

Insights from 5 years on the beat

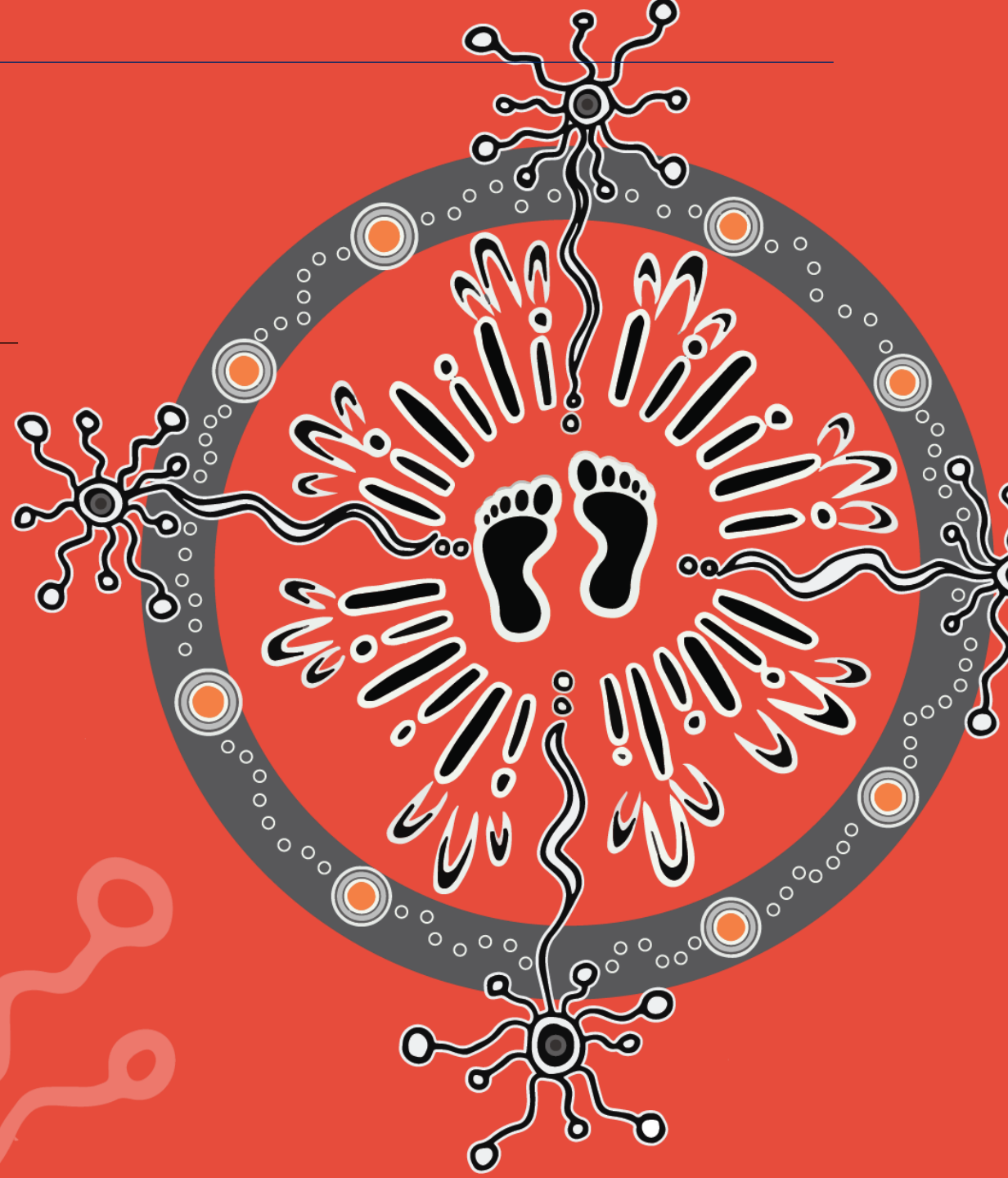
28 September 2023



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Acknowledgement of Country



What we'll cover today...



The early days of NRAR

Shifting compliance and attitudes

Enabling compliance

History of the independent water regulator

NRAR, an independent regulator emerges

1. Media investigation



2017: Allegations of widespread non-compliance with NSW water legislation aired on ABC TV's Four Corners program in an episode called "Pumped", prompting a formal investigation.

2. Independent investigation



In response, NSW Government appointed Mr Ken Matthews AO to conduct an independent investigation into the issues raised in the program.

3. NRAR emerges



Within 8 months of the Ken Matthews Report being released the NRAR Act was legislated and NRAR's board and executive were stood up.

Agency roles – who's who?

DPE WATER

Makes the rules:

- about water management in NSW
- undertakes licensing of select larger entities.

