

Metering and regulatory compliance: Lessons from NSW water users

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sustaining a vital water resource



Water and compliance:

- Australia is facing a crisis of sustainable water management, especially with climate change.
- Key national and state policy developments: ‘top down’ approach, caps and markets.
- Regulatory compliance and enforcement has received little attention.
- State agencies struggling with limited resources to implement effective compliance.

New South Wales response:

- NSW Office of Water (NOW).
- Responsible for regulation of water extraction (surface and groundwater).
- 20 compliance officers ‘on the ground’, devolved meter reading.
- Transitioning from voluntarism to more robust enforcement – a work in progress.

Role of metering:

- Arguably a crucial evolutionary step in Australian water management and regulation.
- However, it is only recently that attempts have been made to advance non-urban metering.
- National Framework for Non Urban Water Metering.
- Reforms pose implementation challenges, not least fostering ‘buy-in’ from water extractors.

Murray Darling Basin

Murray-Darling Basin Boundary — Water Act 2007

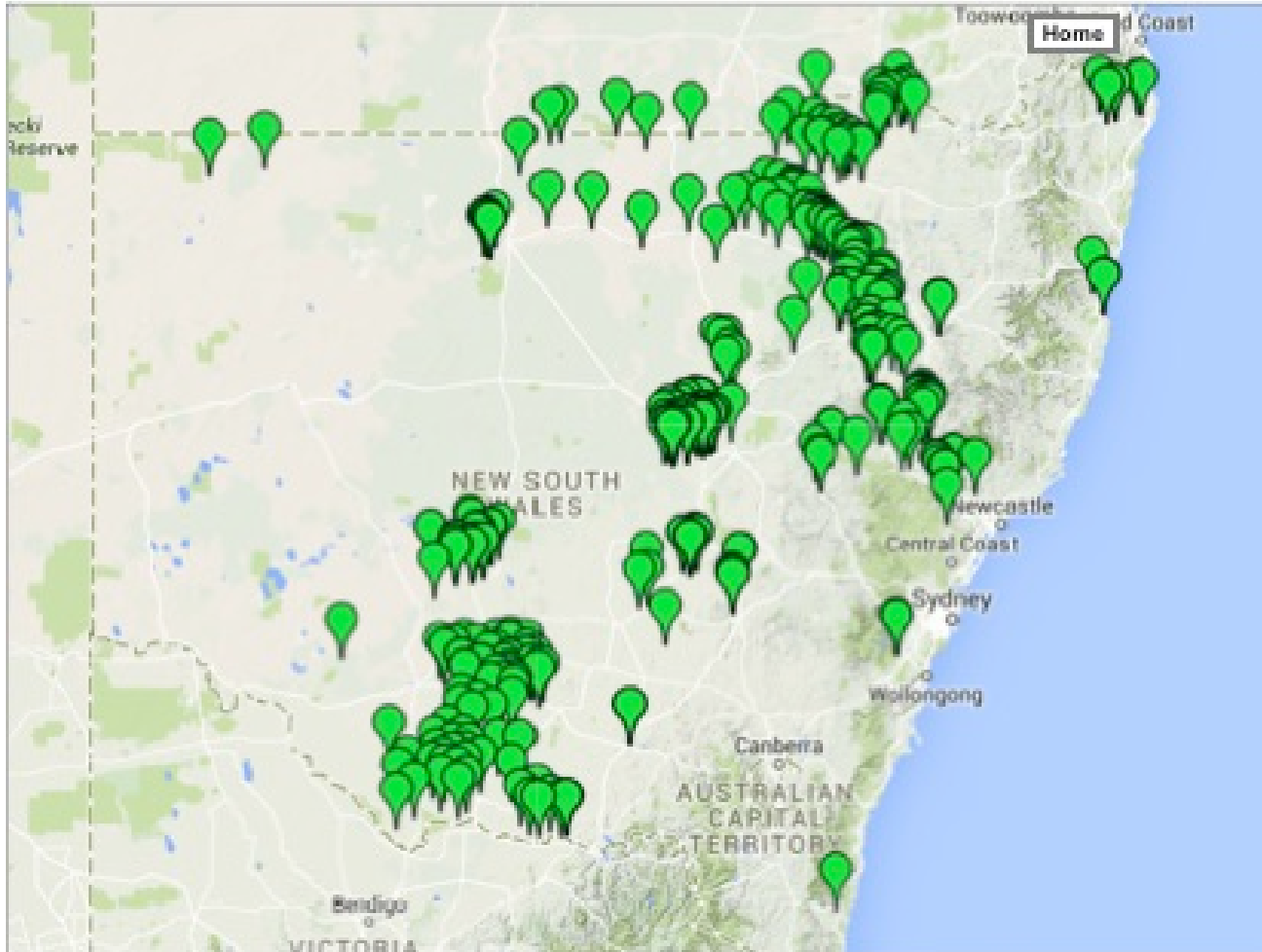


