



Queensland  
Government

Department of Regional Development,  
Manufacturing and Water

A photograph of a center pivot irrigation system in operation. A central pivot point is visible, with multiple arms extending outwards, each ending in a wheel line with several nozzles. Water is being sprayed from the nozzles onto a lush green field. The background is a dense line of trees.

# Queensland non-urban water measurement policy

Implementation plan

Version 02 21 June 2023

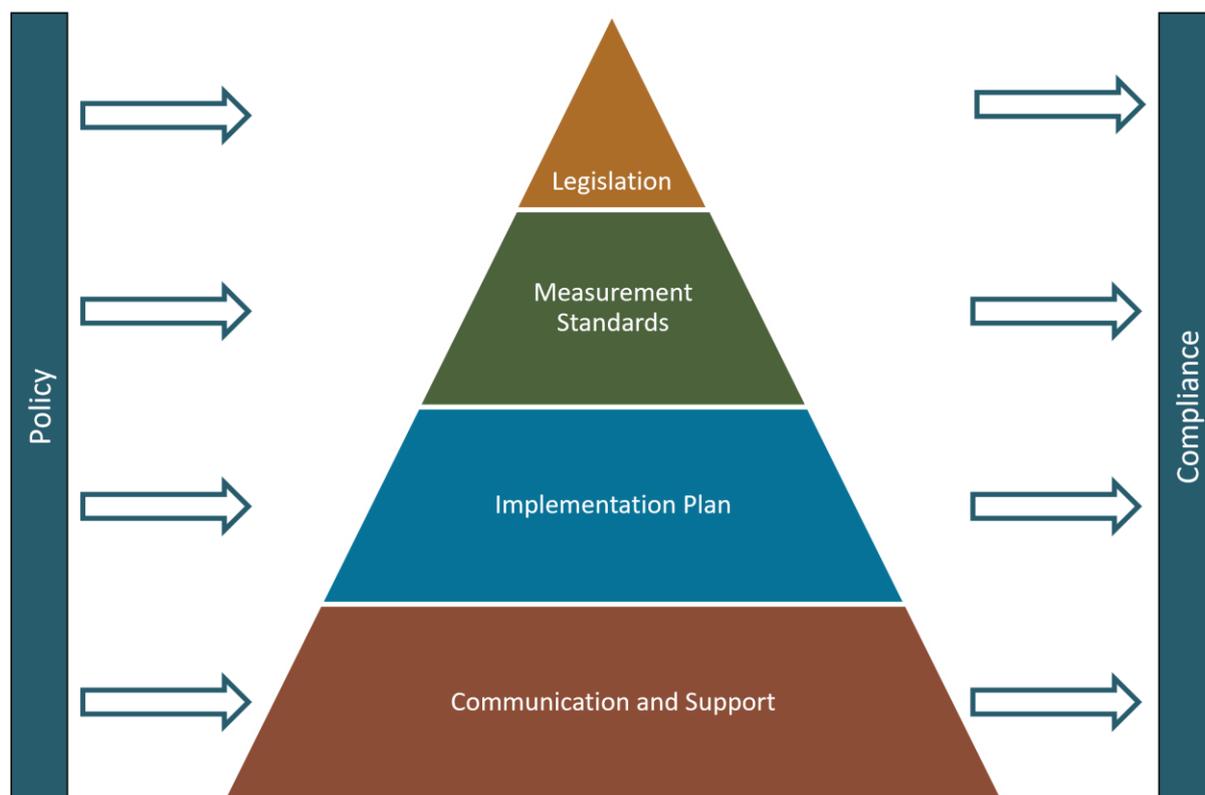
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# 1. Introduction and purpose

The Department of Regional Development, Manufacturing and Water (the department) administers the *Water Act 2000* and is responsible for implementing Queensland's non-urban water measurement policy (the policy).

The non-urban water measurement framework (Figure 1) contains all the elements needed to effectively measure non-urban water extraction in Queensland.