WATERNSW


Implements the rules:

- and issues and administers most water licences and approvals.

NRAR

Enforces the rules:

- through its investigations and education
- and focuses on annual priority programs.



Approvals and licences

What is NRAR?

Independent water regulator - NSW



In NSW we monitor, audit and regulate water take across:

> **800,000**

sq. km of land

> **38,000** water

access licences

> **156,000** licenced works

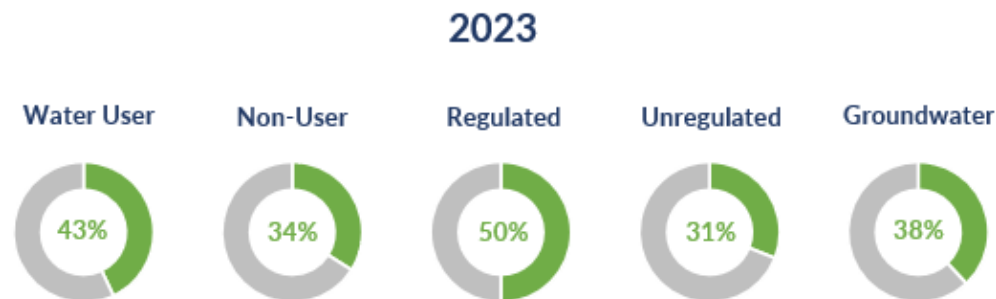
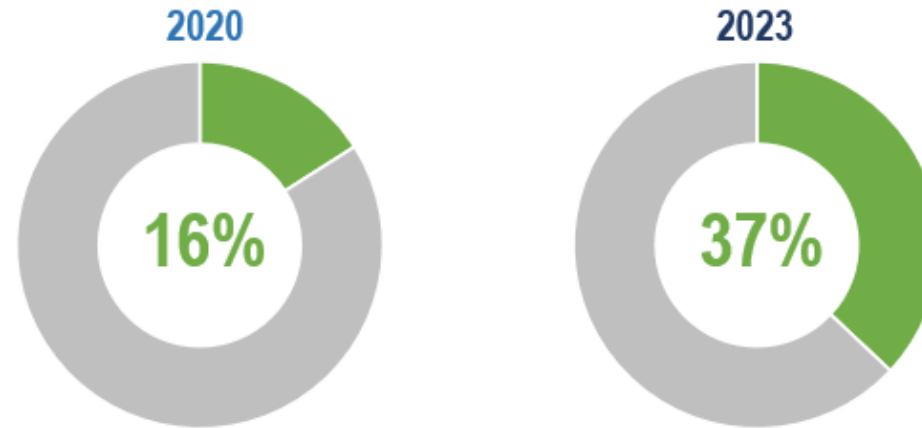
We are a small but effective risk-based regulator – we use a combination of technology, smart data and regulatory experience to monitor a vast terrain.

Staff	196
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Offices	21
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Total site inspections	>5000+
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Present day: awareness of the presence of a water regulator is on the increase



