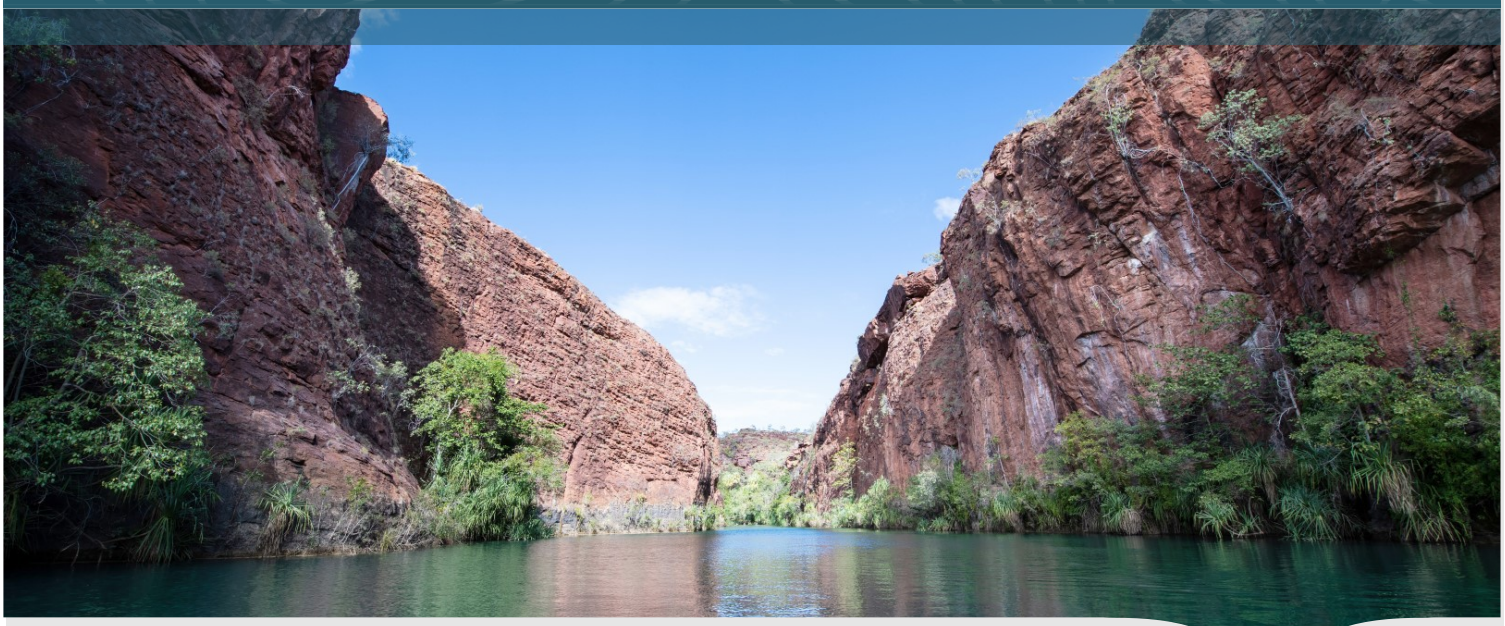
Queensland Government

Department of Regional Development, Manufacturing and Water



Queensland non-urban water measurement policy implementation

Progress report for 2023

2 April 2024

rdmw.qld.gov.au

Acknowledgement of Country

The Department of Regional Development, Manufacturing and Water respectfully acknowledges the Traditional Custodians of Country. We recognise the ongoing spiritual and cultural connection Aboriginal peoples and Torres Strait Islander peoples have with land, water, sea and sky. We pay our deep respects to their Elders past and present, support future leaders, and acknowledge First Nations peoples' right to self-determination.

This publication has been compiled by Water Act Initiatives Branch, Department of Regional Development Manufacturing and Water.

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Introduction

Queensland's non-urban water measurement policy (the policy) outlines how the government intends to strengthen the measurement and reporting of non-urban water take across the state. As the state's regulator of water resources, the Department of Regional Development, Manufacturing and Water (department) is responsible for implementing the policy. We developed an implementation plan to give water users and the community transparency about how we proposed to implement the policy. The plan provides information about key actions and timeframes for implementation, including how we will go about making decisions about future activities to give effect to the policy.