**Figure 1. Queensland's non-urban water measurement framework**

The Queensland non-urban water measurement policy implementation plan (the plan) is part of the framework and provides government, water users and the community the timeframes for implementation of the initiatives under the policy, and the process for future decisions regarding implementation activities and timeframes.

Successful implementation of the policy will result in:

- Increased coverage and standard of metering for direct measurement of non-urban water take
- Measurement of overland flow take at the farm scale
- The receipt of timely and accurate water take data by the department
- Fit for purpose compliance and enforcement for measurement of water take.

This will significantly contribute to the department improving sustainable water management and assuring Queenslanders that water will be available for environmental, economic, social and cultural activities into the future. It also supports Queensland's delivery of its national commitments for the Murray-Darling Basin.

Progress against the implementation plan will be reported annually on the department's website.

## 2. Implementation approach

The department has adopted a risk-based approach to implementing the policy. This approach is based on the outcomes of a catchment level risk assessment of water resource pressure using the following criteria:

- level of development
- amount of allocation
- compliance
- level of competition
- level of metering
- locally significant issues (e.g., commitments made under the Murray-Darling Basin Compliance Compact, regulatory requirements that relate to water measurement and metering, such as metering requirements in statutory water plans).

Implementation of the policy will occur first in catchments where water pressure risk is highest. The department will periodically review the water pressure risk to ensure implementation activities continue to be focussed in water catchment areas of highest risk.

Information on the risk-based approach will be published on the department's website.

## 3. Implementation activities

This section identifies the key actions and activities that will enable the department to successfully implement the policy, as described in Section 1.0.

### 3.1 Increased coverage and standard of metering for direct measurement of water take

- **New metering** timeframes are provided in Attachment 1. Implementation has been prioritised in catchments with the highest water pressure risk and/or where a water plan stipulates a metering timeframe. The implementation timeframes cover a number of years and are intended to provide visibility to water users and other stakeholders of when they are likely to be required to install meters
- **Metering threshold and exemptions** set out in the policy will be applied as new metering is implemented. Water users who take water below the threshold (an annual entitlement volume of 5 megalitres or less) or for stock and domestic, educational or public conveniences will not be required to install a meter.
- **Meter revalidation** timeframes will be implemented according to the timeframes in Attachment 1 and will continue to be required every 5 years.
- The department is committed to the use of **pattern approved meters** in line with the policy and the national framework. The requirements for water users to install and use pattern approved meters will be reviewed at least annually using the decision-making criteria identified in Section 4. The timeframe for implementing requirements for pattern approved meters will be determined as described in Section 4. Any changes to pattern approved meter use requirements will be published on the department's website and incorporated into the Queensland interim water meter standard for non-urban metering (the standard)
- The department will undertake ongoing **meter performance testing** to ensure the metering standard continues to deliver confidence for the department and other stakeholders that meters are performing as required. Where meter performance issues are confirmed through testing, these

will be published on the department's website and amendments made to the standard to address these issues.

- Subject to government approvals, the department will progress relevant legislative changes needed to give effect to the strengthened metering requirements and ensure water user obligations are clear.

### 3.2 Measurement of overland flow take at the farm scale

- Water users in the Queensland Murray-Darling Basin with overland flow licences will be required to provide the department with an overland flow measurement plan (measurement plan), commencing from the end of 2025.
- Measurement plans will be fit for purpose allowing flexibility for different water take arrangements on farm. Water users will be required to have their measurement plans certified and submitted to the department by the due date (to be determined).
- Measurement plans may be subject to a regular review period to be set by the department.
- The department will develop a measurement plan guideline and technical standard, measurement methodologies and systems to enable entitlement holders to achieve compliance with these requirements.
- Subject to government approvals, the department will progress relevant legislative changes to establish the overland flow measurement framework and give effect to measurement plans.