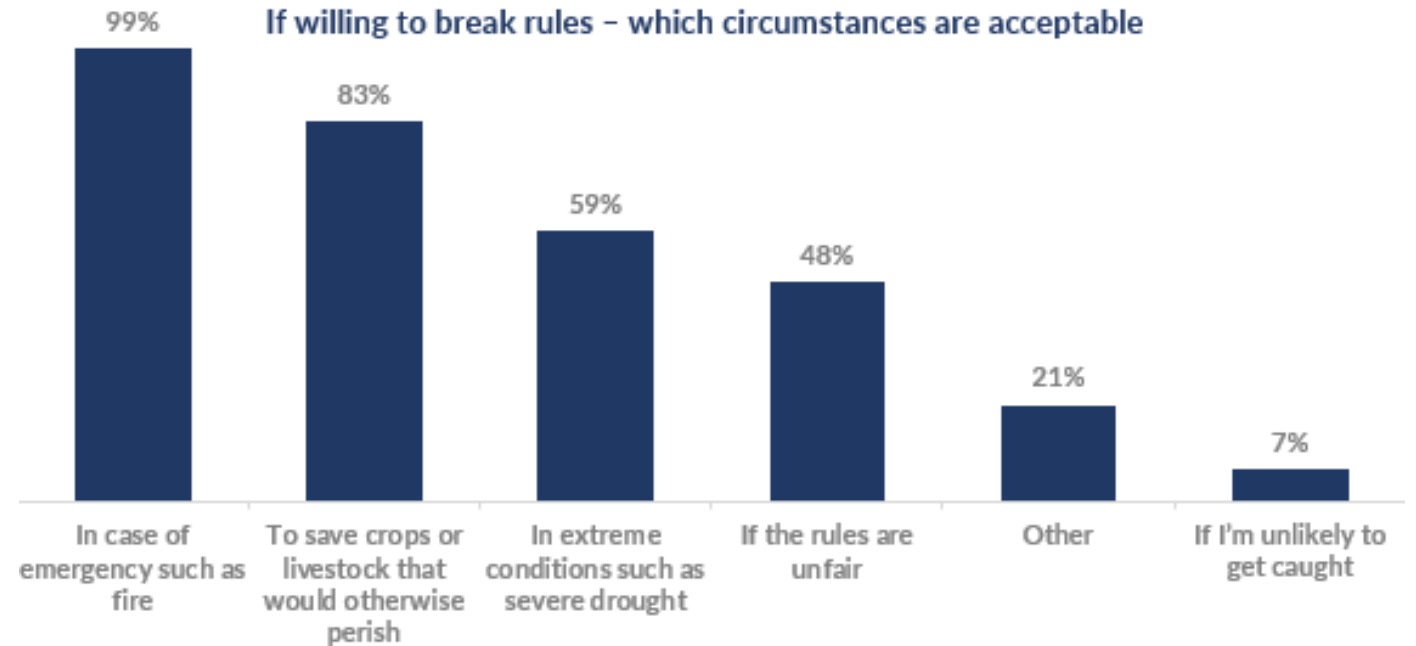
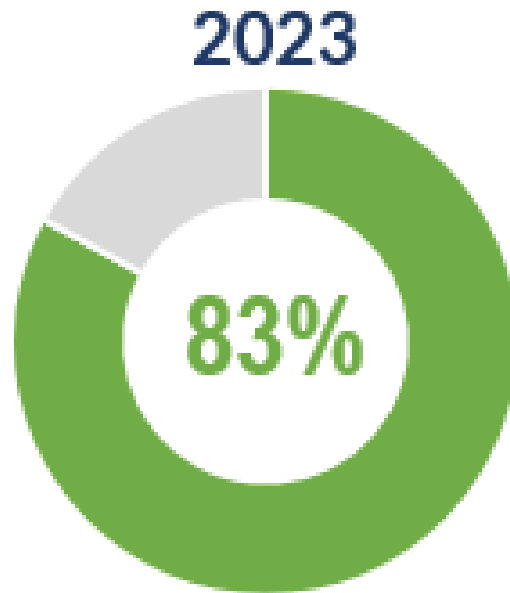
Combined NSW Water Sector Survey 2023

Present day: and we've observed a shifting culture of compliance

> 72.9% compliance rate
based on field inspections



Licence holders who believe it is 'never okay' to break the rules



Combined NSW Water Sector Survey 2023

3 ways we enable a culture of compliance

World-class detection methods



We use a range of technologies to monitor and assess compliance with water laws across vast areas of NSW.