We committed to report annually on implementation progress, publishing our first report last year. This is our second report outlining state-wide progress for the 2023 calendar year and activities planned for 2024.

As well as reporting state-wide, we have reporting responsibilities to the Australian Government across a range of water management and other matters as part of national commitments to the Murray-Darling Basin Compliance Compact such as through the Murray-Darling Basin Metering and Measurement Report Card.

Progress of implementation activities in 2023

In 2023 our focus has been taking steps to establish a clear and transparent regulatory framework to support implementation of Queensland's strengthened non-urban water measurement policy. We have also continued to develop new systems capabilities including our online metering tool to make it easier for entitlement holders to submit their meter reads, and subject to proposed legislative amendments, we have commenced the initial stages of a portal to enable meter validation certificates to be submitted online. This has been in addition to our ongoing metering activities, rolling out new meters and revalidating existing meters to ensure they meet performance and operating standards.

Changes to the regulatory framework

A key achievement in 2023 was the passing of legislative amendments to the *Water Act 2000* (the Water Act) to establish the regulatory framework for strengthened measurement requirements.

The amendments to the Water Act establish the necessary head of power to implement the strengthened measurement policy, focusing on providing clear obligations for water users to measure, record and report water take information. For example:

- The Water Act now states that strengthened measurement requirements apply to volumetric entitlements to take surface water and underground water, which includes surface water entitlements to take overland flow water.
- Offence provisions have been amended to clearly state that compliance action can be taken if a water entitlement holder does not comply with their measurement requirements.
- Existing regulation making powers have been expanded to ensure that the Water Regulation 2016 (the Water Regulation) can state the necessary detail for the operation and administration of the strengthened measurement requirements under the policy.

The next stage of legislative amendments will be to the Water Regulation. This will support further implementation of the measurement policy and will provide the detailed operational and administrative requirements for using measurement devices, such as meters and telemetry.

Metering activities

Metering is an ongoing activity that has been required of water entitlement holders over several years in most parts of the state. This includes the purchase, installation and validation of meters in new metered entitlement areas as well as the revalidation of existing meters every five years, with revalidation dates prescribed in the Water Regulation. New metering and the revalidation of existing meters and a range of metering related initiatives were progressed during 2023.

Meter revalidation

South Region

Water entitlement holders in seven Queensland Murray-Darling Basin surface and groundwater management areas were required to have their meters revalidated by 30 November 2023. These areas included the Central Condamine Alluvium, Oakey Creek Alluvium, Dalrymple Creek Alluvium, Condamine and Balonne water management area, Upper Condamine water management area, Stanthorpe water management area and Moonie water management area. Within these areas, revalidation was required for approximately 1,166 meters involving 600 water entitlement holders.

Across the remainder of the South Region including the Wide Bay Burnett and Southeast Queensland regions, there were four groundwater and one surface water management areas requiring revalidation of water meters. The four groundwater areas included Coastal Burnett (Area A), Lockyer Valley, Cressbrook Creek and Cooloola Sandmass groundwater management areas. The surface water area was the Lower Nerang water management area. Within these areas, there were approximately 1,520 metered works involving 700 water entitlement holders. Most of these metered works were in the Coastal Burnett groundwater management area.

Consultation and engagement with water entitlement holders began in November 2022, with 12-month reminder letters sent to water entitlement holders to remind them of their revalidation obligations. The first letter was followed by 6-month and 3-month reminder letters. Information sessions were also held across the water management areas including Cecil Plains, Surat, Dalby, Stanthorpe, Toogoolawah, Gatton and Bundaberg to engage with entitlement holders and ensure they had opportunities to raise questions or discuss issues. In addition to the information sessions, communication occurred through Facebook ‘push’ messaging, interviews through local media outlets and engagement with peak bodies and member networks including Queensland Farmers Federation, Bundaberg Fruit and Vegetable Growers, Granite Belt Growers Association and the Central Downs Irrigators Limited. Further meetings were also held with specific water advisory groups when requested throughout the revalidation period.

