



Queensland
Government

Department of Regional Development,
Manufacturing and Water



Queensland non-urban water measurement policy implementation plan: Progress report for 2022

First progress report on the delivery of the Queensland
non-urban water measurement implementation plan

Version 01 20 April 2023

Acknowledgement of Traditional Owners

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

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1. Introduction

As the regulator of Queensland's water resources, the Department of Regional Development, Manufacturing and Water (the department) is responsible for implementing Queensland's non-urban water measurement policy (2022). The [strengthened measurement policy](#), a [consultation summary](#) and an [implementation plan](#) were finalised and published in October 2022 when proposed legislation to give effect to the strengthened policy framework was introduced to the Queensland Parliament.

The [Queensland non-urban water measurement policy implementation plan](#) (the plan) is part of the strengthened measurement framework and provides government, water users and the community information on key actions and timeframes for giving effect to the policy, including processes that will inform future decisions regarding implementation activities and timeframes.

The department committed to reporting annually on the progress of implementation. This report is the first such report and outlines the state-wide progress that was made during the 2022 calendar year and identifies activities planned for 2023.

Stakeholder engagement over the past few years has been an integral part of our policy development process. Extensive state-wide consultation with industry and the community on policy proposals (2019 -2021) has informed the development Queensland's non-urban water measurement policy and implementation plan.

During 2022 we focussed on targeted engagement with peak bodies and industry bodies in the QMDB to finalise the policy and refine proposed amendments to the Water Act & Water Regulation to support implementation of the policy.

Comprising 16 peak body and industry groups, our Water Engagement Forum continues to be a key engagement mechanism for the department.

While the department will report at a state-wide level, it also has responsibilities to report on a range of water measurement and other matters to the Australian Government as part of national commitments to the Murray-Darling Basin Compliance Compact, for example the [Murray-Darling Basin Metering and Measurement Report Card](#). The timing of future reports will be aligned with national reporting requirements to ensure consistency and efficiency.

2. Progress of implementation activities in 2022

2.1 Proposed changes to regulatory framework – the Bill 2022

Amendments are required to the *Water Act 2000* (the Water Act) and the *Water Regulation 2016* (the Water Regulation) to support full implementation of Queensland's strengthened non-urban water measurement policy.

Proposed amendments to the Water Act were brought forward in 2022 through the Water Legislation Amendment Bill 2022 (the Bill). These amendments establish the regulatory framework for the strengthened measurement requirements.

The Bill progressed through the Queensland Parliamentary Committee process in 2022. This paves the way for the Bill to move before the Queensland Parliament for debate.

2.2 Metering activities

Metering is an activity that has been required of water entitlement holders over a number of years in most parts of the state. This includes the purchase, installation and validation of meters in new metered entitlement areas declared under the *Water Regulation 2016* (Water Regulation), 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 2022.

2.2.1 Meter revalidation

Water entitlement holders in the Lower Balonne Water Management Area were required to have their water meters revalidated and validation certificates submitted to the department on or before 30 November 2022. Revalidation was required for 111 meters, involving 66 entitlement holders.

Consultation and engagement to support entitlement holders to achieve compliance with revalidation requirements began in March 2021 and continued until November 2022. 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. The department also engaged with Irrigation Australia and certified meter installers. The department received the majority of meter validation certificates from water entitlement holders by the due date and managed the submission of any outstanding certificates through a compliance monitoring approach.

Further North, 199 licence holders in the Bowen Groundwater Management Area were notified of the requirement to have their 409 meters revalidated and certificates submitted to the Department by 30 November 2023. At the same time, South Region notified water entitlement holders in 11 water management areas that their 1937 meters required revalidation by 30 November 2023.

2.2.2 New metering

From 31 December 2022, all water entitlements in the Cape York Water Plan Area were prescribed as metered entitlements under the Water Regulation. This meant relevant water entitlement holders were required to install and validate meters that comply with Queensland's interim non-urban water meter standard by 31 December 2022. The department sent meter notices in November 2021 to 102 entitlement holders informing them of their obligation to install validated meters and submit meter validation certificates to the department prior to 31 December 2022. These entitlement holders include government entities and private (non-government) individuals.

Twenty-four meter validation certificates were received prior to the due date. The department is managing the submission of any outstanding validation certificates through a compliance monitoring approach and is undertaking further engagement with water entitlement holders to complete the validation process.

In South Region, in November 2022, water entitlement holders in three water management areas were notified that they would be required to have a meter installed by 31 March 2024. This is estimated to represent an increase in meters in the Queensland Murray-Darling Basin (QMDB) by 596.

2.2.3 Large pattern approved meters

In 2022, the department engaged an independent water economics firm to guide the development of a decision framework for, and assess the costs of, installing large, pattern approved meters under Queensland's strengthened water measurement framework. This work was successfully completed at the end of 2022, and its results are being used to decide on options and potential timeframes for requiring the installation of pattern approved meters for pipes more than 600mm in diameter.

2.2.4 Meter validation automated solution

In 2022, the department-initiated work on an online solution to improve the process for submitting and receiving meter validation forms. The solution will provide an automated, online system through which certified meter installers (CMIs) can complete and submit meter validation certificates and associated forms to the department. The solution will also improve the speed and accuracy of data import from these forms into departmental systems.

