortage of DGP's to meet the demand after flooding.

Lostock to Glennies Creek Pipeline

We constantly monitor the salinity in the river system so we are applying water with low enough electrical conductivity not to damage the crops and the land.

There is uncertainty as to the impact on the salinity in the tidal pool if the proposed pipeline progresses.

Water sharing plan – cease to pump

The previous proposed cease to pump rules would have seriously curtailed the opportunity for us to irrigate. Why would we put 6 meters in when we would have limited ability to irrigate and the quote I have received is for $9,000 per site.

In Summary

1. I agree with the principal of measuring water use for both compliance and policy making reasons.
2. I agree with the exemption level of meters with less than 100mm outlet.
3. To gain the information required for policy decisions, I believe that smart electricity meters could be used. Further, there needs to be a simplified clear form to report usage.
4. We are in a flood plain so our circumstances differ with regard to the number of times our pumps need to be removed from the river bank. Under the current proposals this would put undue costs to us,the farmer, & undue pressure on DQP's.
5. We have a lot of uncertainly on the future of our water source due to the proposed Pipeline and "cease to pump" rules. We would therefore request compliance date be extended until these issues are resolved.

[redacted] – 26.11.23
"[redacted]"
[redacted] NSW 2421

Department of Planning and Environment

dpie.nsw.gov.au

Review of the non-urban metering framework

Issues and options paper

October 2023

Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land, and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Published by NSW Department of Planning and Environment

dpie.nsw.gov.au

Review of the non-urban metering framework

First published: October 2023

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Cover image: Image courtesy of the Natural Resources Access Regulator. Tweed River, Australia.

TMP-MC-R-DC-V1.2

Contents

Introduction

In 2018, the NSW Government introduced a new framework to measure and meter non-urban water take, to be rolled out in stages over several years. The framework is consistent with national non-urban metering rules and guidelines, agreed upon by all Australian states and territories in 2009.

This was a commitment under the government's Water Reform Action Plan (WRAP), released in December 2017 in response to the *Independent investigation into NSW water management and compliance* conducted by Ken Matthews AO (the Matthews report) and the Murray–Darling Basin Water Compliance Review (the MDB Compliance Review).

Non-urban water metering refers to the measurement of water taken from regulated rivers, unregulated rivers and groundwater systems under a water licence. It excludes water taken under a floodplain harvesting licence as this take is measured under the floodplain harvesting measurement framework.

The purpose of the non-urban metering framework is to improve the standard and coverage of non-urban meters in NSW. Under the rules, about 95% of licensed water take capacity in NSW must be fitted with accurate, auditable and tamper-evident meters.

While there is overwhelming support for non-urban metering, compliance rates are not where they should be. More than 90% of large water users with surface water pumps larger than 500 mm have accurate, tamper-proof meters in place. However, thousands of smaller water users have not.

There are valid reasons why metering obligations are not being met by some water users. Record-breaking floods, market barriers around access to certified meter installers and validators (duly qualified persons), supply chain issues created by the pandemic and prescriptive requirements, have created obstacles.

The NSW Government is committed to addressing the low compliance rates and looking at ways to make it quicker and easier for all water users to comply. While significant strides have been made, there is still more to do based on the evidence and lessons learned since the rollout began five years ago.

A return to dry conditions is predicted and we know that communities across NSW will continue to face more extreme climate challenges in the future.

It is critical that water take is measured consistently and accurately. We can't manage what we can't measure which is why the non-urban metering framework is vital to ensuring a sustainable future for all.

Purpose

The NSW Government remains committed to full implementation of the recommendations from the Matthews report, including the principle of 'no meter, no pump'. It is five years since the reforms were introduced and it is time to review and assess the progress that has been made so far.

The purpose of the review is to look at how to accelerate implementation of the reforms to achieve the policy objectives and identify practical changes to the rules to improve compliance.

This discussion paper provides an overview of what we understand to be the most significant barriers to implementing the rules and describes potential options to address the key issues. This is based on feedback received over several years of working with water users, metering suppliers and installers to implement the rules.

The review seeks to identify changes that will:

- help deliver the reform faster than the current trajectory
- create opportunities to reduce costs
- make the rules easier to understand, implement, comply with and enforce
- make the system work more efficiently.

Any adjustments to the regulatory settings should:

- apply a risk-based approach
- focus on outcomes, rather than prescribe procedural requirements that may create barriers to compliance
- offer water users more choice about how to comply, where possible, while maintaining integrity of the system
- take advantage of the Natural Resources Access Regulator's (NRAR) capabilities in remote intelligence gathering and risk-based proactive audit.

While the review is underway, there will be no change to the regulations and compliance expectations that are already in place.

NRAR will continue to take a fair and proportionate approach to enforcing the rules.

Any changes resulting from the review will be about making it easier for water users to have a meter. The NSW Government remains committed to the principle of no meter no pump. If a licence holder has faced challenges in complying by their deadline and can show evidence of their efforts to comply, NRAR will take that into consideration.

Your views

Your voice is important. This discussion paper provides an opportunity for everyone to have their say.

Your views will help shape practical changes to the non-urban metering rules so that we can improve and speed up compliance.

We want your feedback on the issues and options outlined in this discussion paper to address the obstacles to implementation.

Feedback on the proposals can be made online at water.nsw.gov.au/metering.

Next steps

After the public consultation period, we will consider and incorporate your views, ideas and concerns into the review recommendations.

We will then:

- publish a 'what we heard' report summarising your views
- provide a final report of the non-urban metering framework review to the Minister for Water.

The objectives

The NSW Government is committed to increasing meter coverage as quickly as possible to achieve the principle of 'no meter, no pump', as recommended by the Matthews report and the MDB Compliance Review.

However, the non-urban metering framework recognises that it is not practical for meters to cover 100% of water take, as this would come at a cost that may outweigh the benefits, especially for small water users.

The non-urban metering framework is guided by four objectives (Table 1), which describe the practical application of the 'no meter, no pump' principle. These are to ensure that:

- the vast majority of licensed water take is accurately metered
- meters are accurate, tamper-proof and auditable
- undue costs on smaller water users are minimised
- metering requirements are practical and can be implemented effectively.

This section provides a more detailed description of what each of these objectives means in practice, to guide this review.

Table 1. Non-urban metering objectives explained

Non-urban metering objective	What does this objective mean?
The vast majority of licensed water take is accurately metered	The framework aims to achieve the principle of 'no meter, no pump' by requiring accurate metering covering 95% of infrastructure capacity to take licensed water across NSW. The objective also specifically refers to *licensed* water take, which excludes metering for works solely taking water under basic landholder rights. This aligns with the objectives of the National Water Initiative.
Meters are accurate, tamper proof and auditable	This objective informs the meter standards required under the rules. Meters must be: • accurate – where possible, achieving +/-5 % accuracy in the field at the time of validation • tamper evident – installed in a manner that prevents the metrological performance and/or overall operation of the meter from being interfered with • auditable – the meter and data outputs can be inspected and examined to ensure compliance.

Non-urban metering objective	What does this objective mean?
	This aligns with NSW's commitments to national rules and guidance for non-urban metering (Metrological Assurance Framework 2).
Undue costs on smaller water users are minimised	This objective reflects the intention that metering requirements and associated costs should be proportionate to the risk to the water source and that costs should not significantly outweigh the benefits of metering. It also reflects the principle that the 'impactor pays'. This aligns with the *Best Practice Guidelines for minimum metering thresholds* which state: "Basin governments should take a risk-based approach that maximises the measurement of water taken, particularly for high-risk users, and avoids imposing undue costs, particularly for low-risk users. Risks that are relevant to setting the metering thresholds include risks to meeting the environmental, social, economic or cultural requirements for the water, in the local area and across the Basin."
Metering requirements are practical and can be implemented effectively	This objective means that the rules should be: • practical – a meter should only be required on works which take water from a water source and where the take can be measured with a meter • simple – the rules should be easily understood by everyone and therefore enforceable • consistent – the rules should be enduring and not need frequent revisions to operate effectively • standard – the rules should be applied uniformly as much as possible, rather than through bespoke arrangements • flexible – the rules should be focused on outcomes with appropriate flexibility and scope for discretion by the Regulator.

Benefits of metering

Accurate and timely water use data supports a range of critical functions from sustainable resource management to regulatory compliance and policy development, as explained in Figure 1.

This includes river model calibration, setting and managing extractions to water sharing plan limits, and water allocations to ensure responsible and equitable use of water resources.

Figure 1. Summary of the multiple benefits of effective water metering

Key elements of the non-urban metering framework

The purpose of the non-urban metering framework is to enable effective water resource management by improving the standard and coverage of non-urban water meters in NSW.

The framework includes:

- The *Water Management Act 2000:* the Act gives legal effect to the metering framework and imposes a condition on all water supply work approvals requiring metering equipment to be installed, used and properly maintained in connection with the work.[1]
- The Water Management (General) Regulation 2018: the Regulation sets out the requirements that must be complied with[2] by all holders of approvals and licences[3] who are subject to the metering condition. It also defines exemptions from metering requirements.[4] The Regulation defines requirements for duly qualified persons (DQPs) to install, maintain and validate metering equipment,[5] telemetry, record keeping and reporting rules,[6] and a process for faulty meters.[7]
- The NSW Non-Urban Water Metering Policy: the Policy explains the requirements and how they apply.

