

Frequently asked questions

The answers to the following questions supplement other information regarding the NSW Water metering framework, including the regulation and policy, which are available on the department's [website](#).

Contents

General	1
Timeframes	2
Metering Thresholds.....	2
Metering Standards	4
Tamper-evident seals.....	4
Duly qualified persons	5
Faulty metering equipment	6
Recording and reporting	6
Data logging and telemetry.....	7

General

What will the new metering framework achieve?

The [metering framework](#) will result in real and positive change for water management in NSW. Water is a precious resource that needs to be properly managed for current and future generations.

The new framework will significantly improve the standard and coverage of non-urban water meters in NSW by setting clear rules around who needs a meter and the standards that need to be met. The standards are based on the objective that meters are accurate, tamper-proof and auditable.

Why is the government implementing this when there is a drought?

The drought emphasises how important it is for water to be taken fairly and according to the rules. The new metering framework is part of the Government's long-term plan for better water management in NSW. Metering ensures that we know whether water is being taken according to the rules. The vast

majority of water users do the right thing, and they want those who don't to be held accountable.

The government however recognises that the current drought conditions are making things very tough for farmers. The [Farm Innovation Fund](#) is an initiative to help NSW farmers. It provides loans to meet the costs of carrying out capital works such as metering that benefit the long-term profitability of a business. The [Department of Primary Industries Drought Hub](#) contains information about the drought, including financial assistance. View a [summary of available financial assistance](#).

Who will carry out compliance in relation to the new metering rules?

The Natural Resources Access Regulator (NRAR) is responsible for compliance and enforcement of water laws in NSW. The [Metering Regulations – NRAR compliance approach](#) outlines NRAR's approach to the new metering rules. It is likely that NRAR will conduct random audits during each roll out stage to ensure compliance. Any suspected breaches can be reported to the NRAR's compliance hotline on 1800 633 362 or by email to water.compliance@nrar.nsw.gov.au.

Who will pay for my meter?

Water users will be responsible for the costs associated with buying, installing and maintaining their own meters.

What if I am not able to comply with the new metering rules by my roll-out date because there is no water available with which to test my meter, or there is no duly qualified person available?

NRAR has also released its [compliance approach](#) which explains how it will treat instances of non-compliance. NRAR expects water users to make arrangements well ahead of their metering start date to bring

their equipment into compliance and be able to demonstrate they have made every effort to comply with the metering rules.

How do the metering rules tie in with water resource plans and water sharing plans?

The metering rules will replace any metering or measuring requirements in [water sharing plans](#). This means there will be a consistent and streamlined metering framework across NSW, rather than separate requirements for separate water sharing plan areas. Once the metering rules have taken effect, the metering provisions in water sharing plans will be removed.

How many meters will be affected in each year of the roll-out?

Based on best available data, the numbers of works that will need to have a compliant meter by the roll-out date are:

- 1,260 surface water pumps 500mm and larger - by 1 December 2020
- 7,600 additional works - by 1 December 2021
- 7,380 additional works - by 1 December 2022
- 6,000 additional works - by 1 December 2023.

Note: some of these works may already have a compliant meter installed.

Shouldn't all water users be metered?

Government is mindful of the need to ensure that the costs of metering do not outweigh the overall benefits. Based on current market considerations, the benefits of metering do not outweigh the costs for those small users who represent only a very small proportion of take. The metering thresholds will be reviewed in 5 years against the objectives and the metering thresholds could be adjusted to include more works.

Timeframes

When do the metering rules commence?

The roll-out dates for metering rules are as follows:

- 1 April 2019— Anyone replacing an existing meter or installing a new meter from 1 April 2019 must install a pattern approved meter (except for open channels) and be installed by a duly qualified person in accordance with Australian Standard 4747, with tamper-evident seals and a compatible local intelligence device (LID) that stores the meter's readings.
- 1 December 2020—for all surface water pumps 500 mm or larger
- 1 December 2021—for all remaining works in the inland northern region
- 1 December 2022—for all remaining works in the inland southern region
- 1 December 2023—for all remaining works in the coastal regions.

To see which region you are in, see Attachment D of the NSW Non-Urban Water Metering Policy, which lists the water sharing plans and *Water Act 1912* licences within each region.

Telemetry will also be required for all surface water works, except pumps less than 200 mm from the relevant roll out date.

Should I plan to have my metering equipment installed ahead of time?

We encourage all water users to become familiar with how the new metering requirements will apply to them, and to plan well ahead of their commencement date to ensure that they are compliant by their roll-out date. You may choose to comply with the new requirements at any time before your roll-out date.