2.3 Overland flow measurement approach

2.3.1 Revalidation of existing meters (water level stations)

The revalidation process includes metered entitlements for the take of overland flow water under the authority of a water licence. This requires landholders with these entitlements to have their water level station meters revalidated and validation certificates submitted to the department on or before 30 November 2022.

The revalidation of water level stations was made complicated by heavy rainfall events during 2022 which filled storages to capacity. Revalidating storage level meters when storages are full has a number of safety and practical limitations. Following consideration of these concerns, the department standard was amended to provide clear guidance on acceptable validation of water level stations in circumstances where safety is a concern. The department managed the submission of outstanding validation certificates for water level stations through a compliance monitoring approach.

2.3.2 Program to improve the measurement of overland flow water take

The program used to improve the measurement of overland flow water take via the introduction of a framework using farm-scale measurement plans is continuing. Progress on implementing this improvement program in 2022 include:

- The department is currently undertaking a process to certify the works that take and store overland flow water on the Border Rivers and Moonie Floodplains to undertake hydrologic modelling to inform the specification of volumetric limits and the issuing of licences. By the end of 2022 approximately 60 per cent of the water licences have been granted.
- Published the non-urban water measurement policy in and subsequent preparation of the Bill that:
 - sets the future requirement for water measurement plans for measuring overland flow take
 - enables the preparation of a technical standard for overland flow measurement
 - provides for appropriate offence provisions to support compliance
- Commenced the preparation of draft technical standards and guidelines to support the preparation and implementation of measurement plans.
- Developed a proof-of-concept water balance calculator which will be a critical tool for the development of measurement plans. This work is being undertaken utilising Commonwealth HNRS funding.

2.4 Improved meter reading tools

2.4.1 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 2022:

- Completed a 10-month trial of telemetry devices on water meters in the QMDB with data collected from 47 installations across 11 remote sites. The trial confirmed that telemetry data can be successfully captured, transmitted, stored and used by the department.
- Published the non-urban water measurement policy in and subsequent preparation of the Bill that enables mandatory telemetry requirements for water meters.
- Completed market research and analysis conducted to better understand telemetry devices, software capabilities and how commercially available products could integrate into departmental data systems.
- Developed documentation to support the telemetry subsidisation program funded by the Australian Government, including a detailed telemetry guideline specifying technical requirements for telemetry devices.
- Commenced engagement with Irrigation Australia Limited (IAL) to develop Queensland specific telemetry training materials for certified meter installers and validators.

2.4.2 Water IQ App

The department developed a mobile device application (WaterIQ App) to trial with water users in the QMDB. The purpose of the WaterIQ App is to simplify and improve the accuracy of the meter reading process. The trial commenced in September 2022 and will run for 12 months. The trial will test the ability of automated recognition tools to capture and submit meter readings more easily and efficiently for water users.

3. Future implementation activities

3.1 Ongoing metering activities

3.1.1 New metering and revalidation

The installation of new meters and revalidation of existing meters will continue throughout 2023 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 2023. 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 2023 and beyond.

3.1.2 Large pattern approved meters

The department will develop a decision framework and potential timeframes for requiring the installation of pattern approved meters for pipes over 600mm in diameter. The department will inform 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) as this work progresses.

3.1.3 Meter validation automated solution

The Meter Validation Automated solution project will continue during 2023. The department will engage with Irrigation Australia Limited, and certified meter installers and validators, to inform the solution development and required functionality. It is anticipated the project will move to an active delivery phase in late 2023.

3.2 Overland flow measurement approach

The department will focus on stakeholder engagement in 2023 to build understanding about Queensland's overland flow measurement approach and seek feedback on the overland flow framework, the water balance calculator and timing of proposed changes.

A documented process to ensure that entitlement specifications enable fit-for-purpose and measurable data under the new framework and guidance for dealings will be delivered.

3.3 Improved meter reading tools

3.3.1 Telemetry

A range of activities will continue to be progressed during 2023 to effectively implement telemetry on water meters in the QMDB. Subject to passage of the Bill, these activities include:

- progress telemetry-related amendments to the *Water Regulation 2016*
- formalise the telemetry guideline into the non-urban water metering standard
- in conjunction with Irrigation Australia, finalise the telemetry training package
- develop relevant regulatory support tools and communications materials for staff and stakeholders.

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 commence in 2023.

3.3.2 WaterIQ App

The trial of the WaterIQ App for improving meter read processes will conclude in 2023. The outcomes of the trial will be analysed to support a decision to progress the App as a tool to support all water entitlement holders to submit their future meter reads. Participant feedback is being collected during the trial and will be evaluated to inform the introduction of new features and further functionality for the WaterIQ App to meet customer needs.

3.4 Proposed changes to regulatory framework – 2023

The Water Legislation Amendment Bill 2022 will move for further consideration by the Queensland Parliament during 2023.

While subject to the passage of the Bill, proposed amendments to the Water Regulation will progress for anticipated commencement in alignment with any commencement of the Bill. The purpose of the proposed Water Regulation amendments is to 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 occur as these amendments are developed and progress.

4. Further information

Further information on the implementation of Queensland's strengthened non-urban water measurement policy can be found the departments website:

<https://www.rdmw.qld.gov.au/water/consultations-initiatives/rural-water-futures/strengthened-water-measurement>

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