Our use of technology makes water theft and other illegal activities much easier to detect.

Clear consequences for rule breakers



We approach investigations on a case-by-case basis. We consider the harm, culpability, history and attitude.

We continue to take action against water users who undertake unlawful activities, which cause significant harm to other water users, communities or the environment.

Education and engagement



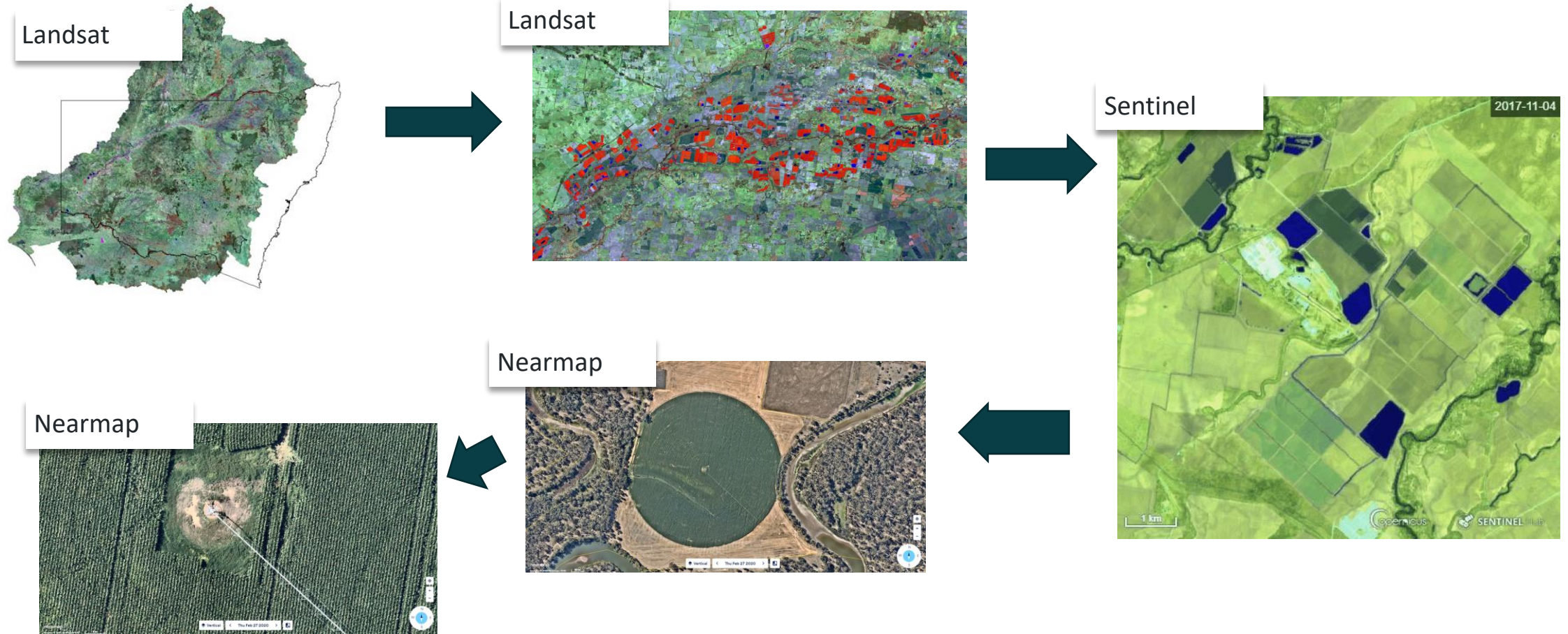
We will continue to raise awareness, engage and educate water users and communities about water laws so that it is easier to comply.