The department has also engaged with certified meter installers and validators (CMIs) and associated businesses to resolve their questions and provide information to ensure they can do their work effectively. CMIs are invited to attend any information sessions the department holds across the metering implementation areas.

The department had received 672-meter validation certificates by the 30 November 2023. Of those water entitlement holders that did not validate their meters by the due date, 19% provided an approved reason why a meter was not required and 13% were determined to have a reasonable excuse, including an inability to engage a CMI within the timeframe and / or lack of availability for parts required for meters. The department is using a compliance and monitoring approach to engage with entitlement holders waiting to have their meters revalidated and those who have not responded (and are past the revalidation date) to ensure the requirements are being actioned.

North Region

Water entitlement holders in the Bowen Groundwater Management Area were required to have their water meters revalidated and validation certificates submitted to the department on or before 30 November 2023. Revalidation was required for 410 meters, involving 175 entitlement holders.

Consultation and engagement to support entitlement holders to achieve compliance with revalidation requirements began in December 2022 and continued until November 2023. The department used a range of activities and approaches including face-to-face sessions, a series of letters, reminder advice and phone calls to support water entitlement holders to meet their metering obligations.

The department also engaged with CMIs in the Bowen area, where the limited number of available CMIs resulted in approximately only a quarter of the meter validation certificates being submitted to the department in time. However, the CMIs advised that all the outstanding meters had inspections booked for the near future. The water entitlement holders that had not yet submitted meter validation certificates were provided advice stating if a meter validation certificate was not received by 29 March2024, the department will follow up through a compliance monitoring approach.

The department had received 99 (24%) meter validation certificates by the due date. Of those water entitlement holders that did not validate their meters by the due date, (12%) provided an approved reason why a meter was not required and the remainder were confirmed ‘already booked-in' with a CMI.

In November 2023, 324 entitlement holders were notified of the requirement to have their meters revalidated and certificates submitted to the department by 30 November 2024. This process, when finalised will see an additional 560 meters revalidated.

New metering

South Region

In November 2022, water entitlement holders in three water management areas in the Queensland Murray-Darlin Basin were notified that they were required to have a meter installed by 31 March 2024.

The department has engaged extensively with these entitlement holders to ensure activities are on track to meet these targets. This included engagement with 325 water entitlement holders in the Kings Creek, Nobby Basalts and Cunningham Alluvium sub-areas and Stanthorpe water management area, where approximately 418 works are required to have new validated meters installed by 31 March 2024. Progress on this work will be summarised in next year’s progress report.

New meters are required to be installed and validated by 30 September 2024 in the Upper Condamine Basalts, Upper Condamine Alluvium Tributaries and the Condamine Balonne Tributaries water management area. Engagement commenced in September 2023 with the 1,462 entitlement holders in these areas being sent initial letters to notify them of their requirement have a new meter installed and validated by the due date. This will see over 2,260 new works metered by 30 September 2024

North Region

The Belyando Suttor Water Management Area in the Burdekin Water Plan area is to become a prescribed metered entitlement areas from 30 November 2024. The department sent notices in November 2023 to 22 entitlement holders informing them of their obligation to install validated meters and submit meter validation certificates to the department prior to 30 November 2024.

Large pattern approved meters

Accurate water measurement is the underlying goal of the strengthened water measurement framework which requires all new and replacement meters to be pattern approved. In recognition of concerns around cost, in 2021 a staged approach to implementing this requirement was put in place. This approach enables:

- existing meters (whether pattern approved or not) to remain in service for as long as they can be successfully revalidated

- non-pattern approved modular meters to continue to be installed for pipe sizes over 600mm.

The current approach requires pattern-approved meters for:

- all new and replacement meters up to and including pipe sizes of 600mm
- all new and replacement self-contained meters over 600mm pipe sizes.

During 2023, the department developed draft decision criteria for determining when the requirement for pattern-approved meters would apply for all new and replacement meters irrespective of size or type of meter. Essentially, this is focussed on establishing a timeframe and approach to remove the ability to install large size non-pattern approved modular meters as new and replacement meters.

The draft decision criteria are consistent with intent of the strengthened water measurement framework and the National Metrological Assurance Framework 2.0 to which all states agreed.