[1] *Water Management Act 2000*, section 101A.

[2] *Water Management (General) Regulation 2018*, clause 235, 238,

[3] Clause 229 of the *Water Management (General) Regulation 2018* applies the metering condition to licence holders in certain circumstances, such as when an approval exemption applies.

[4] *Water Management (General) Regulation 2018*, clause 230-233.

[5] *Water Management (General) Regulation 2018*, clause 236-237.

[6] *Water Management (General) Regulation 2018*, clause 244, 244A, 250.

[7] *Water Management (General) Regulation 2018*, clause 241-243.

Figure 2. Summary of the key components of the non-urban metering framework

Summary of the key components of the non-urban metering framework

Rules and Pathways		Staged rollout of metering rules is based on risk and geographic location. Compliance pathways: • no meter needed (exempt/inactive) • use existing meter* • new meter needed. **If installed before 1 April 2019 and subject to evidence of accuracy*
Technology		Open market approach to developing metering equipment (meters and LIDs). Requirements to install: • pattern-approved meters (in compliance with AS4747) • approved local intelligence devices (LIDs) • telemetry connection (surface water pumps ≥ 200 mm, voluntary) • tamper-evident seals.
Installation, validation and maintenance		Open market approach Work approval holder engages a DQP to install, validate and maintain meters and LIDs.
Certification		DQPs complete and upload forms and certificates to the DQP Portal on behalf of the work approval holder to demonstrate compliance. Notification of: • intent to install • meter validation • LID installation.
Ongoing reporting		Water take and other information is recorded and reported. • Water take additionally determined by WaterNSW meter read (annual) or • meters with telemetry automatically transmit data to the government's data acquisition service (DAS).

Progress in implementing the non-urban metering reforms

Implementation of the non-urban metering reforms is slower than anticipated (Table 2).

The first stage covering large surface water pumps (Tranche 1) has a 70% compliance rate for active works. While around 90% of surface water pumps greater than 500 mm have accurate meters installed, many of the remaining works not in compliance do not yet have telemetry installed.

The second stage of implementation covering northern inland water users and five large groundwater water sharing plans has only a 25% compliance rate for active works capable of taking water, 21 months after the deadline.

On the current trajectory, it is estimated that it could take another 10 years to achieve full compliance with the metering reforms.

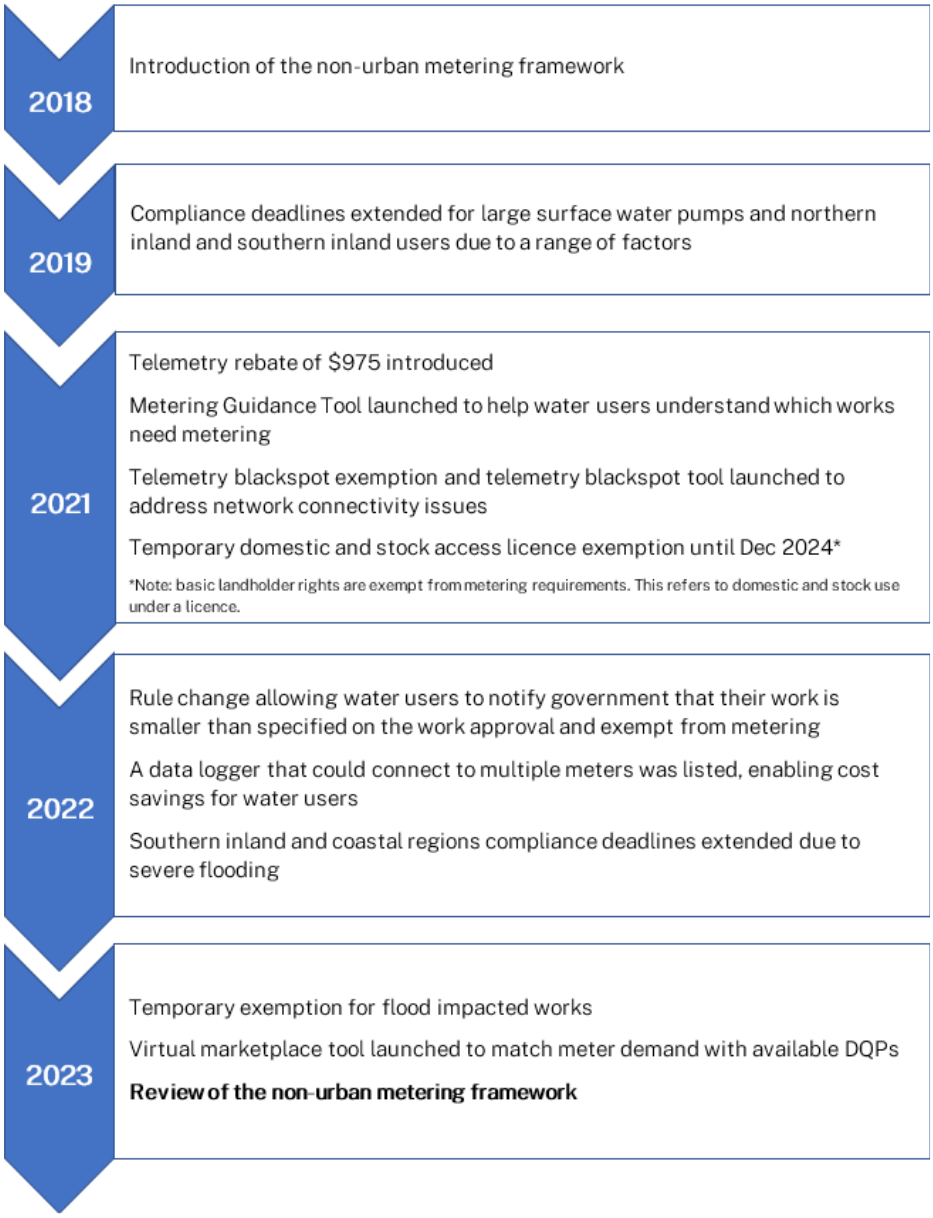
Table 2. Summary of the stages of metering implementation and current data on compliance rates across NSW

Stage	Water users	Original compliance date	Extension (from original date)	Current compliance date	Compliance rate
1	Surface water pumps >500 mm	1 December 2019	12 months	1 December 2020	>70% (data from fieldwork)
3	Northern Inland	1 December 2020	12 months	1 December 2021	25%
3	Southern Inland	1 December 2021	18 months	1 June 2023	38%
4	Coastal	1 December 2022	24 months	1 December 2024	N/A, compliance date not yet reached

Note: This table presents compliance rates for works assumed to be active. The compliance rates exclude works that data systems indicate are likely to be unable to take water and therefore are not intended to be metered under the framework.

The government has introduced initiatives to support the reform rollout and encourage compliance over the last five years (Figure 3). This has included making changes to the metering rules to address issues that have arisen and providing incentives and support to encourage compliance, such as the telemetry rebate.

Figure 3. Timeline of key changes and initiatives



Implementation challenges

What we have heard about barriers to implementation

Not enough active duly qualified persons to meet water users' demand

Water users are experiencing significant challenges in contracting a duly qualified person (DQP) to install and validate meters and local intelligence devices (LIDs) by the relevant compliance deadline.

Disruption due to the COVID-19 pandemic and flooding

The global pandemic resulted in disruption to supply chains which had significant impacts on the supply of metering equipment, resulting in long lead times, and inability to access DQPs due to lockdowns and restricted contact. The backlog generated during this time was substantial.

Severe flooding across NSW also impacted heavily on the metering rollout. Meters were destroyed and damaged and sites couldn't be accessed for equipment installation, maintenance or validation. While the government extended rollout dates, implementation continues to be affected.

Some water users report that it is not financially viable to become compliant

The costs involved are of particular concern to small or infrequent water users. In particular, the costs associated with pattern-approved meters (compliant with AS4747) and additional data logger and telemetry requirements.

Many works that do not take water are shown to require metering

Government data systems cannot identify works on a water supply work approval that do not require metering. These may include unconstructed works, derelict works or reticulation works that do not take water from the water source.

Rules are not always practical or easily understood and communication of the reforms has led to confusion

Water users have expressed concern it is not always clear which water agency they should be talking to; WaterNSW, the Natural Resources Access Regulator or the Department of Planning and Environment (the department). Some water users felt the advice was sometimes inconsistent between the different agencies which led to further confusion about the rules. Concern has also been raised about the way the rules are written; they are not always practical nor easily understood.

Metering requirements for small water users are inconsistent and create confusion

Some small water users have raised concerns they are unable to access the work-size metering exemption because it does not apply if previous water sharing plan conditions required universal metering.

Compliance timeframes are not achievable resulting in stress for water users

Water users have expressed concern that compliance deadlines are unrealistic and unachievable due to external impacts outside of their control such as flooding, supply chain disruptions and difficulties accessing DQPs. Water users say they are anxious they are not compliant because of these issues.

Existing third-party telemetry systems cannot be used to comply with requirements

Water users have expressed concerns they must install equipment, specifically, telemetry-enabled data loggers, that meet the needs of government when they already have functional telemetry systems that are not accepted because of data and cyber security requirements.

Exemptions may result in unacceptable metering data gaps and a perception that many water users are not compliant

There are some concerns that existing metering exemptions will result in data gaps that will compromise the effective management of water resources and detection of non-compliance with the water sharing plan rules.