Metering Thresholds

Do I need a meter?

If your work meets any of the metering thresholds, you will be required to have metering equipment installed on the work.

Use our [interactive metering guidance tool](#) to understand if the metering rules apply to your works and what you need to do to comply with the rules.

Further detailed information about the metering thresholds is provided in Part 1 of the NSW Non-Urban Water Metering Policy.

What if the pump size is not stated on my work approval?

If there is no size stated on your work approval for a surface water pump, the work will be required to be metered and will require telemetry. Water users can amend the work approval to record the correct size by contacting their relevant licensing authority.

WaterNSW customers should apply through [WaterNSW](#) and local government water authorities and other government customers should apply through the [Natural Resource Access Regulator](#).

Why isn't water taken under basic landholder rights (which includes stock and domestic rights) being metered?

The NSW Government recognises that water taken under basic landholder rights is an important issue and it has committed to consult publicly on this matter.

Why isn't floodplain harvesting water being metered?

Measurement of floodplain harvesting is a separate project being addressed as part of the Healthy Floodplains Project.

Will the same metering rules apply to licensed environment water?

Yes. The metering rules will apply equally to licensed water taken for irrigation and the environment, provided the water is taken by a work and can be measured with a meter.

Will the same metering rules apply to Irrigation Corporations?

The metering rules will apply to Irrigation Corporations at their offtake. The metering rules will not apply to individual users taking water within an irrigation corporation's area of operations unless they are directly taking water from a water source.

Are there any exemptions?

Yes, there are exemptions from the metering rules for:

- works solely used to take water under basic landholder rights
- water take that is exempt from the requirement for a water access licence or water taken under a floodplain harvesting access licence
- works granted an exemption by the minister because the take of water cannot be measured using a meter
- works tagged as inactive on the authority
- works that are not nominated by an access licence – for example 'on-farm' works that are used to convey water that has already been taken from a water source.

I don't have fixed or permanent pumping equipment. Do I still need to comply with the metering rules?

Yes, portable pumps are subject to the same standards as fixed and permanent works.

Will a groundwater extraction site that uses a spearpoint system require a meter?

Yes, all spear points need to be metered.

Do the metering rules apply to gravity-fed pipes without pumps?

Yes, gravity-fed pipes will need to be metered and will need to be fitted with tamper evident seals, a local intelligence device (LID) and telemetry by the roll out date.

Do the metering rules apply to wells?

Yes, all wells will need to be metered.

If there are multiple bores below 200 mm on the same landholding or authority, will the metering threshold apply?

All depends where the bores collectively meet the multiple bore threshold. This rule also applies to multiple pumps on the same landholding or authority.

Our [interactive metering guidance tool](#) will help you to understand whether the metering rules apply to your works and what you need to do to comply with the rules.

Metering Standards

What type of meter do I need to install?

Use our [interactive metering guidance tool](#) to understand if the metering rules apply to your works and what you need to do to comply with the rules.

From 1 April 2019, all new and replacement meters must be pattern approved (except for open channels), installed by a duly qualified person in accordance with Australian Standard 4747, have a local intelligence device (LID) and tamper-evident seals.

The Murray Darling Basin Authority (MDBA) maintains a list of [pattern approved non-urban water meters](#). This list is updated regularly when new meters become pattern approved.

Can I keep my existing meter?

Water users with existing meters will be allowed to keep their meters if they meet certain requirements. Users will need to demonstrate, by their roll-out date, that the meter is either pattern approved and validated, or accurate. They will also need a DQP to install a local intelligence device (LID) and tamper-evident seals, if not already installed. Telemetry will be required for all surface water works (except pumps less than 200 mm).

You can also use our interactive metering tool to understand if the metering rules apply to your works and what you need to do to comply with the rules.

Are pattern approved meters more accurate than non-pattern approved meters?

Pattern approved meters are factory tested to ensure they conform to national standards prior to installation. Each meter is issued with a certificate of calibration. The National Metering Standards have strict accuracy

requirements of $\pm 2.5\%$ under laboratory test conditions and $\pm 5\%$ under field conditions.

When do I need to have my meter validated?

Metering equipment must be validated on installation, at five-yearly intervals (or every 12 months in the case of open channels) and in any other circumstances in which validation is required under the Australian Standard 4747 (for example any maintenance work that is carried out that requires breaking the seal).

What other maintenance requirements apply to my meter?

All meters must be maintained in accordance with the [Maintenance Specifications 2019](#). These specifications set out the maintenance that needs to be carried out, the frequency of maintenance, and whether the maintenance needs to be carried out by a duly qualified person or by the licence or approval holders.