### 3.3 The receipt of timely and accurate water take data by the department

- Risk-based requirements will be implemented to increase the frequency of meter reads. Water users will be required to install **telemetry** on existing and new or replacement meters in areas where water pressure risk is highest and where entitlements have requirements regarding timing and other variable opportunities to take water.
- Surface water entitlements in the Queensland Murray-Darling Basin will be the priority for telemetry implementation. The timeframe for implementing telemetry is to be determined as described in Section 4.
- **Meter reading requirements** will be increased for meters where telemetry is not installed. The timing for these requirements to commence is yet to be determined. Once confirmed, the timings will be published.
- The department will implement processes and systems to ensure that water users can provide meter read data easily and efficiently.
- Subject to government approvals, the department will progress relevant legislative changes to support more timely meter reads and the use of telemetry on meter installations.

### 3.4 Fit for purpose compliance and enforcement for measurement of water take

- The department has clearly defined its regulator role and published its compliance framework, strategy and annual compliance plan. This information can be found at <https://www.rdmw.qld.gov.au/water/regulatory-role>.
- The department will ensure appropriate education, support and guidance material is available for water users to understand their compliance obligations to achieve voluntary compliance.
- Subject to government approvals, the department will progress relevant legislative changes to support enhanced compliance and enforcement for measurement of water take. This includes updating definitions for clarity and providing new accountabilities for:

- certified meter installers to ensure that accountability for meter validation and revalidation rests with the appropriate individual or company; and
- water users to clarify the requirements for a compliant meter and managing entitlements where an entitlement holder chooses not to take water.
- Where compliance is not achieved, the department will take a risk-based approach to decide how best to respond.

## 4. Future evidence-based implementation

The department is committed to improving the measurement and management of water in Queensland. Any future directions will be determined using evidence-based analysis. The implementation approach will be reviewed annually and feedback sought from a steering group including industry representatives.

### 4.1 Pattern approved meters

Implementation timeframes have not been determined for mandating pattern approved meters for all new and replacement meters and telemetry on water meters. The availability of technology and equipment that would support the implementation of these requirements is improving over time. Additional information and data are being sourced by the department to ensure decisions around implementation timeframes for these two key activities are evidence-based.

The department must be confident that:

- requirements can be successfully implemented 'on the ground'
- lifetime costs for water users in implementing these requirements have been identified and considered
- clear benefits can be established

Investigations are currently underway to assess the cost and decision framework for installing large pattern approved meters. The outcome of this work will inform the decision framework and potential timeframes for increasing the requirement for installing pattern approved meters for pipe sizes above 600mm in diameter.

### 4.2 Meter read specifications

A telemetry trial has been undertaken to assist with the development of a regulatory framework and recommend telemetry standards by providing advice on data security options through analysis of the trial. The trial ran from May 2021 to March 2022 and established that telemetry is possible with a range of devices and networks and within existing government infrastructure. Analysis of the trial data indicates that the data is fit for purpose and usable but in some cases may require additional device calibration as is expected with devices deployed in the field. Finally, the trial established recommended components across the device, network and third-party platform that are now being incorporated into the updated meter read data standard.

The meter read data standard will be relevant specifically to telemetry, data loggers and phone apps but will also be extended to the provision of meter read data in general. For example, it will link to the timing requirements in the Water Regulation 2016 and identify the processes by which meter entitlement holders may submit meter reads.

### 4.3 Telemetry

Any future mandatory telemetry requirements will be identified using the risk-based approach identified in Section 2.

## 4.4 System functionality

As system functionality improves, so will the ease by which metered entitlement holders may interact with the department. For example, functionality around meter validation certificates and meter read data are currently being investigated to be more automated than the current administratively intensive process.

## 4.5 Overland Flow Measurement

The department is working with other jurisdictions to develop an overland flow calculator tool to enable water users to calculate and report a volume of overland flow water taken under their water entitlements.

The department is also seeking to trial its proposed measurement plan framework by collaborating with water users in the Queensland Murray-Darling Basin to ensure the framework is effective and practical before making it a requirement on all water users taking overland flow water.