Measuring overland flow take isn't always practical using non-urban metering equipment

Unregulated river licence holders have expressed concerns that measuring their overland flow take—akin to how floodplain harvesting take occurs—is not practical and is cost prohibitive under the non-urban metering rules.

Meters are generally installed correctly but data loggers and telemetry are more challenging

More challenges are being encountered with the installation of data loggers and telemetry, due to system limitations, challenges with implementing emerging technologies and equipment failure in the field.

Water users are not reporting meter readings preventing effective water resource management

Lack of self-reported meter data can lead to potentially lower available water determinations being made because full usage is assumed when data is unavailable or inaccurate.

Issues with data systems

DQPs report that they are not able to rectify errors quickly and efficiently and there is a high administrative burden involved with recording meter installations and validations. Water users say they see little benefit to them in telemetered data as the systems are challenging to navigate and they are not able to easily access their meter data.

Floodplain harvesting measurement

The NSW Floodplain Harvesting Policy 2018 and associated Floodplain Harvesting Measurement Policy 2020 are also being implemented in NSW.

These two policies together manage and measure floodplain water extractions more effectively to protect the environment and the reliability of water supply for downstream water users, ensure compliance with the requirements of the *Water Management Act 2000* and meet the objectives of the National Water Initiative.

While this review of the non-urban metering framework does not address matters specific to floodplain harvesting measurement, the rollout of floodplain harvesting measurement is facing similar implementation challenges. There may be lessons from this review that could be applied in the floodplain harvesting measurement context in the future.

Government-owned meters

Government-owned meters were installed ahead of the rollout of the metering framework through a number of pilot programs running from 2010-2012. There are 2,822 government-owned meters, mainly in the southern Basin and Hawkesbury-Nepean region. These meters are used by private water users but are owned and maintained by WaterNSW. The maintenance costs for the meters are included in the water users' fees set by the Independent Pricing and Regulatory Tribunal (IPART).

In the southern Basin, the government-owned meter fleet is either fully compliant or on the pathway to compliance with the metering rules, or the customers have opted out of the fleet.

Previous consultation processes have indicated a strong preference for these meters to remain in government ownership, despite the broader policy requiring private ownership and maintenance of meters across the state.

This issue is not directly relevant to this review of the Regulation. However, as these meters approach end of life, discussions need to start about ongoing costs of replacement and maintenance of this meter fleet as part of the 2025-2030 IPART price determination.

Addressing the barriers to implementation

The following section outlines the key issues that are creating barriers to the metering reform and a range of options being considered to respond. The options presented are consistent with the objectives of the metering framework and government commitments.

Underpinning the possible responses is an intention to better match metering obligations to the risk that the water use poses to a water source while maintaining the policy outcome of accurately metering the vast majority of licensed water take. This is expected to ease bottlenecks and address known barriers to implementation while accelerating uptake.

Importantly, the issues and options presented here are the starting point for a discussion with water users and the broader community. The options have not yet been scoped and fully costed.

Your feedback will inform where to focus more detailed analysis to improve the rules and how they are implemented.

Ensuring that metering requirements only apply to works taking water

What is the problem?

Many works are unintentionally identified as requiring metering

The metering conditions apply to all works on a water supply work approval,[8] except those works which are exempt under the Regulation including works used solely for basic landholder rights or those not nominated by an access licence.

The intention of the metering framework is that only works taking licensed water from a water source are required to be metered. However, water users' statements of approval and the government databases currently do not distinguish between works taking licensed water from a water source and those works used for other purposes. This means that there are 'unintended works'—that is, works that do not take licensed water—that appear to require a meter. Unintended works include works that don't take water from the water source, unconstructed works, derelict works, or works used solely for basic landholder rights.

Desktop analysis indicates that approximately 32% of all work approvals only authorise one work (pump or bore) and in these cases, it is possible to assume the pump or bore needs to be metered unless it is used solely to take water under basic landholder rights. The remaining 68% of work

[8] *Water Management Act 2000*, section 101A.

approvals authorise two or more works per work approval, making it difficult to determine which of those works take licensed water and are intended to require metering.

This is leading to water user confusion, less efficient compliance activities and more difficulties detecting potential illegal take.

The primary mechanism currently available to identify a work as not taking any water is to make these works 'inactive' which requires water users pay a fee of $603.50. Water users report this process is not fit for purpose and is prohibitively expensive, particularly since they must pay that same fee again to make the work active if it is used in the future. There is also distrust from water users that government may make the inactive status of a work permanent.

Possible responses

The regulatory framework and government data systems need to clearly identify those works on work approvals that take licensed water from the water source and require meters. This would:

- reduce water user confusion about which of their works require a meter
- allow government to provide a more accurate picture of meter coverage and compliance rates
- enable more efficient and targeted compliance action.

Initial analysis has shown that correctly identifying the works intended to be exempt could reduce the number of works assumed to require meters from just over 30,000 to around 13,600 (approximately 55% reduction).

It needs to be easier for water users to identify for government whether works are used to take licensed water from a water source or not. This could be done by:

- requiring water users to identify those works that *do* take licensed water from a water source, and deeming those not notified as not taking licensed water and not subject to metering requirements, or
- water users could identify those works that *do not* take licensed water, or which only take water under a basic landholder right, and all other works would be assumed to take licensed water from a water source and be subject to the metering requirements.

Commented [REDACTED]: Why not do both? Any remaining works not clearly identified should then be assumed to take water from a source.

Government would then amend the work approval to reflect how the works are used. This would be supported by a process to confirm the validity of the nominated works. Penalties for failing to provide the advice or for incorrectly providing advice relating to a work that requires metering would apply.

Focus question:

- What would make it easier for water users to give government this information?

Reviewing metering requirements to target risk more effectively

What is the problem?

The current rules may not meet the policy objective of minimising undue costs on smaller water users.

All water supply works require a meter unless an exemption applies. There is currently a work size-based exemption, which links the requirement to have a meter to the risks of the individual work and the physical ability to take water (regardless of access licence shares or volume of take). This approach was preferred and supported with stakeholder feedback when the framework was established because:

- compliance can be assessed against a static characteristic (pump or bore size), as opposed to volume-based thresholds which are more variable due to trading
- it linked the requirements to risk, based on physical ability to take water via the work, and captured the majority (95%) of water take capacity by setting the thresholds at 100 mm and 200 mm for surface water pumps and groundwater bores respectively
- it represented the point at which cost benefit analysis showed the metering requirements could be set to capture the majority of water take capacity and minimise undue costs on smaller water users.

Evidence from implementation of the current rules suggests that they may be imposing disproportionate costs for the risk posed by some water users, particularly smaller or infrequent water users.

The large number of small or infrequent water users required to meter under the rules is also creating a demand for meter installations that cannot be met by the current market of active DQPs.

Many small water users are required to meter at a cost that may be disproportionate to the risk posed by the water take.

The current exemptions based on work size thresholds do not apply across all water sources. This is because there were already universal metering requirements in place across 13 surface water sharing plans before the introduction of the non-urban metering framework.

The intent of the Regulation was to maintain or enhance metering requirements rather than roll back on existing requirements. However, the overlapping rules appear to be creating confusion and may impose undue costs on small, low-risk water users. It also creates a perceived inequity between existing and new work approval holders, as new work approval holders in the same water source *can* access the size-based exemptions as they were not subject to the universal metering condition.

Universal metering is also required in 55 at-risk water sources because the level of licensed entitlement is equal to, or above, the sustainable limit for extraction of water from these water sources. Metering conditions were in place in these water sources before the rollout of the metering framework. There have been government water buyback programs to ensure sustainability in some

Commented [redacted]: Why not use volume basis? It would be expected that the allocated volume to any user would be updated once trades are processed - why not include a simple warning that increased entitlement my trigger metering requirements? And then flag for NRAR follow up if an approved meter is not installed by, say, 12 months?

Commented [redacted]: Surely new approvals should come under the rules of the current water sharing plans - this seems to be a non-sensical situation.

of these water sources and continued monitoring, and therefore metering, of these water sources, is critical to ensure the level of actual take remains below the sustainable limit. Using Australian standards for non-urban metering (AS4747), which is more costly, may be disproportionate to the risk posed by small water users in some of these systems.

Possible responses

Enable less prescriptive measurement standards for low-risk water users in water sources subject to universal metering requirements

Measuring water take from regulated rivers and at-risk water sources that are fully or heavily allocated is very important regardless of the amount taken by individual users as it enables better management of these systems. More water sources may be identified as 'at-risk' in the future, triggering the need for universal metering in those sources.

However, to balance the data needs with the costs imposed on small water users, less prescriptive metering requirements that reduce metering costs could be considered for works that require meters under the rules but are below the current work size exemption thresholds.

This could include installing and maintaining a flow meter and data logger according to the manufacturers' specifications and removing the requirement for mandatory DQP installation.

This would provide lower-risk water users with a choice of how they can comply with metering requirements (that is, they can still choose to have a DQP install a pattern-approved meter if they wish).

It would also enable the limited market of active DQPs to focus on higher risk meter installations.