Tamper-evident seals

What is classified as tampering?

Under the *Water Management Act 2000*, a person may be found guilty of an offence if they interfere with, damage, destroy or disconnect any metering equipment that has been installed in connection with a water management work.

A person may interfere with metering equipment by unsealing any sealed component, blocking any part of the equipment, attaching a device that may affect the operation of the equipment, or disconnecting the equipment from its power source.

A higher offence may apply if the tampering is intentional or reckless.

Do tamper-evident seals need to have a seal number?

Yes. Each tamper-evident seal will have a unique number. Duly qualified persons validating metering equipment will record the seal number on the validation form.

Will the government make and issue tamper-proof seals?

Under the metering rules, the NSW Government has appointed Irrigation Australia Limited (IAL) as the approved provider of all tamper-evident seals.

Only current duly qualified persons can purchase seals from the website and each certified person will need to login to the [IAL website](#) using their membership credentials before a purchase can be made.

What measures are in place to stop someone from cutting off a tamper-evident seal and replacing it with another one?

The government tamper-evident seals are recorded by the duly qualified person on the metering equipment's validation form. This record will be incorporated into a register maintained by the government to check seal numbers.

Meter tampering is an offence under the *Water Management Act 2000*.

A duly qualified person **must** notify the Natural Resources Access Regulator (NRAR) within seven days if they know or reasonably suspect any tampering on metering equipment they are installing or are carrying out work on.

It is an offence for a duly qualified person to fail to notify in these circumstances.

You can connect NRAR on 1800 633 362 during business hours or use the NRAR's online reporting form at: <https://www.industry.nsw.gov.au/natural-resources-access-regulator/report-suspicious-water-activities/report-suspicious-activity>.

Duly qualified persons

Who is a duly qualified person?

A duly qualified person is a person with the qualifications, skills or experience to carry out certain work in relation to metering equipment.

Water users must use a duly qualified person to carry out certain work in relation to their metering equipment, including installation, certain maintenance requirements, validation and checking the accuracy of an existing meter.

The list of qualifications and skills for duly qualified persons is in Attachment E of the NSW Non-Urban Water Metering Policy. There are different skills required for different activities.

How can water users find a duly qualified person?

- To find a certified meter installer in your region visit - www.irrigationaustralia.com.au
- To find a certified practising hydrographer visit Australian Hydrographer Association - aha.net.au.

Will there be enough duly qualified people to carry out the work?

We are working closely with Irrigation Australia and Training Services NSW to increase the number of duly qualified persons available throughout NSW to do this work in time for the metering roll-out dates.

If I want to keep my existing meter, what do I need to do?

Water users with existing meters will be allowed to keep their meters if they meet certain requirements. Users will need to demonstrate, by their roll-out date, that the meter is either pattern approved and validated, or is not pattern approved, but accurate. See our [forms, certificates and fact sheets](#) page for more information.

Can a duly qualified person validate their own work?

Yes. If a duly qualified person validates their own equipment, they must indicate they are validating their own metering equipment.

Can a duly qualified person access meter data on-site for maintenance purposes?

Duly qualified persons can read meter data on-site for maintenance purposes.

Who is responsible for ensuring the accuracy of the validation certificate?

The responsibility remains with the authority/approval holder to ensure that their metering equipment is accurate. This extends to any forms or certificates completed by duly qualified persons.

When do forms completed by a duly qualified person need to be provided to the water user?

Duly qualified persons must provide water users with certificates of validation, design or accuracy check within 7 days of completing the work. The water user has 28 days from the date he/she receives the certificate to submit it to the Department.

If your DQP submits the certificate in the DQP Portal, then you will receive automatically the certificate by email. You must keep the certificate for 5 years.

What is the DQP Portal

The DQP Portal is a secure website that can be used on a computer, laptop, tablet, or smartphone. It is the starting and ongoing entry point for DQPs to assist the water user to:

- register intent to order and install a new or replacement Local Intelligence Device (LID)
- notify completion of configuration, installation, and testing of the LID
- generate the Validation Certificate to notify the water user, and, on behalf of the water user, notify DPIE, NRAR, and WaterNSW, that the telemetered meter installation is compliant

The Portal is maintained and supported by WaterNSW.

How will another duly qualified person know if a meter has failed a validation?

We recognise that accessing historical validation certificates can help duly qualified persons perform their functions.

We encourage duly qualified persons to ask water users for a copy of their previous validation certificates before going on-site.

We also anticipate that duly qualified persons will be able to access historical certificates through the portal that is currently being developed. More information will be provided in due course.