We will help create long-term behaviour change.

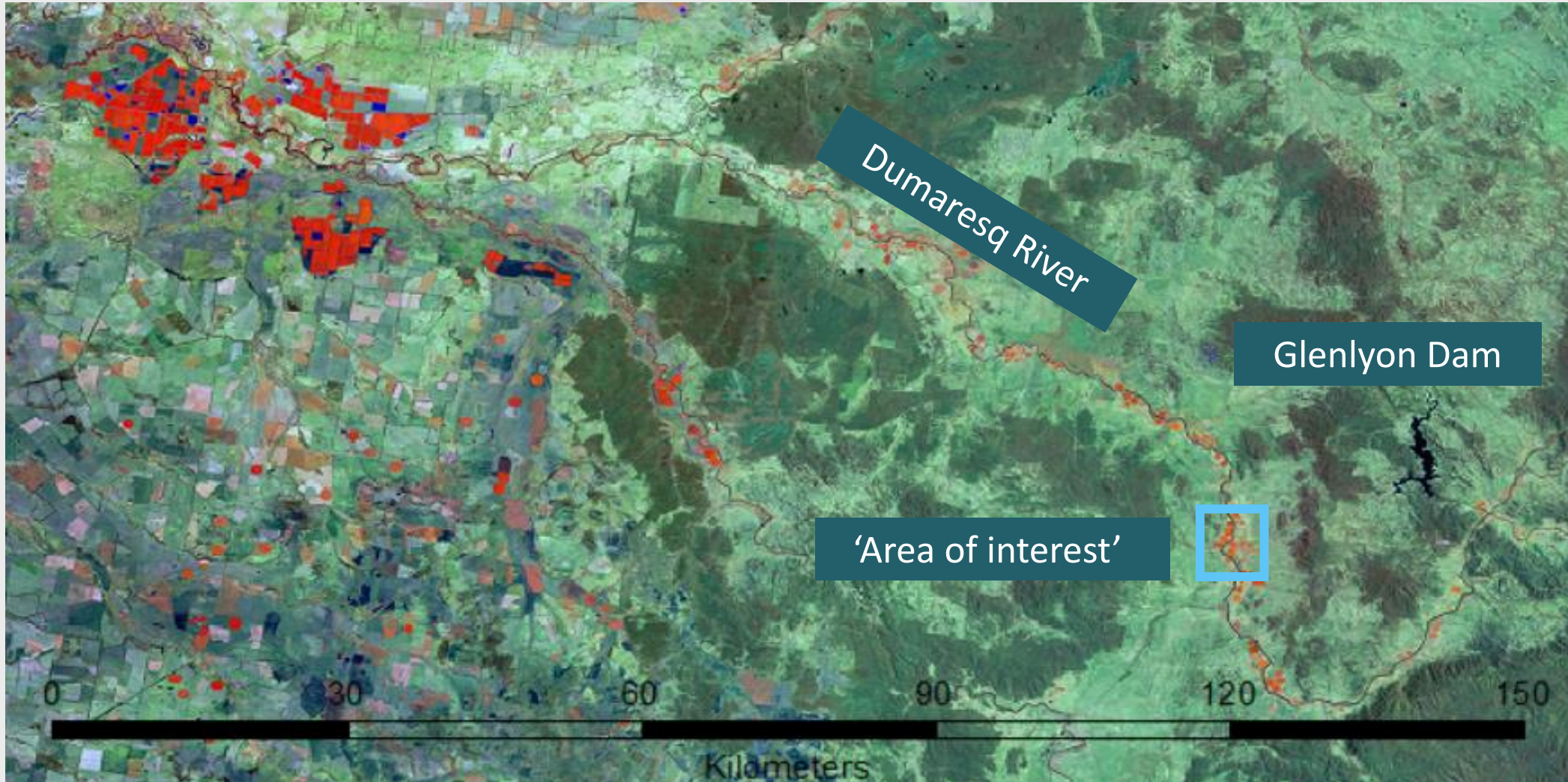
World class detection methods

Satellite imagery, drones, smart data and other tools

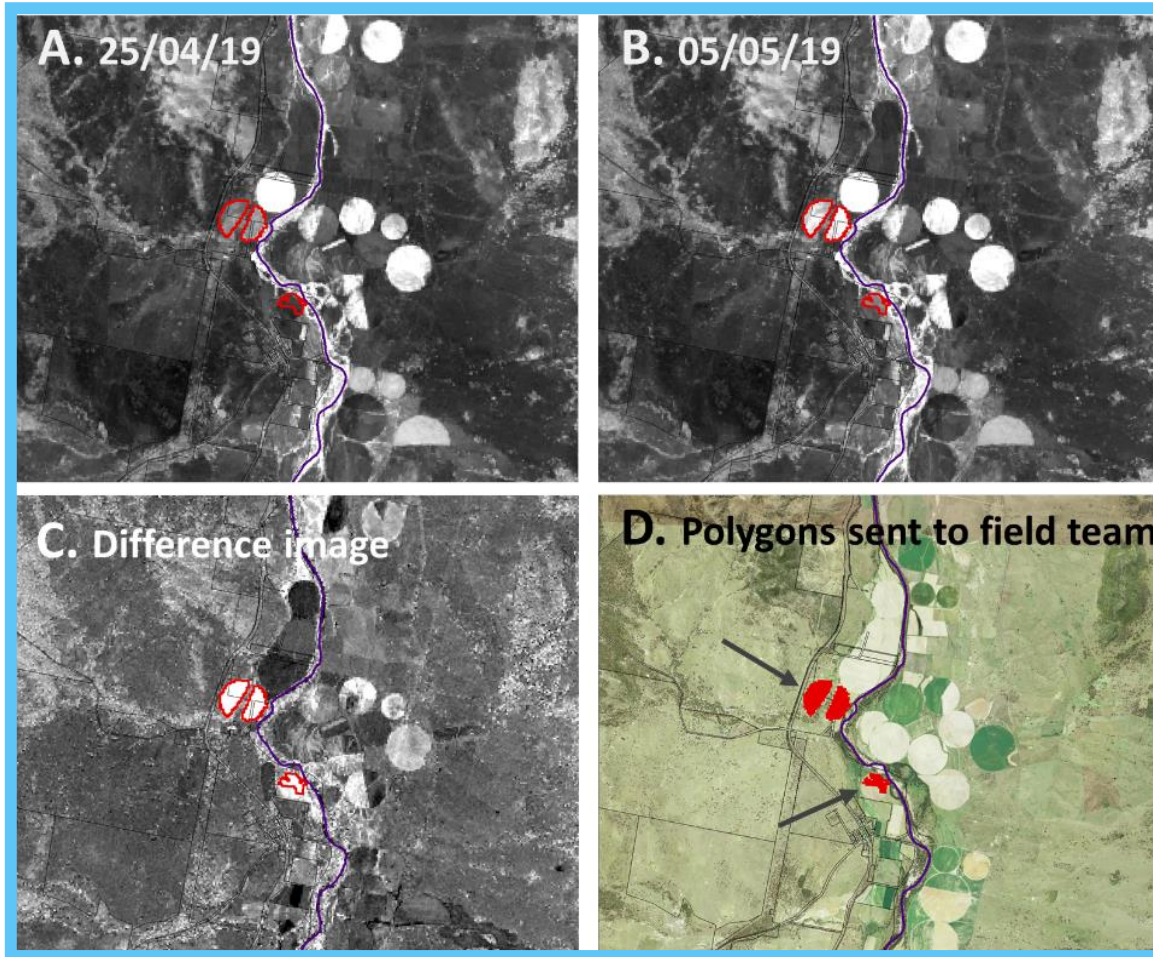
We draw on a range of satellite imagery and aerial photography



Case study: detecting unlawful water take applied directly to crops



Case study: detecting unlawful water take applied directly to crops: 'area of interest'



- Tested 'image differencing' to detect direct watering of crops.
- Identified three areas of interest for in-field checks.
- Successfully targeted both dam filling and direct crop water application sites.