Assess whether metering requirements would be better defined by volume-based thresholds, with associated measurement and reporting requirements reflecting risk to a water source

The review is considering whether thresholds reflecting the volume of water take or entitlement would provide better outcomes for the objectives of the policy than the current exemption thresholds based on work size. Many of the other Murray–Darling Basin jurisdictions define smaller, low-risk water users this way based on their usage limit or entitlement. This recognises that work size is not always the best indicator of actual take or risk, such as when a smaller pump is used continuously, or a large pump is only used intermittently.

The intention is to better target metering obligations to the level of risk posed to the water source while upholding the policy's goal to accurately meter the vast majority of licensed water take. This aims to address barriers to implementation caused by a limited market of active DQPs and accelerate metering compliance.

An option being examined is a stratified approach to metering requirements based on categories of water take volume (see Table 3). It is based on the following principles:

- that all licensed water take should be measured and reported

- that the vast majority of water take (greater than 95% of total licensed entitlement) should be metered in accordance with national commitments and the Australian Standard for non-urban metering
- measurement requirements should be imposed reflecting risk to water sources, and less prescriptive and less costly measurement requirements could apply to lower-risk take, subject to annual reporting of volume taken and equipment maintenance
- universal metering in 'at-risk' water sources must be maintained, but lower cost options could be enabled for smaller users in these systems.

Table 3. Possible model for state-wide volume-based metering and measurement obligations (note: the volume ranges are indicative only)

Volume threshold	Measurement standard	Reporting requirement
100 ML or greater annual usage or entitlement • covers more than 95% of licensed entitlement state-wide • larger users.	Current NSW metering standards apply: • pattern-approved meter and installation in accordance with AS4747 • DQP for installation, validation, maintenance and 5 yearly revalidation • data logger and telemetry.	Annual confirmation that: • data submitted by telemetry is accurate • all licensed water was taken through meter(s) on nominated works.
10 ML to 100 ML annual usage or entitlement*	Measurement required, with less prescriptive metering standards: • flow meter (AS4747 and pattern approval not mandated) • self-installation without DQP validation • 'telemetry ready' data logger.	Monthly reporting of water take (as per current requirement for metered works without telemetry). Annual confirmation that: • monthly statements are correct • meter installed and maintained in accordance with manufacturer's specifications • all licensed water was taken through meter(s) on nominated works.
Less than 10 ML annual usage or entitlement* • small users, generally low risk to water source • infrequent/intermittent users.	No meter is mandated, but trade is prohibited without a measurement device (subject to the Access Licence Dealing Principles Order 2004).	Annual reporting of water take (as per current requirement for works without meters).

Commented [redacted]: This category should be subject to a thorough cost-benefit analysis. For WaterNSW, do the fees received for the water outweigh the cost of administering these entitlements? For water resource management, does monitoring these entitlements closely make a real difference to how resources are managed? Eg. Compare the total volume in this category for a valley and see how it compares to the "unaccounted system losses".

Volume threshold	Measurement standard	Reporting requirement
At-risk water sources	Universal metering required. Less prescriptive metering standards available for annual use less than 100 ML.	Monthly reporting of water take (as per current requirement for metered works without telemetry). Annual confirmation that: • monthly statements are correct • meter installed and maintained in accordance with manufacturer's specifications • all licensed water was taken through meter(s) on nominated works.

**NRAR able to issue directions to impose the same obligations as > 100 ML users for any water take offences that are considered to have a material, adverse effect on a water source.*

Such a model is consistent with national commitments and the intention of the NSW non-urban metering policy, as it maintains and increases metering coverage compliant with the Australian Standard for non-urban metering (AS4747) for the vast majority of licensed water take in NSW.

At the same time, it allows smaller and lower-risk water users to use less costly options for flow measurement which would be supported by standardised reporting of water take, measurement equipment and its maintenance.

As water use patterns differ across NSW, volume-based thresholds may also need to vary between water sources to help manage risk. For example, different volume thresholds may need to be set for regulated, unregulated and groundwater, or coastal and inland. This requires further analysis, which is currently being undertaken.

Focus questions:

- Should there be flexibility in metering and measurement standards reflecting risk to water sources, or should there be one standard across the board?
- Would it be easier to understand and comply with metering rules based on entitlement or volume of take than the current approach based on infrastructure size?
- If a volumetric approach was to be implemented, should it be consistent across the state, or tailored by catchment to reflect the different water use behaviours and water management risks in different areas?
- What are the practical implementation challenges that water users might experience in complying with metering requirements based on volume of take or entitlement?
- Are there any issues specific to different industries that take water under a licence that should be considered in relation to the possible options described?

Revisiting installer requirements to accelerate progress

What is the problem?

There are not enough active duly qualified persons to install all the meters required.

Under the framework certified meter installers or, in the case of open channel meters, certified practising hydrographers, must install, maintain, and validate meters.

Becoming a certified meter installer (referred to as a duly qualified person, or DQP, in NSW) involves completing specific certification requirements and a three-day course run by Irrigation Australia Limited. Additional course requirements and skills are required to become a certified practising hydrographer.

Data indicates that of the approximately 230 qualified DQPs registered with WaterNSW, only 114[9] have operated in NSW, and only 86[10] have been actively installing metering equipment this year. Although the first stage of the rollout has a compliance rate of 70%, the limited number of active DQPs available to install, maintain and validate meters for the remaining stages is unlikely to meet water users' demand.

Some of the reasons that appear to be contributing to the limited number of active DQPs include:

- installing meters has a high administrative burden, entails regulatory risk and there is limited support for costs incurred when metering equipment (including data loggers) fails and needs fixing and/or replacement
- labour and workforce shortages in regional areas
- a disconnect between DQPs and water users. The vast geographical distances and limited number of customers in some parts of the state make it challenging to service some areas, coupled with the inability to easily identify areas where services are in demand. A Metering and Measurement Virtual Marketplace was recently launched to address this issue, but the tool is still in its infancy.

The DQP Portal which is used to record installation and validation of metering equipment data has contributed to the high administrative burden experienced by DQPs. WaterNSW has recently upgraded the DQP Portal to address this issue and is committed to ongoing improvements based on feedback.

All meters must also be re-validated every five years by a DQP. The requirement for revalidations in coming years is likely to further exacerbate the supply/demand challenges already being experienced. In NSW, revalidation includes accuracy testing in the field. Feedback indicates that few DQPs are able, or willing, to complete in-field accuracy testing and the cost is prohibitive.

The previous section outlined possible options of not requiring DQPs to install and validate meters for low-risk user categories. Some further possible responses to address the market limitations are described here.

[9] Based on the number of duly qualified persons who have commenced a telemetry registration in the WaterNSW DQP portal

[10] 'Active' defined as duly qualified persons who have started or progressed a non-government owned local intelligence device installation in the DQP Portal this calendar year (2023)

Possible responses

Government coordinating DQP services to match supply with demand, coupled with increased support services for DQPs

This would involve the government identifying demand for metering within a geographic location so DQPs can scale up and roll out meter installation/validation more efficiently. This could potentially make it more economically viable for DQPs to service areas not currently covered by local DQPs.

This option would also involve greater government support to DQPs including, for example, providing concierge service to support the installation and registration of meters and local intelligence devices, and use of the DQP Portal.

Government installation in targeted areas

Similar to the above, this would involve government identifying demand for the installation of AS4747 meters within a geographic area. However, rather than only matching DQPs to demand, it could involve government providing DQP services in areas where it identifies a shortage, on a fee-for-service basis.

Options to increase the DQP workforce by expanding definitions for who can be a DQP

This would aim to expand the potential DQP workforce by amending the rules to enable other workers with the necessary skills to complete meter installations and validations (such as engineers, surveyors, plumbers and electricians).

This would be supported by a short online course that is part of the DQP registration process to ensure the skilled workforce has adequate training. This would also respond to the reported issue of course costs, ongoing fees and the loss of income from time spent completing a course.

Enabling less prescriptive installation pathways for closed conduit meters

The rules could be amended to enable anyone to install pattern-approved, closed conduit meters, provided they are validated by a DQP within six months. This option is consistent with the national framework and the requirements in other jurisdictions, such as Queensland.

This option overcomes the potential issue of not having enough DQPs to install meters in the first instance. However, this may result in a bottleneck of DQPs available to validate meters six months after installation. There is also a risk that the DQP may refuse to validate the meter installation and the burden of non-compliance rests with the water user.

Review maintenance and five-yearly revalidation requirements

It is proposed to review and update the maintenance and revalidation requirements to ensure they are practical, while maintaining the integrity of the installations. This would include revisiting the requirement for in-situ accuracy testing which is not mandated under the national metering standards.

Commented [REDACTED]: I doubt that this would have great impact. The issues I hear from DQPs about the viability are threefold:
1. the profit margin on installing meters is poor compared to selling and installing other equipment (most DQPs work for irrigation retailers)
2. the administrative burden is excessive, ie. engaging with the DQP Portal is difficult for guys who are mainly hands-on fitters who don't use computers much, and particularly the delays and sometimes lack of feedback for questions or issues (many times DQPs say 'no-one in the govt will give them a straight answer')
3. fear of being pulled up by NRAR down the track for some small mistake (making mistakes is considered highly likely by DQPs because the process is so complicated and fiddly).

Commented [REDACTED]: This is a good idea.

Commented [REDACTED]: This has merit but there is a high risk of poorly installed, and therefore inaccurate, metering being the result. The governance of the whole DQP strategy would need to be greatly increased - which would need willingness and funding from the state government.