# 5. Further information

For further information please contact your local Department office, see [Contact | Department of Regional Development, Manufacturing and Water \(rdmw.qld.gov.au\)](#)

## 6. Attachments

### 6.1 New metering and meter revalidation timeframes 2023 -2027

Metering timeframes for water management areas are detailed in this schedule. This schedule has been developed using a risk-based approach and accounts for government commitments and water plan requirements. This means the Queensland Murray-Darling Basin (QMDB) is our highest priority with surface water entitlements and ground water entitlements (that are currently not metered) being prioritised for metering from 2023 through to 2027.

As each year is completed, a new year will be added to the schedule to provide long term visibility to water users and other stakeholders of metering timeframes that apply to their water catchment. The schedule will be updated should there be any changes to these timeframes.

For other areas of the state, further priorities will occur prior to 2025 and this metering schedule will be updated to identify where new metering will be required.

The revalidation of existing meters will continue to occur in line with the timeframes set out in Schedule 11 of the Water Regulation 2016.

## 6.2 Metering implementation schedule 2023-27

Table 1: METERING IMPLEMENTATION PLAN for each management area (updated June 2023)

<b>Water Regulation 2000 Schedule 11-meter revalidation</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Queensland Murray-Darling Basin</b>	<p>Central Condamine Alluvium underground water sub-area under the Water Plan (Condamine and Balonne) 2019</p> <p>Condamine and Balonne water management area, water management area zones CBU-01, CBU-02, CBU-03, CBU-04, CBU-05, CBU-06, CBU-07, CBU-08 and CBU-09 under the Water Plan (Condamine and Balonne) 2019</p> <p>Upper Condamine water management area downstream of Cecil Plains Weir to the upstream extent of Chinchilla Weir water supply scheme under the Water Plan (Condamine and Balonne) 2019</p> <p>Oakey Creek Alluvium underground water sub-area under the Water Plan (Condamine and Balonne) 2019</p> <p>Dalrymple Creek Alluvium underground</p>	<p>Border Rivers Alluvium underground water sub-area under the Water Plan (Border Rivers and Moonie) 2019</p>	<p>Gowrie and Oakey Creek water management area, water management area zones GOU-1, GOU-2, GOU-3 and GOU-4 under the Water Plan (Condamine and Balonne) 2019</p> <p>Toowoomba City Basalts underground water sub-area under the Water Plan (Condamine and Balonne) 2019</p> <p>Upper Hodgson Creek Basalts underground water sub-area under the Water Plan (Condamine and Balonne) 2019</p> <p>Upper Weir River water management area and the Lower Weir River water management area under the Water Plan (Border Rivers and Moonie) 2019</p> <p>The plan area under the Water Plan (Warrego, Paroo, Bulloo and Nebine) 2016</p>	<p>Jimbour Creek Alluvium underground water sub-area under the Water Plan (Condamine and Balonne) 2019</p>	

<b>Water Regulation 2000 Schedule 11-meter revalidation</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
	<p>water sub-area under the Water Plan (Condamine and Balonne) 2019</p> <p>Stanthorpe water management area under the Water Plan (Border Rivers and Moonie) 2019</p> <p>Moonie catchment under the Water Plan (Border Rivers and Moonie) 2019</p>				
<b>Remainder of South Region – outside of the QMDB</b>	<p>Lower Nerang water management area under the Water Plan (Gold Coast) 2006</p> <p>Cressbrook Creek alluvial groundwater management area under the Water Plan (Moreton) 2007</p> <p>Implementation area 1 for Lockyer Valley groundwater management area under the Water Plan (Moreton) 2007</p> <p>Coolooloa Sandmass subartesian area under the Water Plan (Mary Basin) 2006</p> <p>Subcatchment area J under the Water Plan (Burnett Basin) 2014</p>	<p>Coastal Burnett groundwater management area for the following groundwater sub-areas shown on the Water Plan (Burnett Basin) 2014, schedule 5, maps A and B:</p> <p>(a) Kolan – Burnett B;</p> <p>(b) Burnett – Elliot B;</p> <p>(c) Elliot-Gregory B;</p> <p>(d) Fairymead B</p> <p>Boyne and Stuart Rivers water management area under the Water Plan (Burnett Basin) 2014</p>	<p>Christmas Creek water management area under the Water Plan (Logan Basin) 2007</p> <p>Running Creek water management area under the Water Plan (Logan Basin) 2007</p>	<p>Eastern Downs Marburg groundwater sub-area under the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017 - water licence 100875</p> <p>Gatton Esk Road Marburg groundwater sub-area and Gatton Esk Road Woogaroo groundwater sub-area under the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017 all water licences, other than water entitlements for stock or domestic purposes only and water licences 406711, 406717, 406722, 406725, 406732, 406735, 406738, 406751, 406755,</p>	