Drones

We use drones to gain a better overall understanding of a site when on an inspection. Drones provide real-time high-resolution images on the spot, and unlike satellite images which are always top down, drone footage can show side views.

Drones can be flown down the centre of a river to assess illegal works on waterfront land, as well as find pumps, bores and pipes in hard-to-access locations.

Natural Resources Access Regulator

Monitoring on the ground

Castable depth sounder



Quick depth checks, transects or full profiles

Low cost, easy to use

Portable flow meter



Straps onto most pipe types and sizes

Check calibration of in-situ meters

Autonomous boat



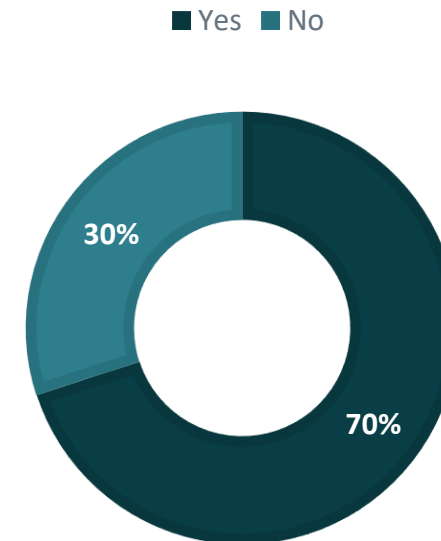
State-of-the-art

Accurately calculate volume in storage and measure flow in open channels

Promoting our detection techniques is helping to change behaviours

- We have strong support for our use of technologies.
- Almost 70% of industry representatives we surveyed this year believed potential offenders had changed their behaviour because of our use of remote monitoring technologies.

DO THESE TECHNOLOGIES DETER OFFENDERS?

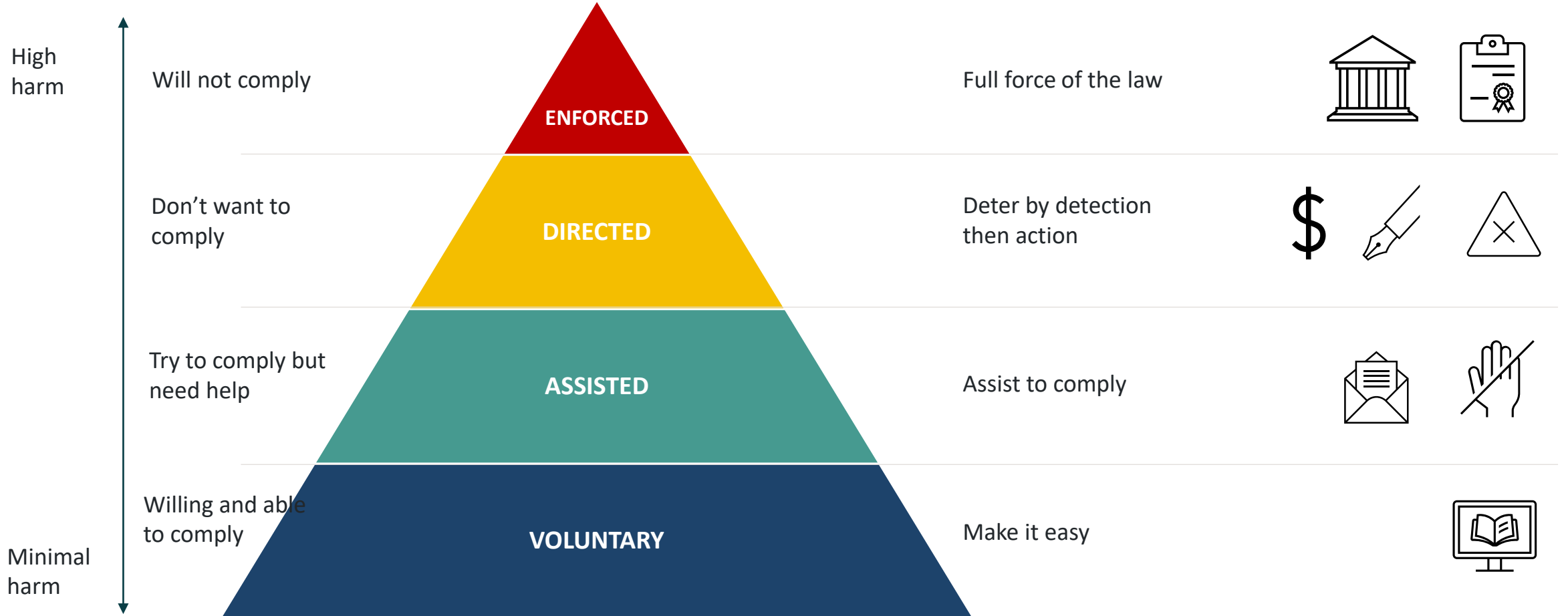


NRAR survey of industry representatives July 2023

Clear consequences for rule breakers

We are a risk-based regulator

Impact / Attitude



Actions at the top of the pyramid support actions at the bottom by clarifying expectations and demonstrating that those who don't comply will be held to account.