The department will engage with stakeholders, such as peak industry bodies, industry groups and regional irrigator groups, as well as the Australian Government (through the Inspector-General of Water Compliance) on the draft criteria and consider any feedback.

The intent is to finalise and publish the decision criteria in 2024.

Approach for supplemented water

The take of supplemented water in water supply schemes is already largely metered. Our approach to improving metering in water supply schemes therefore focusses on ensuring the standard of existing metering in water supply schemes aligns with metering standards for unsupplemented take outside of water supply schemes. This can be achieved by scheme operators either adopting Queensland's water meter standard (the standard) or non-urban metering or demonstrating how their metering aligns with the standard. Aligning metering standards in this way will ensure a level playing field for all water users.

Many unsupplemented water management areas in Queensland overlap with water supply scheme areas where supplemented water is supplied by a Resource Operations Licence (ROL) holder or a Distribution Operations Licence (DOL) holder. In such circumstances, entitlement holders may take unsupplemented and supplemented water entitlements through the one water meter. The ROL/DOL holder is the owner of these meters that provide 'dual purpose' measurement and is responsible for maintenance, meter reading and replacement. In most of these areas, the unsupplemented water entitlements are prescribed as metered entitlements and therefore subject to revalidation timeframes in the Water Regulation.

Over the last few years, we have been engaging with scheme operators to develop an implementation approach to bring supplemented meters into alignment with the non-urban water measurement policy, initially focussed on major ROL holders Sunwater and Seqwater. This has included negotiations to agree to align with the standard and to develop an approach to revalidate dual product meters in line with revalidation timeframes in the Water Regulation.

During 2024, we will develop an implementation approach for all ROL and DOL holders to bring supplemented water meters into alignment with the policy. Amendments to the Water Act passed in 2023, will further enable this by allowing a ROL or DOL to have conditions that state requirements about measuring water take.

Figure 1: Process for achieving alignment across supplemented water entitlements

Meter validation certificate online portal

With metered entitlements increasing, the number of meter validation activities has also seen growth in the last 12 months. A portal to submit meter validation certificates online direct to the department has substantially progressed. A project team was established to assess current and future ways of working to improve efficiency for submitting and receiving meter validation forms. It is anticipated that an online portal will improve data quality and reduce administrative burden.

Overland flow measurement

Activities to improve the measurement of overland flow water have continued as part of the department's overland flow program of work. Efforts have focused on licencing activities to ensure overland flow entitlements can support the transition to volumetric measurement and that existing water level stations continue to meet performance and operating standards. Progress has also been made to further develop the overarching overland flow measurement framework that provides all the elements to support improved measurement of overland flow water across Queensland.

Overland flow measurement framework

An important element of the overland flow measurement framework is legislation to establish the regulatory framework to support implementation of measurement plans – now required under the strengthened water measurement policy. The requirement for measurement plans will support a more robust and repeatable method for determining the volume of overland flow water taken under an entitlement.

Amendments to the Water Act to establish the head of power to require measurement plans were passed in September 2023. This allows us to start working on the detailed operational and administrative requirements for using measurement plans. These will be the measurement plan requirements that overland flow entitlement holders will need to follow. They will be put into practice through a future Water Regulation amendment.

Other achievements in 2023 included:

- the development of advanced drafts of an overland flow measurement standard and a user guideline for preparing measurement plans
- the development of a user interface for the proof-of-concept water balance calculator
- an assessment of current overland flow take entitlement to develop a strategy to ensure entitlement conditions will support volumetric measurement under the new overland flow measurement framework.

Improved meter reading tools

Telemetry

The Queensland Non-Urban Water Measurement Policy 2022 established the requirement for metered surface water entitlement holders in the QMDB to install telemetry to transmit near real-time meter read data, to the department.

The following key tasks to support implementation of telemetry in the QMDB were progressed in 2023:

- Developed documentation to support implementation of telemetry.
- Commenced development of Queensland specific telemetry training materials for duly qualified persons with Irrigation Australia Limited (IAL).
- An open tender was released for the supply and installation of telemetry devices on surface water meters in the QMDB. The tender also included the secure transmission of data to the department. Goanna Ag was the successful tenderer and devices are being rolled out and system development is nearing completion.