<b>Water Regulation 2000 Schedule 11-meter revalidation</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
	<p>Coastal Burnett groundwater management area for the following groundwater sub-areas shown on the Water Plan (Burnett Basin) 2014, schedule 5, maps A and B:</p> <p>(a) Kolan – Burnett A;  (b) Burnett – Elliot A;  (c) Elliot-Gregory A;  (d) Fairymead A</p>			<p>406761, 406807, 406867, 407196, 409175</p> <p>Widgee Creek subcatchment area under the Water Plan (Mary Basin) 2006</p> <p>Six Mile Creek subcatchment area under the Water Plan (Mary Basin) 2006</p> <p>Wide Bay Creek subcatchment area under the Water Plan (Mary Basin) 2006</p> <p>Tinana Creek subcatchment area under the Water Plan (Mary Basin) 2006</p>	
<b>Northern Region</b>	<p>Bowen groundwater management area on plan CAS3065</p>	<p>Lower Callide, Prospect Creek and Upper Callide groundwater sub- areas under the Water Plan (Fitzroy Basin) 2011</p> <p>Burdekin groundwater management area on plan AP10054</p> <p>Lakeland water licence zones 1 and 2 of the Cook underground water management area under the Water Plan (Cape York) 2019</p> <p>Mulgrave-Russell catchment area under</p>	<p>Dawson Valley water management area under the Water Plan (Fitzroy Basin) 2011</p> <p>Fitzroy water management area under the Water Plan (Fitzroy Basin) 2011, other than Fitzroy B</p> <p>Nogoa Mackenzie water management area under the Water Plan (Fitzroy Basin) 2011</p>	<p>Mulgildie North Hutton groundwater unit, Mulgildie North Precipice groundwater sub-area and Mulgildie South Precipice groundwater sub-area under the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017</p> <p>Isaac River and Connors River catchment area on plan AP14807</p> <p>Flinders River catchment area under the Water Plan (Gulf) 2007</p>	<p>The plan area under the Water Plan (Cape York) 2019, other than the following water licence zones-</p> <p>(a) Lakeland water licence zone 1;  (b) Lakeland water licence zone 2</p>

<b>Water Regulation 2000 Schedule 11-meter revalidation</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
		<p>the Water Plan (Wet Tropics) 2013</p> <p>Gilbert River catchment area under the Water Plan (Gulf) 2007</p>		<p>Comet water management area under the Water Plan (Fitzroy Basin) 2011</p> <p>Don and Dee Rivers and Alma Creek water management area under the Water Plan (Fitzroy Basin) 2011</p> <p>Don and Dee groundwater sub-area under the Water Plan (Fitzroy Basin) 2011</p> <p>Subcatchment area E under the Water Plan (Burdekin Basin) 2007, other than Mistake A water licence zone water licence 621164</p> <p>Subcatchment area F and subcatchment area G under the Water Plan (Burdekin Basin) 2007</p> <p>The plan area under the Water Plan (Barron) 2002</p> <p>The plan area under the Water Plan (Boyne River Basin) 2013</p> <p>The plan area under the Water Plan (Calliope River Basin) 2006</p> <p>The plan area under the Water Plan (Mitchell) 2007</p>	

<b>Water Regulation 2000 Schedule 11-meter revalidation</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
				<p>The plan area under the Water Plan (Pioneer Valley) 2002</p> <p>The plan area under the Water Resource (Whitsunday) Plan 2010</p> <p>Theresa Retreat water management area under the Water Plan (Fitzroy Basin) 2011</p>	

Note: The information above is summative information taken from the Water Regulation 2016, Schedule 11 and is a guide for information only. Schedule 11 of the Water Regulation states the specific areas, entitlements , any exemptions, and revalidation for metered entitlements.