General & specific deterrence – clear consequences for rule breakers



Prosecutions

38

Enforceable undertakings

Resulting in more than \$3.1M in combined undertakings

10

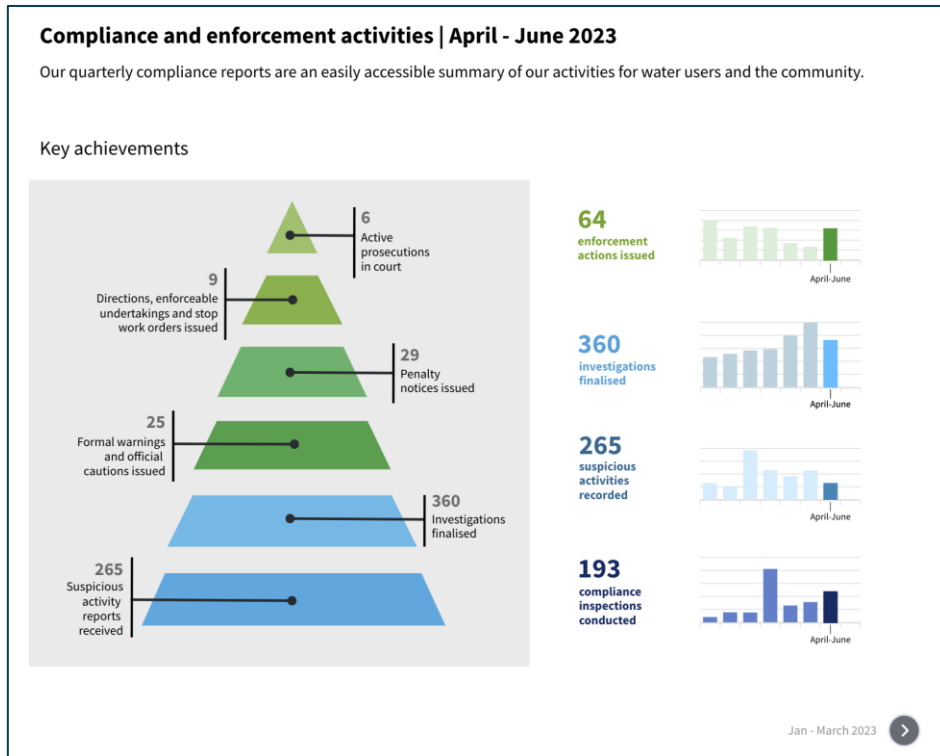
Enforcement actions

Including stop work orders, directions, formal warnings and fines

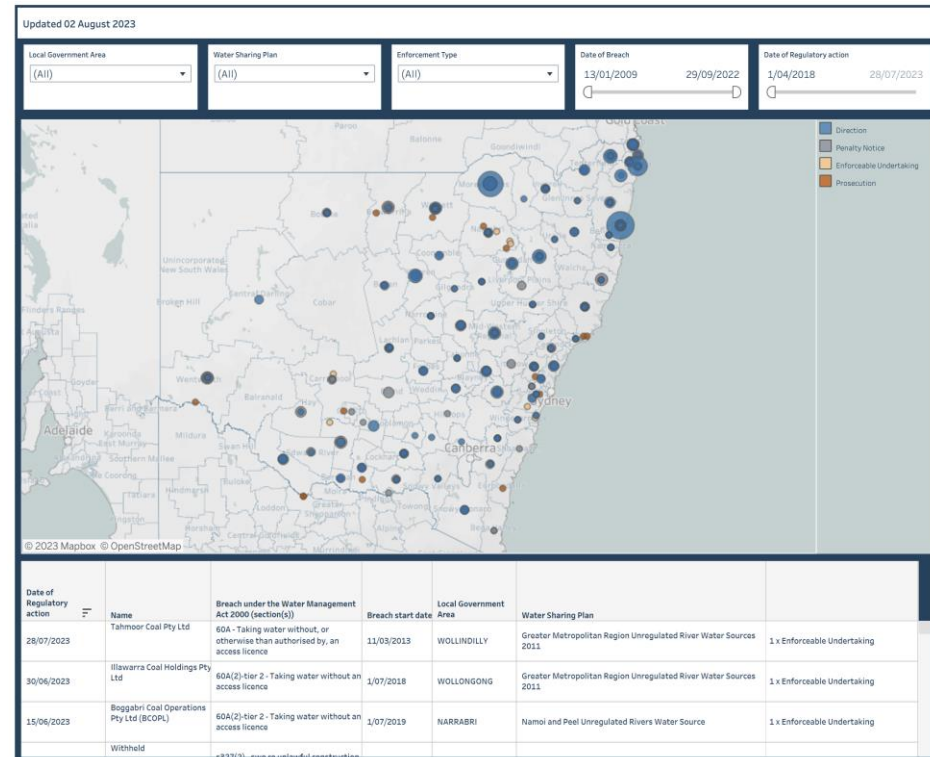
1700+

Transparent reporting

Quarterly compliance reports



Public register



Education and engagement

Most water users need a little help to comply



Natural Resources Access Regulator (NRAR) compliance officers and staff visit Tamworth and Moree

Advice on water laws through visits



Water regulator checking water law compliance

Water regulator here checking compliance

We've developed a suite of helpful resources and tools



Natural Resources Access Regulator

Metering regulations

NRAR's compliance approach

Fact sheet - updated April 2022 (March 2020)

The Natural Resources Access Regulator (NRAR) is an independent regulator established under the NSW Natural Resources Access Regulator Act 2017.

One of NRAR's regulatory priorities is ensuring compliance with the water metering rules and we do so in accordance with our [regulatory policy](#).

Accurate measurement can provide greater certainty about on-farm water balances, helping to optimise water use and make more informed decisions. Installing accurate meters and telemetry can help to reduce water waste, save money and improve yields.

We will consider each case on its merits but expect all water users to have made a reasonable effort to comply before their deadline.

The metering rules

The metering rules are being rolled out in stages by the NSW Government to better measure water take in NSW, make water use fairer and to build community confidence in water management.

These rules apply to water supply works, such as pumps, that can be measured with an accurate meter and are licensed to take water from rivers and groundwater systems. Visit the [Murray Darling Basin Authority](#) website to access a list of approved meters.

Do you need to comply?

Use the department's [online metering guidance tool](#) to check the rules and find a certified meter installer on the [Irrigation Australia website](#).

Complying with the rules

Under the metering rules, most water works including medium and large-sized pumps and bores, must be fitted with accurate meters that have been independently validated by a certified meter installer (also referred to as a DQP).

These meters must be fitted with an intelligence device and some also require telemetry to enable data about water taken through the work to be shared with a centralised database (often referred to as the DAS).