Water IQ App and Customer Portal

The department has continued to develop and enhance the mobile device application, known as the WaterIQ App, for testing with water users in the QMDB. The primary goal of the WaterIQ App is to simplify and enhance the accuracy of the meter reading process.

In December 2022, an enhancement was made to the online service (WaterIQ Customer Portal), providing trial users with an additional platform to submit meter readings and expand the meter reading process. The trial commenced in September 2022 and is scheduled to conclude in June 2024. It aims to assess the effectiveness of automated recognition tools in capturing and submitting meter readings more easily and efficiently for water users.

Future implementation activities

In 2024, the department will deliver key achievements towards establishing a clear and transparent regulatory framework for Queensland's strengthened water measurement policy. Implementation approaches for large pattern approved meters and supplemented water will be defined and published, Telemetry capacity in the QMDB will be significantly progressed with the conclusion of the subsidised telemetry project and key systems development to receive telemetered water information. Elements of the overland flow measurement framework will also continue to be progressed

The intention is to progress amendments to the Water Regulation to give effect to Water Act changes passed in 2023. These amendments will provide the detailed operational and administrative arrangements that support on-ground implementation of the strengthened measurement requirements set out in the policy. Stakeholder consultation will continue to occur as these amendments are progressed.

While water regulation amendments are subject to government approval, these are generally proposed to:

- state authorisations that will be subject to measurement requirements including any thresholds or exemptions
- set out the specific measurement requirements such as the need for a meter, a telemetry device and the need to submit meter reads
- detail certification requirements for measurement devices and provide for a 5-year meter validation certificate expiry
- include faulty measurement device requirements similar in principle to the current faulty meter process
- clearly identify duly qualified persons for the purpose of certifying measurement devices and establish the roles and accountabilities for these duly qualified persons, e.g. certified meter installers and validators
- include transitional arrangements to enable existing meters, and metering processes that have already started, to shift to the new framework when it commences.

Ongoing metering activities

New metering and revalidation

The installation of new meters and revalidation of existing meters will continue throughout 2024 as required through relevant Water Plans and the Water Regulation. The schedule attached to the Non-Urban Water Measurement Implementation Plan provides details on the water management areas that will be subject to these requirements during 2024. The implementation plan is updated at least annually and the schedule will include new metering and revalidation timeframes over several years to provide significant advanced notice to water entitlement holders.

The department has established an internal Metering Board to provide oversight of new metering and revalidation activities across Queensland. This will ensure state-wide consistency across metering activities, support timely and meaningful communication and engagement with water entitlement holders and provide for continuous learning and improvements in metering implementation. The Metering Board will continue to operate throughout 2024 and beyond.

Large pattern approved meters

During 2024, the department will finalise the decision criteria for determining when the installation of pattern approved meters would apply for pipes over 600mm in diameter.

The department will engage with stakeholders, such as peak industry bodies, industry groups and regional irrigator groups, as well as the Australian Government (through the Inspector-General of Water Compliance) on the draft criteria developed during 2023 and consider any feedback.

Once finalised, the department will use the criteria to decide when and how the requirement to install pattern approved meters will apply to pipes over 600 mm in diameter. The department will publish the criteria and decision consistent with transparency requirements under the Metrological Assurance Framework 2.0.

Approach for supplemented water

In 2024 the department will continue to work with scheme operators to negotiate an agreed implementation approach to align supplemented water meters with the policy.

Certified meter installer online portal

Development of the online portal for certified meter installers will continue to take shape. Including stakeholders in the design process is key to ensuring a product is delivered that is fit for purpose. It is anticipated a solution could be available by the end of 2024.

Overland flow measurement

Overland flow measurement framework

The detailed operational and administrative requirements for using measurement plans needed for the future Water Regulation amendment will be further developed during 2024. This will include engagement through the department’s Water Engagement Forum to seek industry feedback on the proposed requirements.

The draft standard and user guideline will be reviewed by industry experts to confirm their suitability to support the development and use of measurement plans under the new framework. This will help ensure that measurement plans will achieve the desired outcome of a more robust and repeatable methodology for overland flow measurement.