Commented [REDACTED]: This option sounds good but likely would mean double handling and increase cost ot he water user. This is because the installer would need to select and install a suitable meter and would charge the water user accordingly. The DQP is then obliged to thoroughly check the entire installation, including if the meter selected is 'fit for purpose', and this requires disassembly and internal checks. Ordinarily, the DQP does all this in one go, which is more cost-effective.

Commented [REDACTED]: Maintenance and revalidation is a problem that is about to hit the scene - 1st April 2024 marks 5 years since commencement. This matter needs urgent review. At present, the two options are to remove the meter sensor unit and send it away for testing at an accredited lab (which takes a lot of time) and in-situ testing, of which the only realistic option is clamp-on flow meters. The accuracy of clamp-on meters is questionable, and the present requirement of having them checked annually by an accredited lab will create another bottle neck (there isn't enough labs). Serious consideration should be given to allowing use of internal verification processes for this meters which have them (the manufacturers claim their meters and their check processes have grater accuracy than clamp-on meters - so in-situ checks with clamp-ons is checking a higher quality instrument with a lower quality one).

Focus questions:

- Who should install metering equipment?
- Do you think there would be benefits from government involvement in the DQP market? For example:
  - if government contracted and coordinated DQP services then passed on the costs?
  - if government provided fee-for-service DQPs?
- What forms of further training or support would make it more viable for already qualified DQPs to actively participate in the market?
- Is there benefit in revisiting the skill sets and training required for DQPs? Are the current training and certification requirements limiting the market or are the other factors more significant?

Making data systems and equipment standards more fit for purpose

What is the problem?

It takes longer to install data loggers and telemetry and this is typically where installation challenges are being experienced

The rollout of telemetry is an important element of the non-urban water metering framework to transmit timely water extraction data securely from a meter to government and back to water users.

However, as meters are not compliant until a data logger is installed, water users and DQPs have indicated that issues involving the installation of data loggers and telemetry[11] are affecting their ability to meet compliance deadlines.

Telemetered data should enable NRAR, WaterNSW and the department to undertake compliance, enforcement, billing, and other water management activities to enable more effective management of the water source. It is also the intention that water users can access this data via a private online dashboard and receive notifications when their equipment is not operating properly.

Significant progress has been made in this area. However, as with any evolving technology, the full potential of telemetry data is yet to be fully realised. As we continue to implement this important element of the framework, challenges which may compromise the quality and reliability of data transmitted in some cases need to be addressed.

The government sets the standards for data loggers and telemetry requirements and maintains a list of tested and assessed data loggers that meet Data Logging and Telemetry Specifications 2021. The list currently does not provide any form of guarantee of these devices including warranty,

[11] In NSW we use the terminology 'local intelligence device' to refer to a data logger and telemetry

reliability or suitability of listed devices, including for specific environmental conditions, metering equipment configurations or signal interfaces.

Some of the known issues with data loggers and telemetry include:

- Many approved data loggers are newly developed and despite meeting specifications, there are issues arising with field installation. There are reports of data logger failures due to the premature degradation of battery life, for example, or other faulty mechanics (alarm settings) of the device.
- Market-driven preferences for data loggers may be compromising data quality. The Regulation does not prescribe the combinations of meters with data loggers. This appears to be resulting in the market opting for data loggers that do not perform optimally with certain meters, resulting in poor quality and unreliable data.
- Data logger and telemetry installation remain a challenge. Installing, configuring and connecting data loggers with meters can be complex. This results in errors due to high rates of incorrect installations and incompatible equipment combinations.
- The systems underpinning telemetry installation may not be meeting expectations. The systems are not meeting anticipated data outcomes, and there are significant resource requirements to amend or add data loggers in the government system. Some water users report the data provided does not meet their business management needs.
- Specifications for data loggers and telemetry may be stifling industry innovation and imposing additional costs on water users and DQPs. The specifications do not allow use of pre-existing mature telemetry systems (for example, SCADA systems) which are excluded due to data and cyber security requirements. The specifications also prevent DQPs from configuring devices in the field, inhibiting the ability to 'carry a spare' or purchase local intelligence devices in bulk.

Possible responses

Review of the Data Logging and Telemetry Specifications 2021

A specific and comprehensive review of the Data Logging and Telemetry Specifications 2021 is warranted. While the specifications were guided by best practice principles, practical implementation experience indicates the need to ensure they are meeting the needs of water users, government and the broader objectives of the metering framework.

Commented [redacted]: The specifications should require, as far as possible, just plug-and-play for these units, thereby eliminating anxiety of DQPs about getting the installation right.

Decoupling data loggers and telemetry from meter installation requirements

Government intends that data loggers and telemetry must feature in the metering framework. However, the metering rollout could be sped up if compliance requirements were changed to allow meters and data loggers to be installed and made compliant separately.

This would effectively allow for a pause on data logger requirements while data systems and rollout options are improved and enable the available DQP workforce to focus resources on meter installations.

Government coordinating bulk procurement and installation or, in certain circumstances, government-owned data loggers and telemetry systems

Data logger and telemetry rollout may be better supported through bulk procurement and co-ordinating installation using the existing DQP workforce and/or government provided services. A coordinated approach could enable cost savings and efficiencies and resolve some of the existing inefficiencies. Timeframes for data logger installation would be extended to account for this.

An extension to this option could include government ownership of data loggers and telemetry in certain circumstances. For example, telemetry is not mandatory in at-risk water sources where universal metering is required. However, more frequent data is needed to effectively manage the water source.

Government prescribing which data loggers and meters must be used together

Reducing the number of listed data loggers may help to ensure equipment selected in combination is fit for purpose. Fewer combinations could allow for improved and tailored DQP training.

This could be facilitated by developing standards for permitted meter and data logger combinations and specifying environmental settings where they can be installed. Technologies that are not appropriate could be excluded and evidence from DQPs and digital specialists included in the decision making on any future changes.

Ensure duly qualified persons are better trained and supported

This would respond to an identified need for better, more tailored training for DQPs to install data loggers and telemetry. It would also include additional frontline support so DQPs have access to information and help when needed.

Commented [redacted]: Good idea.

Focus questions:

- Would separating the requirements for meter installation from data loggers and telemetry be beneficial? Would an extension of the compliance timeframes for data logging requirements be helpful?
- Would government support for rolling out data loggers and telemetry be beneficial?
- What are the benefits and risks if government was more prescriptive about the suitable products/technologies and combinations of meters and data loggers?
- Do water users want access to more frequent meter data?
- Is it important to be able to use existing telemetry systems that are currently excluded (e.g. SCADA)?
- What forms of training and support would make it easier for DQPs to navigate data logger and telemetry installation?

Improving water use reporting

What is the problem?

Limited reporting of water take information is compromising effective water resource management

As part of the non-urban metering framework, new conditions for recording and reporting water take were implemented. The requirements vary depending on the standard of metering equipment installed.

In summary:

- Water users with works not required to meter must annually report licensed water take and water taken under basic landholder rights.
- Users with works required to meter, but not connected to telemetry, must report licensed water take and water taken under basic landholder rights monthly. WaterNSW downloads data logger records annually.
- Users with works required to meter and connected to telemetry transmit data to the data acquisition service daily. Monthly reporting of water taken under basic landholder rights is also required.

Despite these new streamlined reporting requirements, there are significant gaps in water take data being sent to WaterNSW. The current rate of reporting is so low in some water sources it is difficult to manage the resource.

All water users are potentially affected by this limited water take reporting. In the absence of accurate information, government must make more conservative assumptions for water resource management and factor this into management decisions (for example, by reducing available water determinations).

Interventions have been trialled to increase water take reporting compliance, like issuing reminder letters. These have helped, but the compliance rates are still too low for sufficient confidence in resource management.

Possible responses

Requiring annual water user attestation of water take and confirmation of metering equipment

It is proposed to introduce a comprehensive requirement for all water users to annually attest to the volume of licensed water taken, and how it has been measured.

This would require water users with data loggers and telemetry to confirm the accuracy of the transmitted water take data annually, reconciling the annual volume of licensed water taken.

Water users without telemetry would need to confirm the accuracy of the submitted monthly water reports every year, confirming the annual volume of licensed water take.

It would also be an opportunity every year for water users to:

- confirm which works are taking licensed water and how they are metered, including that the meters or measurement devices have been maintained appropriately
- confirm the currency of water user contact information.

This volume attestation would be recognised in the Regulation, with penalties for providing incorrect information or no information at all. Complemented by a risk-based and proactive NRAR audit program and remote intelligence capabilities, this would support desktop compliance assessments by NRAR, reducing costs to all water users.

Focus questions:

- How can we improve the mechanisms for water use reporting?
- What would make it easy for water users to complete an annual attestation of the volume of water taken and how it was measured?

Ensuring a measurement pathway for take of overland flow in unregulated water sources

What is the problem?

It is not practical to measure overland flow take using non-urban metering equipment

Overland flow[12] can be taken under different types of licensed entitlement such as floodplain harvesting licences and unregulated river licences. While these different licensed entitlements can all be used to take overland flow, they are currently subject to different measurement rules.

Overland flow taken with an unregulated river licence must be metered in accordance with the non-urban metering framework. This means only closed conduit or open channel metering equipment is permitted to be used.