Sustaining a vital water

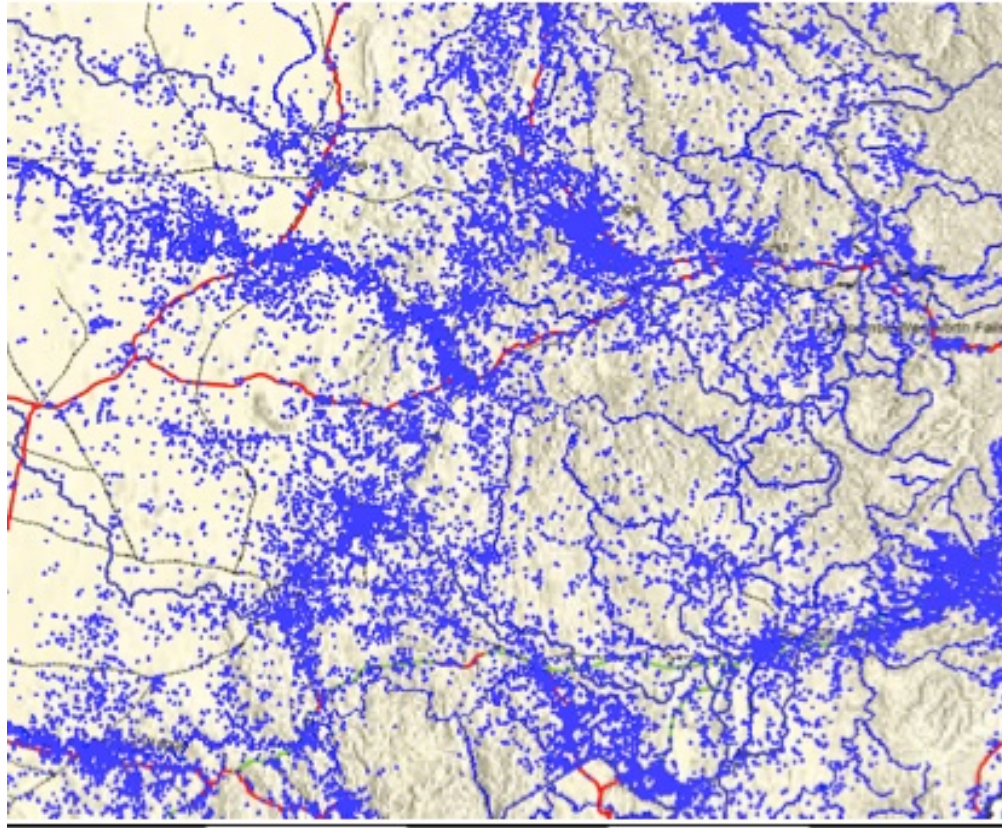
Metering in New South Wales:

- Only 65% of rural water extractions in the NSW Murray Darling Basin are metered, mostly surface water (and no stock and domestic).
- A majority of existing meters do not meet the proposed National standard.
- Meter reading errors of +20% to -30%.
- Variable installations / multiple extraction sites.
- Limited telemetry (except in irrigation schemes).
- Meters read by State Water readers.

Government monitoring



Groundwater extractions



Recent developments/challenges:

- Pilot metering project under the Sustaining the Basin initiative.
- NSW Interim Water Meter Standards.

However:

- Practical hurdles for meter upgrades, as unproven tech. used in different locations/circumstances.
- Strong opposition from many industry groups.
- Limited telemetry – missed opportunity to transform compliance and enforcement.

‘Buy-in’ is crucial to success:

1. Political opposition risks undermining the roll-out of metering reforms.
2. Water users who are unreceptive to new or upgraded meters pose a risk to ongoing meter maintenance.
3. Accurate metering with real-time data access (through telemetry) has the potential to enhance on-property water management and efficiency.