On-farm trials are also being planned to test the use of measurement plans, the standard and guidelines and the water balance calculator. The results of the trials will provide valuable information to further refine the requirements for the future Water Regulation amendment.

Improved meter reading tools

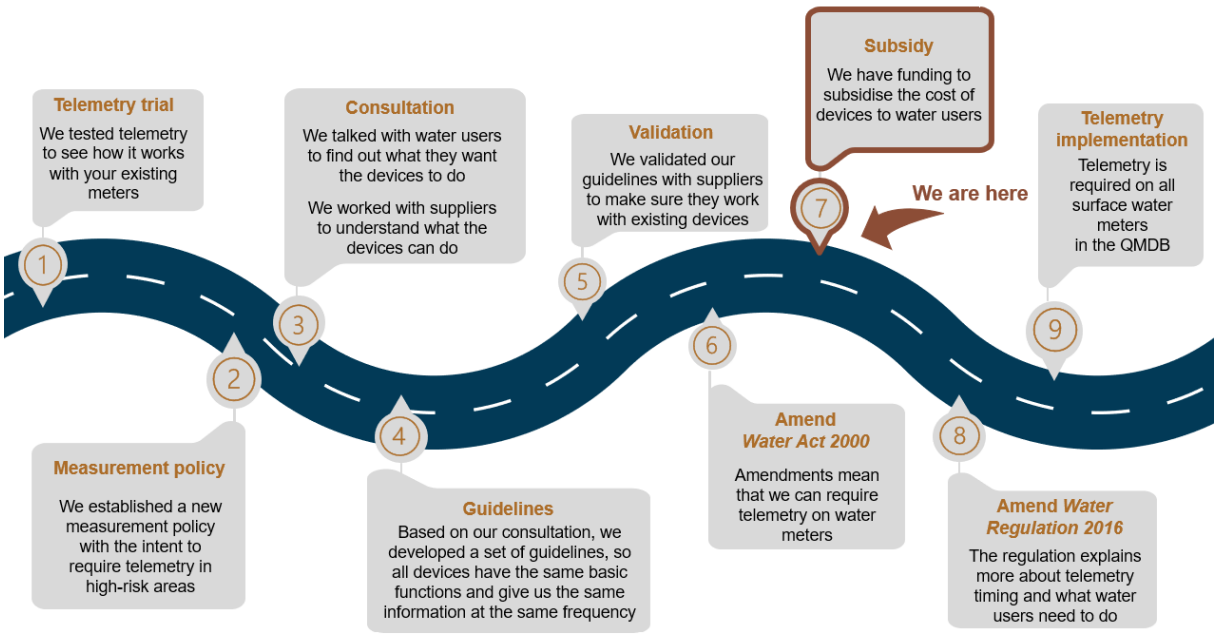
Telemetry

A range of activities will continue to be progressed during 2024 to effectively implement telemetry on water meters in the QMDB. These activities include:

- in conjunction with Irrigation Australia, finalise the telemetry training package for duly qualified persons in Queensland
- develop relevant regulatory support tools and communications materials for staff and stakeholders
- finalise system requirements to support successful, secure receipt of information transmitted from surface water meters
- start developing systems capabilities to enable the analysis of telemetered information for water monitoring and compliance purposes.

The on-ground implementation of the Australian Government-funded initiative to subsidise the costs of installing telemetry devices on surface water meters in the QMDB will also conclude in 2024.

Figure 2: The telemetry journey



WaterIQ app and customer portal

The trial of the WaterIQ App and Water IQ Customer Portal aimed at improving meter reading processes is set to conclude in mid-2024. The outcomes of the trial will undergo analysis to support the decision on advancing the App and Portal as tools to assist all water entitlement holders in submitting future meter reads. Ongoing participant feedback is being collected throughout the trial and will be carefully evaluated to guide the introduction of new features and enhanced functionality for the WaterIQ App and Water IQ Portal, ensuring they align with and meet the evolving needs of our customers.

Further information

Further information on the implementation of Queensland's strengthened non-urban water measurement policy can be found on the department's website: https://www.rdmw.qld.gov.au/water/consultations-initiatives/rural-water-futures/strengthened-water-measurement

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