New areas to be metered	2023	2024	2025	2026	2027
<b>Queensland Murray-Darling Basin</b>	<p>Nobby Basalts Underground Water Sub-Area under the Water Plan (Condamine and Balonne) 2019</p> <p>Cunningham Alluvium Water Underground Water Sub-Area under the Water Plan (Condamine and Balonne) 2019</p> <p>Stanthorpe Water Management Area under the Water Plan (Border Rivers and Moonie) 2019</p>	<p>All remaining Upper Condamine Alluvium (Tributaries) Underground Water Unit under the Water Plan (Condamine and Balonne) 2019</p> <p>All remaining Upper Condamine Basalts Underground Water Unit under the Water Plan (Condamine and Balonne) 2019</p> <p>Condamine and Balonne Tributaries Water Management Area under the Water Plan (Condamine and Balonne) 2019</p> <p>Condamine-Balonne tributaries management area</p> <ul style="list-style-type: none"> <li>• Zone CBT-04</li> <li>• Zone CBT-05</li> <li>• Zone CBT-06</li> <li>• Zone CBT-07</li> <li>• Zone CBT-08</li> <li>• Zone CBT-09</li> </ul>	<p>All remaining water entitlements to take surface water, within the plan areas for the Water Plan (Border Rivers and Moonie) 2019, the Water Plan (Condamine and Balonne) 2019, and the Water Plan (Warrego, Paroo, Bulloo and Nebine) 2016</p> <p>All remaining water entitlements to take groundwater, under the Water Plan (Condamine- Balonne) 2019, Water Plan (Border Rivers and Moonie) 2019, and the Water Plan (Warrego, Paroo, Bulloo and Nebine) 2016</p> <p>Condamine and Balonne Tributaries Water Management Area under the Water Plan (Condamine and Balonne) 2019</p> <p>Condamine-Balonne tributaries management area</p> <ul style="list-style-type: none"> <li>• Zone CBT-01</li> <li>• Zone CBT-02</li> <li>• Zone CBT-03</li> </ul>		

New areas to be metered	2023	2024	2025	2026	2027
			<p>Surat Hutton groundwater sub-area under the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017</p> <p>Northern Weir River</p> <p>Border Rivers Underground Water Management Area under the Water Plan (Border Rivers and Moonie) 2019</p> <p>Water licences to take groundwater from the Balonne River Alluvium or the Maranoa River Alluvium in the St George Alluvium (Condamine and Balonne (deep), Condamine and Balonne (shallow), Moonie (shallow), and Warrego Paroo Bulloo Nebine (shallow)) groundwater units</p>		

New areas to be metered	2023	2024	2025	2026	2027
<b>Remainder of South Region – outside of the QMDB</b>				Barker Barambah Creek Water Management Area	Upper Burnett and Nogo Rivers Water Management Area Lower Burnett and Kolan Rivers Water Management Area Warrill Valley Water Management Area Three Moon Creek Water Management Area
<b>Northern Region</b>		The plan area under the Water Plan (Whitsunday) Plan 2010 The Belyando Suttor Subcatchment Area under the Water Plan (Burdekin Basin) Plan 2007			

Department of Regional Development,  
Manufacturing and Water  
GPO Box 2771, Brisbane, Queensland 4001  
13 QGOV (13 74 68)  
[info@rdmw.qld.gov.au](mailto:info@rdmw.qld.gov.au)  
[rdmw.qld.gov.au](http://rdmw.qld.gov.au)



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