If overland flow is taken with a floodplain harvesting licence, it must be measured through either point-of-intake metering equipment (closed conduit metering under the metering framework) or storage measurement equipment, under the floodplain harvesting measurement framework.

In many cases, it would be more practical and cost effective if users taking overland flow with an unregulated river licence could measure their take using storage measurement devices, as is allowed under the floodplain harvesting measurement framework.

[12] Overland flow is water flowing over or lying on the ground, but not water within the bed of a river.

Possible response

Enabling appropriate measurement technology for overland flow take in unregulated systems

It is proposed to amend the Regulation so that overland flow taken under unregulated river access licences can be measured by more appropriate equipment that better suits this type of water take. This would align with floodplain harvesting measurement rules and the measurement outcomes of the national standards and agreements.

It is proposed to exempt water users taking overland flow under an unregulated access licence from metering requirements until alternative provisions are in place. This will give water users legal certainty while appropriate requirements and any system upgrades to support implementation are developed. In the interim, water take recording and reporting rules, and the proposed annual attestation of water take would apply.

Commented [redacted]: This is a good idea. Why not extend storage metering as an option for pumped measurement too?

Focus question:

- Will this proposed change enable appropriate measurement and reporting of overland flow take in unregulated river entitlements?

Strengthening compliance and enforcement powers

What is the problem?

Strengthened compliance tools are needed to ensure efficient and effective enforcement outcomes

NRAR is responsible for compliance and enforcement of water laws in NSW, including the metering rules. Its focus has been to ensure high-volume, active works are compliant, educating water users about the rules and their obligations in the lead up to their compliance deadlines, and monitoring and enforcing compliance amongst groups whose deadline has passed.

To ensure fairness and ongoing proper operation of meters, NRAR needs clear, effective and efficient enforcement tools. In practice, NRAR has found that better tools are needed to reinforce the obligations of all water users, backed up by more effective enforcement powers to encourage compliance.

There are a number of areas where changes are needed to provide for more effective use of enforcement tools.

Possible responses

Improving provisions around faulty meter equipment

An approval holder is required to repair a meter within 21 days of becoming aware their equipment is faulty, or notify WaterNSW and apply for an extension if it cannot be repaired in this timeframe.[13] However, there is no limit to the number or duration of extensions to repair meters, and no application mechanism to cover circumstances where a meter needs to be replaced.

It is proposed to amend the Regulation to ensure that meters are repaired, or replaced when repair is not possible, in a timely way. For example, the Regulation could include parameters such as time limits for meter repairs or limits on the number of extensions and rollovers. Provisions could also be included when a meter must be replaced rather than repaired (for example, enabling alternative water take recording methods while the faulty meter is replaced).

Clarifying definitions for offence provisions

Under the Act (s. 91I), it is an offence to take water when metering equipment is not installed or is not working. Clarifying some of the terminology associated with these provisions would enable NRAR to enforce the rules more effectively.

Enabling NRAR to issue directions requiring calibration and proper operation of metering equipment

The Act enables NRAR to issue directions to install, replace, use and maintain metering equipment.[14] However, this does not extend to requiring meter calibration or ensuring that metering equipment is operating properly. Enabling NRAR to issue a direction to ensure that the metering equipment is operating properly would ensure that all metering equipment is held to the same standard.

Focus question:

- Do you think the suggested improvements to compliance and enforcement tools will clarify the expectations on water users and make the system fairer?

[13] *Water Management (General) Regulation 2018*, clause 243.

[14] *Water Management Act 2000*, section 326.

Glossary

Table 4. Glossary of terms used in this document

Term or abbreviation	Definitions and descriptions
AS 4747	Australian Standard AS 4747, 2013, meters for non-urban water supply. This standard is updated from time to time by Standards Australia
CMI	Certified meter installer, also known as a DQP
DAS	The data acquisition service is a cloud-based platform used by the department, WaterNSW and NRAR for the purposes of acquiring and storing data from metering equipment
DQP	Duly qualified person, as defined in the dictionary to the *Water Management Act 2000* and in clause 236 of the Regulation
DQP Portal	Online portal for DQPs to register for installing telemetry, filling in validation of metering equipment, accuracy testing and open channel design
Local intelligence device / LID	A combined data logger and telemetry unit that complies with the Data Logging and Telemetry Specifications 2021
Metering equipment	Any device used for, or in connection with measuring the flow of water and any ancillary wiring, pipework, telemetry equipment or apparatus and any supporting structure
NRAR	NSW Natural Resources Access Regulator
Open channel	A channel or conduit used for conveying water that is not enclosed
Pattern-approved	Pattern-approval means the design of these meters has been verified by the National Measurement Institute (NMI) to meet national metrological specifications. A list of these meters is published here: https://www.agriculture.gov.au/sites/default/files/documents/mdb-pattern-approved-non-urban-meters.pdf
Regulation	Water Management (General) Regulation 2018 (NSW)
Water take data	The flow rate and cumulative volume of water taken, or the height storage for floodplain harvesting data

[redacted]

From: [redacted]
Sent: Tuesday, 28 November 2023 2:03 PM
To: [redacted]
Subject: FW: Submission -Non-urban water metering review

From: [redacted] <[redacted]
Sent: Friday, 24 November 2023 1:25 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: Non-urban water metering review

I welcome this opportunity to provide a formal submission in response to the New South Wales (NSW) Government's review of The implementation of the NSW Non-Urban metering policy.

I have liaised closely with my industry group and other industry member organisations. This has resulted in recommendations having been compiled to guide the NSW Government for pathways towards improving metering compliance rates.

I stress the significant amount of time, money and resources which my business, and the entire irrigation industry, has invested into the NSW non-urban metering reform. The reform to date has been a very unfortunate, and disappointing, outcome for our industry. The current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity.
Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

There is absolute support for water to be metered and measured, but to date the reform has been extremely expensive, ineffective, with many barriers, inequities and complications resulting in non-compliance to water users through no fault of their own.

Prior to the launching of the reform industry expressed concerns the reform would be problematic, to the extent of being unachievable in some areas, without more practical methods of application. For the most part, these concerns were not heeded, and have since proven to have come to fruition. I recommend as part of this review that there must be an inward-looking focus back to the department and the decision makers who chose not to listen to the practical advice and solutions initially tabled. It is now time for industry to be heard, and have the practical, efficient methods which are proposed to see the policy implemented to deliver the metering requirements, without compromising or undermining the integrity and efforts exhausted to this point.

It is critical that the NSW State Government and NSW Department of Planning and Environment (DPE) do not take a lack of engagement to this review as a sign of a lack of interest, and instead I encourage further engagement following this period.

The NSW irrigation industry is currently navigating one of the most challenging periods in the history of the industry, as the Federal Government pushes legislative amendments to the Murray Darling Basin Plan which threaten the irrigation industry. Along with the current period being one of the busiest of the year, with winter crop harvesting and summer crop planting requirements demanding the full attention and time of myself and the entire irrigation industry, this has meant many irrigators do not have the time to engage in this consultation for the non-urban metering reform review in depth.

I recommend the NSW Government implement the following:

Provide an automatic temporary exemption for known barriers.

1) A list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome.

2) A mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the Duly Qualified Person (DQP) to formally register the circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

Pathway to nominate active works.

3) A pathway for water users to identify the works used to take licenced water from a water source. The process must be:
a) Cost free.
b) Easily reversible; subject to meeting the metering requirements at such a point in time as the work becomes active again.

4) A clear criterion as to what constitutes an 'active' or 'inactive' to ensure requirements are well understood. Currently, requirements for an inactive work are that the water user will need to demonstrate the work is physically incapable of taking water e.g., pipes removed and pump disabled, or pipes are sealed shut and connected to a tamper proof device.

Remove inconsistent metering conditions on licences.

5) The removal of pre-existing specific metering conditions on licences, and instead refer to one instrument. Ensuring all metering requirements are captured under one policy instrument, removes risk of inconsistency and confusion. There should also be a "to the extent of any inconsistency" clause to provide further assurances on this.

Metering requirements that target risk.

6) The continuation of the requirement for DQP certification for AS4747 meters – I do not support the removal of this requirement due to the risk of damaging the industries reputation, and the integrity of the reform, if it were to be seen as cutting corners or being watered down.

7) The continuation of the work size-based model for inland NSW – I do not support a state-wide rollout of a stratified volume-based model, nor a catchment-by-catchment approach. This is due to:
a) The investment of significant resources into the well-established work size-based model, this would result in inequity, such as for water users who are captured under the current policy settings but would not be under changed settings.
b) The perception of non-standard expectations permitted through implementing varied requirements across different catchments.

8) Practical and simple reporting requirements – I do not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

9) Under the current work size-based model, review the list of exemptions with the goal to provide less costly options for smaller and low-risk water users across NSW, particularly noting smaller and low risk water users in at risk water sources.

10) Provide clarification for what will happen to water users currently eligible under the "Small, low risk works used solely to take water under a stock and domestic water access licence" that lapses on 1 December 2024.

11) Under the current work size-based model, clarify the following definitions:
a) Smaller water user.
b) Low risk water user.

c) Types of groundwater works.
d) Types of surface water works.

Revisit meter installation and certification requirements.