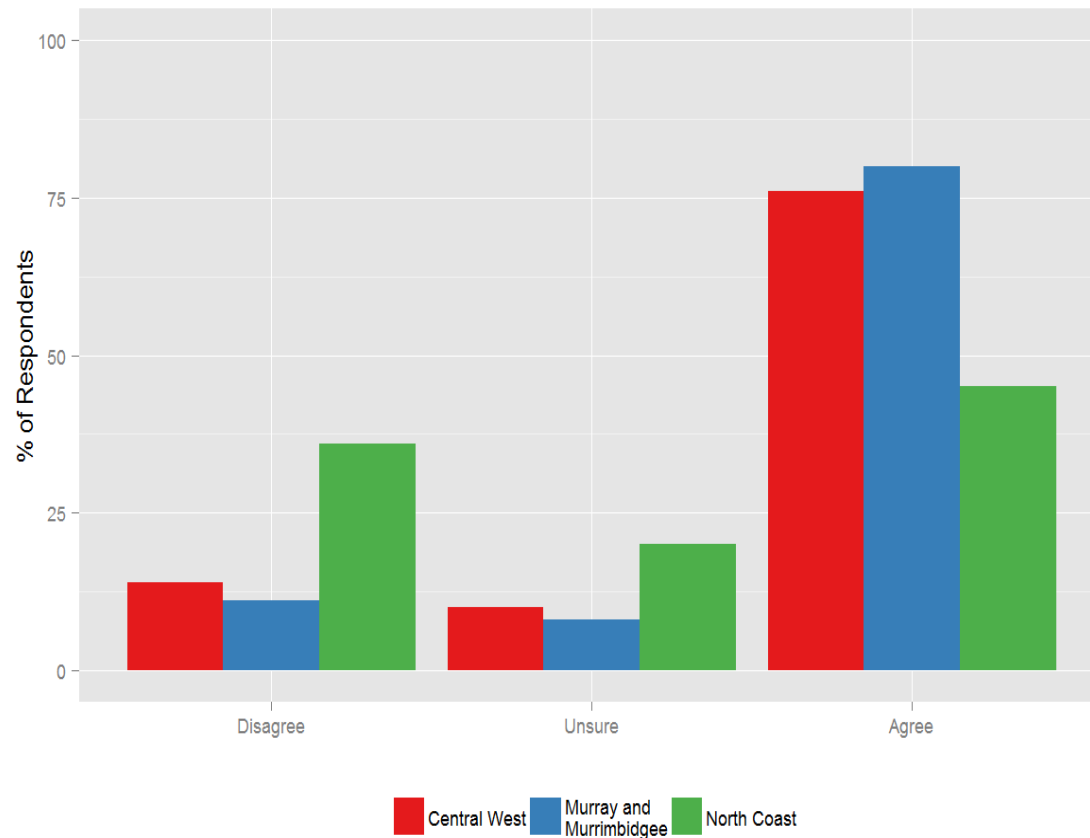
Research question/method:

- What is the level of support (or ‘buy-in’) from water users regarding the implementation of metering and/or metering upgrades?
- Draw on data from a recent survey and interviews:
 - 4500 water users surveyed (22% response rate).
 - 48 water users interviewed face-to-face.

Findings – survey:

- Overall, general support for metering of water extractions.
- Majority had a positive attitude towards the value and benefits of metering.
- Agreement that accurate measurement is necessary to sustainably manage water (66%).
- Support varied across – support was higher in regions with more meter use and greater water use.

Metering is necessary for sustainable management n=608



Findings – interviews:

- Consistent with survey – widespread in-principle support:
 - Better compliance and better on-farm management.
 - Also revealed differences between regions, and origins of these differences.
- Irrigation regions – natural progression of recent technological improvements.
- *“They have put in a new meter and are trialling a system where they can access the meters for remote reading and adjust the channel stops. I think this is a good idea.”*

I support metering, but

- Uncertainty about metering reforms/standards.
- Who pays for the costs of metering?
- Small users may be compromised.
- Limited user-pays reduces new metering benefits.
- Difficulties in locating meters.
- Mistrust of government's proposed water savings.

Discussion – benefits:

- For the regulator, metering has the potential to improve compliance by providing reliable extraction data, where none may have existed:
 - And the addition of remote data access via telemetry is potentially transformative.
- For water users, meters and telemetry may assist on-property water management and avoid unintended compliance breaches:
 - And it will enhance equitable water use by reducing theft.

Discussion – consensus:

- Common ground between regulator and water users on positive role metering can play.
- Support for telemetry, so long as water users (not just government) have access to real-time data to improve on-property water management.
- Responses suggest scope for metering reforms to proceed with the support of water user community.

Discussion – challenges:

- Water users who already have meters may not support government owned or mandated meters.
- Many water users fear they will bear the costs (either up front or overtime).
- Some water users are suspicious that government meters will reduce allocations or increase prices.
- Many water users are uncertain about the meter standards and accommodating local conditions.

Conclusion – improving ‘buy-in’:

- Providing greater clarity on meter standards.
- Explaining how government will pay for meters.
- Explaining the benefits of meters to water users.
- Explaining overall policy goals and strategy.
- Accommodating regional variation.
- Addressing meter location.
- Prioritising telemetry.
- Exploring the use of pricing incentives.