Faulty metering equipment

What happens if my metering equipment stops working?

All water users must report faulty metering equipment within 24 hours to WaterNSW – using their online [Section 91I form](#).

An offence applies for failing to report faulty metering equipment within 24 hours.

Metering equipment includes telemetry.

If a meter fails and it is not being used, does the water user still need to notify the Department, or can they wait until they want to take water?

Yes, even if they are not taking water, water users must notify WaterNSW within 24 hours of becoming aware that a meter is not working properly or has stopped working, using their online form Report faulty metering equipment.

Recording and reporting

What records should I keep?

There are three types of water take information to be recorded:

1. Licensed Water take;
2. Water take under basic land holder rights (BLR) or licence exemption only if the work is used to take both licensed water and under BLR or other licence exemption; and
3. confirming water is taken according to conditions.

The records to keep from your roll out dates will depend on whether your work needs to be metered or not, and whether you have telemetry.

- If you **do not have a meter** you will need to keep daily records for all three types of water take information
- If you have **only a meter** your LID automatically stores your water take. You will need to read your meter read every month, and also record any other water take under BLR or licence exemption – so the volumes can be subtracted from your licensed entitlement.
- If you have **a meter and telemetry** your water take is recorded automatically. You would only be required to record any other water take under BLR or licence exemption – so the volumes can be subtracted from your licensed entitlement.
- If you have a meter and telemetry you will only need to report monthly your water taken under BLR or licence exemption – so the volumes can be subtracted from your licensed entitlement.

For all users, if your conditions require you to confirm you can take water, you will also need to keep daily records to confirm this,

These new records will replace the logbook requirements on your approval, or access licence.

You will need to keep the records for 5 years, as you did for the logbooks.

The forms, and a detail explanation of what to record, will be available on the WaterNSW website, closer to your roll out date. A new reporting portal is being developed so you will be able to record your water take information online.

When should I submit my records?

The reporting requirements also depend on whether your work needs to be metered or not, and whether you have telemetry.

- If you **do not have a meter** you will need to submit your records 28 days after the end of the water year.
- If you have **only a meter** you will need to submit 14 days after the end of each month your meter read and any other water take BLR or licence exemption – so the volumes can be subtracted from your licensed entitlement.

More detailed information about submitting forms will be available on the WaterNSW website, closer to your roll out date. A new reporting portal is being developed so you will be able to submit your water take information online.

Data logging and telemetry

What is data logging and telemetry?

In simple terms, data logging and telemetry is the process of recording and transmitting the readings of an instrument, such as water take data from a meter. The benefits of data logging and telemetry include:

- timely information - to assist water users with their business decisions
- efficiency - telemetry reduces the need for water users to physically go to the meter site
- data integrity and auditability - giving greater confidence to the community that water is being taken according to legal frameworks and licence conditions
- efficient river and water management - WaterNSW can manage regulated rivers more efficiently with up to date information and government can better monitor water usage

What is the Data Acquisition Service (DAS)?

To enable the secure transmission of telemetered data, the department procured a cloud-based data acquisition service (DAS). The DAS is a cloud-based platform that collects and stores consumption data from non-urban water meters. The LID transmits meter data over a secure network to the DAS. Eagle.io provides the DAS on behalf of DPIE. The DAS makes data available to

stakeholders such as NRAR, WaterNSW, DPIE and water users.

Do I need a local intelligence device (LID) or a telemetry device?

Under NSW's metering rules, all surface and groundwater works captured by the rules need to be fitted with an accurate meter and a compatible telemetry-capable local intelligence device (LID) (a Local Intelligence Device or 'LID').

Although all LIDs need to be equipped with the capability to transmit data, via telemetry to the DAS, only water users with surface water works, except pumps less than 200mm, need to utilise this capability.

All water users who are captured by the metering rules will need a LID installed which is capable of transmitting information via telemetry (even if that capability is not utilised) and meets the functional and security requirements of the DAS and has been installed by an authorised Duly Qualified Person (DQP). From 1 April 2019, all new and replacement meters must be pattern approved (except for open channels) and must be connected to a compatible LID.

More information is available on our [telemetry page](#).

What type of LID do I need to install?

To give water users greater confidence about devices or solutions that have been confirmed as being compliant with the metering rules, the department will maintain a [list of compatible devices and solutions](#) that have been tested and found to meet the functional and security requirements of the DAS. It is the water user's responsibility to ensure they purchase a fit-for-purpose device that meets their individual needs.

Who can install and register my LID to the government telemetry network?

Under the Regulation, only DQPs can install LIDs. A DQP is someone with the qualifications, skills or experience to carry out certain work in relation to metering equipment, as defined by the Regulation.