12) The government management and coordination of the DQP services to address DQP shortages in targeted areas and matching supply with demand. Due to the current market failure, water users feel the status quo is not effective, largely due to lack of financial incentive and rigorous requirements for DQPs that makes it not worthwhile, which has resulted in the number of DQPs actually operating being much lower than those listed as accredited. There is a view that if the Government were to take over the management and co-ordination of DQPs, this would then appropriately shift the responsibility onto Government to deliver their own reform.
This is preferable to other alternatives, such as removing the DQP requirement, or enabling the water user to self-certify their works, as these are seen as diluting the reform, and undermining its integrity, and therefore cannot be supported.
I recognise and appreciate the concerns as to whether this would fully resolve the problem or not, given labour shortages are a key issue in these areas irrespective of whether public or private sector employment. Therefore, this step, while supported, is considered only a part of the solution. There have been suggestions as to whether existing agencies such as WaterNSW could take on this responsibility, or a shift to Local Government. It is critical that a public-sector service is appropriately resourced and funded, to avoid repeating past mistakes of poor levels of service delivery.

13) Expansion of the definition of who can be a DQP to install and certify works for smaller and low risk water users – I support this in principle, noting however that there are worker shortages in many regional areas, meaning this alone will not address that issue. If still within the private sector, it will be imperative that there is adequate financial incentive for these services to be delivered, due to those capable of providing this service earning higher levels of profit from continuing their everyday businesses.

14) Enable less prescriptive installation pathways for closed conduit meters for smaller and low-risk water users.

15) A review of maintenance requirements, such as in-situ accuracy testing, which are not mandated under the national metering standards and are not possible under the current allocation of resources.

16) An increase in DQP support, particularly with burdensome administrative tasks, with a preference to streamlining tasks.

17) I do not support the use of any fee-for-service model or increasing the cost under Water Administration Ministerial Corporation (WAMC) to address the shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the government needs to provide the appropriate level of service, which has not been provided in previous price-determination periods. It is also noted that the origin of this reform is in-part the result of inadequate service delivery by Government previously, in terms of metering and compliance, and it should be a responsibility of Government to rectify this poor service delivery.

Revisit management of telemetry systems.

18) The Government ownership and management of data loggers and telemetry systems – I support the government takeover of telemetry. The single source of truth for water users is their water meter. The additional responsibility to transmit water extraction data from a meter to government (which can also be accessed by the water user) should be held by the government. This would include:
a) Government coordination and bulk procurement, installation, maintenance and ownership of all data-loggers and systems (unless the water users opts-out and selects private ownership).
b) I am of the opinion that until the Government backend system, i.e., the Data Acquisition Service (DAS) is operational and able to receive data, it is not appropriate for telemetry to be required.

19) If prescribing meter and data logger combinations, the combinations provided must be cost-effective.

Revisit Floodplain Harvesting (FPH) measurement pathways.

20) Revisit the Floodplain Harvesting measurement policy to ensure it is effective practically - FPH monitoring and metering standards are not fit for purpose because they are completely impractical (irrespective of metering equipment and their respective issues).

Practical reporting processes: general water usage reporting.

21) I propose that entitlement holders should be permitted to take Floodplain harvested or overland flow water with approved, certified secondary meters until such time that the following barriers are addressed:
a) The shortage of DQPs prepared to install storage meters.
b) The availability of primary storage meters is improved.
c) The configuration and linkages of storage curves to storage meters and the DAS is streamlined so users can readily access data to enable them to be compliant.
d) Sufficient resources are allocated to WaterNSW to upgrade the DAS system to be fit for purpose for DQPs and water users.
e) The newly approved improvements to survey requirements can be utilised by surveyors.

22) Continue water user consultation to find a solution to policy failures, such as:
a) enabling users to identify a specific Local Intelligent Device (LID) in a storage within a works approval to take Floodplain harvesting water while still irrigating from other storages within a works approval without the requirement to subdivide the works approval; or
b) The measurement of water taken from the storage via a different outlet to the one used to take Floodplain harvesting entitlement.

Practical reporting process: general water usage reporting.

23) WaterNSW to send out a monthly and/or annual automated message (water users to nominate for email or letter) prompting water users to log their water use. Include the due date, a link to where this data can be entered online, or a PDF logbook print out that can be mailed in. This requires an up-to-date database of customer details, as well as correct licence information on the Water Access Licence Register.

24) Practical and simple reporting requirements - I do not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

25) I do not support any attestation/confirmation of data submitted by telemetry, as this form of data reporting is out of the control of water users, many of whom have not got access to this data.

Practical reporting process: faulty meters.

26) Due to the ongoing implementation barriers (e.g., access to DQPs), we strongly do not support amendment to Regulation to place parameters such as time limits for the repair or replacement of meters.

27) An extended s91i self-reporting form valid for a 6-month period to reduce administrative burden and simplify the current monthly reporting requirements.

Review cost-share arrangements.

28) The NSW Government must pay for their own reform, upgraded due to the government failure to deliver compliance services that water users paid for in previous determination periods. As the industry has been made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

Develop a clear communication strategy.

29) Water agencies to develop a succinct booklet and or factsheet on how to comply with the meeting reform to mail to water users or have available at ServiceNSW locations.

30) Water agencies to organise an in-person consultation services such as a roadshow with presentations, and/or 1:1 information sessions located in community hubs such as ServiceNSW.

31) Water agencies to collaboratively develop a 'one-stop shop' website with clear links to information (e.g., guidance tools, factsheets) relevant to each stage of the metering journey.

I, [redacted], appreciate the consultation opportunities provided through this review, and look forward to further occasions to provide feedback on addressing metering compliance barriers.

Kind regards,

[redacted]

[redacted]

From: [redacted]
Sent: Tuesday, 28 November 2023 1:43 PM
To: [redacted]
Subject: FW: Submission for the Non Urban Metering Review

From: [redacted] <[redacted]
Sent: Friday, 24 November 2023 2:05 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject:

SUBMISSION TO THE REVIEW OF THE IMPLEMENTATION OF THE NSW NON-URBAN METERING POLICY

I welcome this opportunity to provide a formal submission in response to the New South Wales (NSW) Government's review of The implementation of the NSW Non-Urban metering policy.

I have liaised closely with my industry group and other industry member organisations. This has resulted in recommendations having been compiled to guide the NSW Government for pathways towards improving metering compliance rates.

I stress the significant amount of time, money and resources which my business, and the entire irrigation industry, has invested into the NSW non-urban metering reform. The reform to date has been a very unfortunate, and disappointing, outcome for our industry. The current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity.

Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.

There is absolute support for water to be metered and measured, but to date the reform has been extremely expensive, ineffective, with many barriers, inequities and complications resulting in non-compliance to water users through no fault of their own.

Prior to the launching of the reform industry expressed concerns the reform would be problematic, to the extent of being unachievable in some areas, without more practical methods of application. For the most part, these concerns were not heeded, and have since proven to have come to fruition. I recommend as part of this review that there must be an inward-looking focus back to the department and the decision makers who chose not to listen to the practical advice and solutions initially tabled. It is now time for industry to be heard, and have the practical, efficient methods which are proposed to see the policy implemented to deliver the metering requirements, without compromising or undermining the integrity and efforts exhausted to this point.

It is critical that the NSW State Government and NSW Department of Planning and Environment (DPE) do not take a lack of engagement to this review as a sign of a lack of interest, and instead I encourage further engagement following this period.

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I recommend the NSW Government implement the following:

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Regards,

[redacted]

[redacted],
Australia.

ABN: [redacted]

Phone: [redacted]
Mobile: [redacted]
Email: [redacted]
Web: [redacted]

[redacted]

From: [redacted]
Sent: Tuesday, 28 November 2023 12:27 PM
To: [redacted]
Subject: FW: Water Submission

From: [redacted]>
Sent: Saturday, November 25, 2023 1:29 PM
To: water.enquiries@dpie.nsw.gov.au' <mailto:water.enquiries@dpie.nsw.gov.au>
Subject: Water Submission

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I stress the significant amount of time, money and resources which my business, and the entire irrigation industry, has invested into the NSW non-urban metering reform. The reform to date has been a very unfortunate, and disappointing, outcome for our industry. The current low rates of full compliance demonstrate that DPE-Water and WaterNSW have failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity.
Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.
There is absolute support for water to be metered and measured, but to date the reform has been extremely expensive, ineffective, with many barriers, inequities and complications resulting in non-compliance to water users through no fault of their own.
Prior to the launching of the reform industry expressed concerns the reform would be problematic, to the extent of being unachievable in some areas, without more practical methods of application. For the most part, these concerns were not heeded, and have since proven to have come to fruition. I recommend as part of this review that there must be an inward-looking focus back to the department and the decision makers who chose not to listen to the practical advice and solutions initially tabled. It is now time for industry to be heard, and have the practical, efficient methods which are proposed to see the policy implemented to deliver the metering requirements, without compromising or undermining the integrity and efforts exhausted to this point.
It is critical that the NSW State Government and NSW Department of Planning and Environment (DPE) do not take a lack of engagement to this review as a sign of a lack of interest, and instead I encourage further engagement following this period.
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[redacted]

From: [redacted]
Sent: Tuesday, 28 November 2023 6:44 PM
To: [redacted]
Subject: FW: Submission To Metering Review

From: [redacted]
Sent: Tuesday, 28 November 2023 3:57 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: RE:Submission To Metering Review

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28) The NSW Government must pay for their own reform, upgraded due to the government failure to deliver compliance services that water users paid for in previous determination periods. As the industry has been made to accept a 100% user-share to cover the reform costs, there is a reasonable expectation that the reform will be effective, deliverable, and achieve its intended outcomes with an adequate level of service.