It is the water user's responsibility to engage a certified meter installer to install and/or validate their metering equipment.

Alternative pathways to compliance

We know that well-intentioned water users may miss their metering deadline due to unforeseen circumstances.

We are a firm but fair regulator and will consider each case on its merit. We recognise a handful of alternative pathways to compliance, including:

- Inactive works** – water users who no longer use their pumps, but might want to in the future, need to apply to make their pump inactive using the form on the [WaterNSW website](#).
- Keeping an existing meter** – a manufacturer certificate (up to 5 years old) is required to keep an existing meter that was installed before 1 April 2019 and isn't on the approved list. Alternatively, a meter installer can field test each meter and verify its accuracy. In both cases, a meter installer is required to validate the installation and fit the meter with an intelligence device and tamper evident seals.

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NSW Water Regulation

START MODULE

- Acknowledgement of Country
- Who is NRAR?
- What NRAR does
- How NSW water resources are managed
- References and copyright

Do I need a licence or approval to take water?

What are the conditions of my water access licence or approval?

Do I need to install a meter?

Our friendly NRAR officers can answer all your questions at AgQuip Field Days, site F/07a

Water is for everyone. Know the rules.

Natural Resources Access Regulator
nrar.nsw.gov.au | nrar.enquiries@nrar.nsw.gov.au | 1800 633 362

Do you know the water rules?

Scan the QR code on the back for a range of handy tools and resources.

Natural Resources Access Regulator

We ensure water is used lawfully and everyone gets a fair share

To find out more about how we regulate to achieve compliance with water laws visit our website [nrar.nsw.gov.au/nrar](#)
To report suspicious activities contact us at: [1800 633 362](#) or [nrar.enquiries@nrar.nsw.gov.au](#)

We've learned direct contact with our staff improves perceptions and sentiment



Working together for future water security



NRAR has a dual relationship with councils as water user and co-regulator



- **Licence and approval holders as local water utilities**

Conditions of special purpose access licences and multiple water supply works

- **Planning, Env Health, Rangers**

Eyes and ears on the ground, community knowledge, first point of call



Want to know more?

Sign up to our newsletter



Website: nrar.nsw.gov.au

Phone: 1800 633 362

Email: nrar.enquiries@nrar.nsw.gov.au



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Questions