Different types of DQPs are required to carry out different work in relation to metering equipment. DQPs include certified meter installers, certified practising hydrographers and telemetry technicians.

How are the devices being tested for inclusion on the compatible devices list?

We have designed the data acquisition service to be supportive of an open market. The Department has published the following technical standards to allow vendors to develop solutions that are compatible with the data acquisition service:

- [Data Logging and Telemetry Specification 2020](#)
- [DAS Logged Data Format Guidelines](#)

The Department has, and will continue to, engage with vendors during the design and rollout of the data acquisition services to give them the opportunity to participate in the market.

More information is available on our [telemetry](#) page.

Who pays for the ongoing costs of telemetry?

Water users are responsible for the costs of buying, installing and maintaining all metering equipment, including telemetry. Telemetry equipment includes the compatible telemetry device as well as a sim card and monthly telemetry subscription.

Can I choose to have telemetry even if I'm not required to?

Yes, contact a DQP who will be able to assist in installing your LID with telemetry.

When do I need to comply?

The metering framework is being rolled out in a staged manner over five (5) years.

The first roll-out date is 1 December 2020 for all water users who have surface water pumps 500 mm and above. All these water users will require telemetry.

Other water users will need to ensure that they have compliant metering equipment by

their relevant regional roll-out date, shown below:

- 1 December 2021—for all remaining works in the inland northern region
- 1 December 2022—for all remaining works in the inland southern region
- 1 December 2023—for all remaining works in the coastal regions.

To see which region you are in, see Attachment D of the [NSW Non-Urban Water Metering Policy](#), which lists the water sharing plans and *Water Act 1912* licences within each region.

All surface works, excluding pumps less than 200 mm, will require telemetry.

Why isn't groundwater required to be telemetered as part of this framework?

In the current market, the benefits of telemetry do not outweigh the costs for smaller surface water users and for groundwater users. However, the telemetry threshold will be reviewed in five years and the requirement for telemetry could be adjusted.

You still can choose to install telemetry on your groundwater works.

More information is available on our [telemetry](#) page.

Is telemetry required for open channels, diversion channels, regulators and dams?

Yes. All surface water works (except pumps below 200mm) require telemetry.

Is floodplain harvesting water take required to have a telemetry device?

Measurement of floodplain harvesting water is a separate project being addressed as part of the [Healthy Floodplains Project](#).

How can I install telemetry when I have mobile black spots on my property?

Water users should contact a DQP for advice on checking cellular coverage.

Can water users use third party telemetry systems to connect to the data acquisition service?

Government recognises that many diligent water users have already installed telemetry systems to help them monitor and manage their water use.

We recognise the value in exploring this matter further, however its immediate priority is ensuring that the DAS is fully operational. We will continue to post information about this matter on our [telemetry](#) page.

Is the telemetry data real time?

Works that are required to have telemetry will need to record water take data at least hourly, and report this information daily to the government's data acquisition service.

Who is the owner of the telemetry system?

WaterNSW will be the administrator of the telemetry system.

Who owns the data in the telemetry system?

The government will own the data that it receives from water users. However, this will not prevent water users from accessing and using their data for their own purposes.

Can I access my data via the telemetry system?

Yes, you will be able to access your own data through a private online dashboard. You will also receive notifications when your telemetry device is not transmitting data.

What if I need my telemetry data more frequently?

Water users should discuss their telemetry requirements with a DQP, they can advise the various options on the frequency of data transmission.

Does the multiple pumps or multiple bores threshold apply to telemetry?

No, the multiple threshold does not apply to telemetry, it only applies to the requirement to have a meter.

What do I do if my LID stops working?

A LID is part of your metering equipment. If your LID stops working, or is not working properly, you must report this to WaterNSW within 24 hours of becoming aware, using their online [Section 91I form](#).

My DQP has advised me that my current meter can't connect to a compatible LID, what should I do?

If your work is required to have a meter, then you should talk to your DQP about options to make the current meter compatible with a compatible LID.

If your meter cannot connect to a LID then you will need to replace the meter.

If I am a customer of irrigation corporation/scheme do I have to comply with the telemetry requirements?

No. Telemetry requirements apply to irrigation corporations at the intakes and offtakes, but not to the individual customers within the corporation's area of operations.

I don't have fixed or permanent pumping equipment. Do I still need to comply with the telemetry requirements?

Yes, portable works are subject to the same standards as fixed or permanent works.

W: www.industry.nsw.gov.au/water/metering

T: 02 9338 6600

E: water.relations@dpi.nsw.gov.au

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