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Are you an individual or representing an organisation?	Organisation
Organisation or Business Details	
Name of Organisation	Wentworth Group of Concerned Scientists
Who are you representing?	Environmental group
Proposed changes to recording and reporting requirements	
The draft public exhibition regulation includes proposed changes to the recording and reporting mandatory conditions. Do you have any comments on the recording and reporting requirements?	Yes
If yes, please include your comment below and indicate whether it relates to works	B. required to have a meter and data logger but not telemetry - new mandatory condition clause 244A of the regulations
Please provide your comments on the proposed recording and reporting requirements	see attached
Draft public exhibition regulation	
Do you have any other comments on the draft public exhibition regulation?	Yes
If yes, please provide your comments.	see attached
Thank you for your submission	
If you would like to provide any additional information or	

supporting documents to help us understand your view please upload them here or email water.reform@industry.nsw.gov.au from the same email you provided above.

[File 1https://drive.google.com/open?id=16-n0M0CTUQZTRk5n7U2A0-NuJ5IyaP-d](https://drive.google.com/open?id=16-n0M0CTUQZTRk5n7U2A0-NuJ5IyaP-d)

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WENTWORTH GROUP OF CONCERNED SCIENTISTS

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Submission to the NSW Water Reform Action Plan on proposed amendments to the metering regulation

August 2019

The Wentworth Group of Concerned Scientists welcomes the opportunity to review and provide feedback on the draft Water Management Amendment (Metering) Regulation 2019 under the Water Management Act 2000. This amendment seeks to implement aspects of the NSW Water Metering Framework which is being reformed as a result of the Ken Mathews review.

The framework and proposed amendment appears fit-for-purpose and we commend the direction NSW Government has taken to improve metering. The aspirational goal to have 95% of all licenced flow capacity accurately metered encompassing 60% of meters across the state by 2023 is admirable. In addition the widespread use of data loggers, telemetry and tamper-evident seals will improve transparency of water consumption and help improve trust in water use systems.

Table 1: NSW framework as proposed for surface water works

	No meter required	Meter required	
		Data loggers no telemetry	Data loggers with telemetry
Pump diameter	Pump < 100 mm	100 ≤ pump < 200 mm	Pump ≥ 200mm
Record data	24 hours	15 minutes – 24 hours	
Report online	3 months (manually upload from logbook)	Yearly (break seal & manually upload)	15 minutes – 24 hours

However, Wentworth Group has concerns about two aspects of the proposed policy:

- First, while data loggers attached to pumps between 100 and 200 mm require the capability to send telemetered data, they don't actually have to turn on this telemetry function. The current proposal is for the water user to physically break the tamper-proof seal once annually and manually upload a year's worth of water use data. **The amendment should be strengthened to require the use of telemetry functionality for all pump diameters ≥ 100mm identical to the requirements for pumps ≥ 200mm.**
- Second, it's imperative that groundwater is also subject to the same telemetry requirements. **The amendment should be strengthened to require groundwater pumps ≥ 100mm to have the telemetry function identical to surface water pumps ≥ 200mm.**

The effect of allowing manual reporting on surface water pumps between 100 and 200 mm is that an unknown percentage of consumptive take data will not be available until the end of each calendar year. Pumps of this diameter are capable of extracting vast amounts of water during that one year and without telemetric reporting, accounting for this water can only occur annually. Another risk in annual reporting is that if the data logger becomes defective or stops recording it may take up to a year to discover the issue. Further risks relate to the potential for data manipulation during the manual data upload.

Telemetry goes a long way to improving transparency. It provides more cost-effective compliance and enforcement systems which can respond more rapidly. Having telemetered data will make WaterNSW and NRARs roles much easier and reduce their costs. It will make water use more accountable in a quicker period of time – with sufficient precision for water management and billing purposes, and to allow breaches of compliance to be investigated. Overall telemetry allows for better management of environmental water.

It has been argued that applying telemetry to pumps between 100 and 200 mm diameter would impose an unreasonable cost on these consumptive water users. However this is a temporary cost saving that will likely need reversing during the initial five-year review of the metering policy. The costs of telemetry have decreased over recent years and moving from telemetry capability to active telemetry requires only marginal cost increases. The additional cost of the telemetry system, power supply, installation, network access (including overcoming mobile black spots), and maintenance should be made now to make available near-real time water use data for most consumptive water users and most consumptive water take. The cost and inconvenience of annually breaking tamper seals, removing SD cards and manually uploading data doesn't appear to be beneficial either in terms of effort or cost. If you can afford consumptive water you can afford telemetry. NSW Department of Industry has identified that the cost could be around \$2,000¹ per works.

The metering policy is a positive step for ensuring better environmental outcomes but it could be made more robust through improving telemetry requirements. It is Wentworth Group's position that the amendment should be modified to enforce telemetry on all meters above 100 mm diameter and for groundwater works. At the very least the legislation should specify the timeframe for when these meters will require telemetry. While we largely support this policy we consider that 'no meter, no pump' really means 'no *telemeter*, no pump'.

¹ NSW Department of Industry (2018) Water take measurement and meeting consultation paper, NSW Water Reform Action Plan, Publication 18/161.