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29) Water agencies to develop a succinct booklet and or factsheet on how to comply with the meeting reform to mail to water users or have available at ServiceNSW locations.

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31) Water agencies to collaboratively develop a ‘one-stop shop’ website with clear links to information (e.g., guidance tools, factsheets) relevant to each stage of the metering journey.

I, [redacted],appreciate the consultation opportunities provided through this review, and look forward to further occasions to provide feedback on addressing metering compliance barriers.

[redacted]

From: [redacted]
Sent: Tuesday, 28 November 2023 6:01 PM
To: [redacted]
Subject: FW: SUBMISSION

From: [redacted] [redacted]
Sent: Monday, 27 November 2023 1:22 PM
To: DPIE Water Enquiries Mailbox <water.enquiries@dpie.nsw.gov.au>
Subject: SUBMISSION

SUBMISSION TO THE REVIEW OF THE IMPLEMENTATION OF THE NSW NON-URBAN METERING POLICY

I welcome this opportunity to provide a formal submission in response to the New South Wales (NSW) Government's review of The implementation of the NSW Non-Urban metering policy.

I have liaised closely with my industry group and other industry member organisations. This has resulted in recommendations having been compiled to guide the NSW Government for pathways towards improving metering compliance rates.

I stress the significant amount of time, money and resources which my business, and the entire irrigation industry, has invested into the NSW non-urban metering reform. The reform to date has been a very unfortunate, and disappointing, outcome for our industry. The current low rates of full compliance demonstrate that DPE-Water and WaterNSW have

failed to execute their responsibilities effectively to design and deliver the reform, and to address barriers at the earliest opportunity.
Many barriers experienced and reported at the commencement of implementation continue to exist as barriers today.
There is absolute support for water to be metered and measured, but to date the reform has been extremely expensive, ineffective, with many barriers, inequities and complications resulting in non-compliance to water users through no fault of their own.
Prior to the launching of the reform industry expressed concerns the reform would be problematic, to the extent of being unachievable in some areas, without more practical methods of application. For the most part, these concerns were not heeded, and have since proven to have come to fruition. I recommend as part of this review that there must be an inward-looking focus back to the department and the decision makers who chose not to listen to the practical advice and solutions initially tabled. It is now time for industry to be heard, and have the practical, efficient methods which are proposed to see the policy implemented to deliver the metering requirements, without compromising or undermining the integrity and efforts exhausted to this point.
It is critical that the NSW State Government and NSW Department of Planning and Environment (DPE) do not take a lack of engagement to this review as a sign of a lack of interest, and instead I encourage further engagement following this period.
The NSW irrigation industry is currently navigating one of the most challenging periods in the history of the industry, as the Federal Government pushes legislative amendments to the Murray Darling Basin Plan which threaten the irrigation industry. Along with the current period being one of the busiest of the year, with winter crop harvesting and summer crop planting requirements demanding the full attention and time of myself and the entire irrigation industry, this has meant many irrigators do not have the time to engage in this consultation for the non-urban metering reform review in depth.

I recommend the NSW Government implement the following:

Provide an automatic temporary exemption for known barriers.

1) A list of automatic temporary exemptions for known barriers beyond the control of water users, until such a time as the barriers can be overcome.

2) A mechanism to provide for special circumstances not listed for automatic temporary exemption (i.e., site-specific circumstances), that enables the Duly Qualified Person (DQP) to formally register the circumstances that inhibit full compliance, and the user to be temporarily exempt from requirements, until compliance becomes feasible.

Pathway to nominate active works.

3) A pathway for water users to identify the works used to take licenced water from a water source. The process must be:
a) Cost free.
b) Easily reversible; subject to meeting the metering requirements at such a point in time as the work becomes active again.

4) A clear criterion as to what constitutes an ‘active’ or ‘inactive’ to ensure requirements are well understood. Currently, requirements for an inactive work are that the water user will need to demonstrate the work is physically incapable of taking water e.g., pipes removed and pump disabled, or pipes are sealed shut and connected to a tamper proof device.

Remove inconsistent metering conditions on licences.

5) The removal of pre-existing specific metering conditions on licences, and instead refer to one instrument. Ensuring all metering requirements are captured under one policy instrument, removes risk of inconsistency and confusion. There should also be a "to the extent of any inconsistency" clause to provide further assurances on this.

Metering requirements that target risk.

6) The continuation of the requirement for DQP certification for AS4747 meters – I do not support the removal of this requirement due to the risk of damaging the industries reputation, and the integrity of the reform, if it were to be seen as cutting corners or being watered down.

7) The continuation of the work size-based model for inland NSW – I do not support a state-wide rollout of a stratified volume-based model, nor a catchment-by-catchment approach. This is due to:
a) The investment of significant resources into the well-established work size-based model, this would result in inequity, such as for water users who are captured under the current policy settings but would not be under changed settings.
b) The perception of non-standard expectations permitted through implementing varied requirements across different catchments.

8) Practical and simple reporting requirements – I do not support the monthly reporting requirements which place an administrative burden on time-poor farmers, many of whom only pump when conditions are dry. To simplify this process, if a water user does not submit a monthly statement, it should be recognised that the work was not used to take water that month.

9) Under the current work size-based model, review the list of exemptions with the goal to provide less costly options for smaller and low-risk water users across NSW, particularly noting smaller and low risk water users in at risk water sources.

10) Provide clarification for what will happen to water users currently eligible under the "Small, low risk works used solely to take water under a stock and domestic water access licence" that lapses on 1 December 2024.

11) Under the current work size-based model, clarify the following definitions:
a) Smaller water user.
b) Low risk water user.
c) Types of groundwater works.
d) Types of surface water works.

Revisit meter installation and certification requirements.

12) The government management and coordination of the DQP services to address DQP shortages in targeted areas and matching supply with demand. Due to the current market failure, water users feel the status quo is not effective, largely due to lack of financial incentive and rigorous requirements for DQPs that makes it not worthwhile, which has resulted in the number of DQPs actually operating being much lower than those listed as accredited. There is a view that if the Government were to take over the management and co-ordination of DQPs, this would then appropriately shift the responsibility onto Government to deliver their own reform.

This is preferable to other alternatives, such as removing the DQP requirement, or enabling the water user to self-certify their works, as these are seen as diluting the reform, and undermining its integrity, and therefore cannot be supported.
I recognise and appreciate the concerns as to whether this would fully resolve the problem or not, given labour shortages are a key issue in these areas irrespective of whether public or private sector employment. Therefore, this step, while supported, is considered only a part of the solution. There have been suggestions as to whether existing agencies such as WaterNSW could take on this responsibility, or a shift to Local Government. It is critical that a public-sector service is appropriately resourced and funded, to avoid repeating past mistakes of poor levels of service delivery.

13) Expansion of the definition of who can be a DQP to install and certify works for smaller and low risk water users – I support this in principle, noting however that there are worker shortages in many regional areas, meaning this alone will not address that issue. If still within the private sector, it will be imperative that there is adequate financial incentive for these services to be delivered, due to those capable of providing this service earning higher levels of profit from continuing their everyday businesses.

14) Enable less prescriptive installation pathways for closed conduit meters for smaller and low-risk water users.

15) A review of maintenance requirements, such as in-situ accuracy testing, which are not mandated under the national metering standards and are not possible under the current allocation of resources.

16) An increase in DQP support, particularly with burdensome administrative tasks, with a preference to streamlining tasks.

17) I do not support the use of any fee-for-service model or increasing the cost under Water Administration Ministerial Corporation (WAMC) to address the shortage of DQPs. As the industry has been made to accept a 100% user-share to cover the reform costs for the metering reform, the government needs to provide the appropriate level of service, which has not been provided in previous price-determination periods. It is also noted that the origin of this reform is in-part the result of inadequate service delivery by Government previously, in terms of metering and compliance, and it should be a responsibility of Government to rectify this poor service delivery.

Revisit management of telemetry systems.

18) The Government ownership and management of data loggers and telemetry systems – I support the government takeover of telemetry. The single source of truth for water users is their water meter. The additional responsibility to transmit water extraction data from a meter to government (which can also be accessed by the water user) should be held by the government. This would include:
a) Government coordination and bulk procurement, installation, maintenance and ownership of all data-loggers and systems (unless the water users opts-out and selects private ownership).
b) I am of the opinion that until the Government backend system, i.e., the Data Acquisition Service (DAS) is operational and able to receive data, it is not appropriate for telemetry to be required.

19) If prescribing meter and data logger combinations, the combinations provided must be cost-effective.

Revisit Floodplain Harvesting (FPH) measurement pathways.

20) Revisit the Floodplain Harvesting measurement policy to ensure it is effective practically - FPH monitoring and metering standards are not fit for purpose because they are completely impractical (irrespective of metering equipment and their respective issues).

Practical reporting processes: general water usage reporting.

21) I propose that entitlement holders should be permitted to take Floodplain harvested or overland flow water with approved, certified secondary meters until such time that the following barriers are addressed:
a) The shortage of DQPs prepared to install storage meters.
b) The availability of primary storage meters is improved.
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