Floodplain Harvesting Measurement and Non-Urban Water Metering

Roadshow Consultation Outcomes Report

Client: DPIE Water
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Elton Consulting is now part of the WSP Group.

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Version	3

Contents

1 Introduction

This report has been prepared by Elton Consulting (a WSP company). Elton Consulting was engaged by the NSW Department of Planning, Industry and Environment Water Group (DPIE Water) to independently facilitate a series of roadshow consultation sessions focussed on the implementation of the Floodplain Harvesting Measurement and Non-Urban Water Metering policy and regulations.

DPIE Water instructed Elton Consulting to act as an independent facilitator. The instruction was to ensure:

» The meetings ran fairly

» That participants had full opportunity to ask questions

» Questions were answered to the fullest extent possible

» Clear records of participant feedback were made and documented

» An Outcomes Report was prepared that participants would have access to and be able to comment on.

1.1 Purpose of report

This Outcomes Report is a summary of those roadshow meetings. It includes an analysis conducted by Elton Consulting of the key themes and issues raised. It also includes more detailed summaries of each meeting, the questions asked, and responses provided.

1.2 Roadshow meetings

Five roadshow meetings were held as follows:

» Dubbo – 22 February 2021

» Narrabri – 23 February 2021

» Walgett – 24 February 2021

» Goondiwindi – 10 March 2021

» Moree – 11 March 2021.

The roadshows in each of the five locations were advertised through the department's website, email, social media and regional newspapers.

Participants were required to register through Eventbrite.

Attendance numbers at each of the meetings were recorded as follows:

Location	Attendance
Dubbo	44
Narrabri	56
Walgett	5
Goondiwindi	58
Moree	43

1.3 Roadshow meeting structure and format

Each roadshow meeting followed the same structure:

- Introductions
- Introductory presentation on:
  - Floodplain Harvesting
  - Non-Urban Water Metering
  - Duly Qualified Persons and Telemetry
  - Further Information
- Question and Answer session.
- Questions and Answers were directed towards a panel that included the presenters plus three additional experts. Presenters and panel members included:
- **Presenters**
  - Alastair McKenzie-McHarg, Manager Floodplain Harvesting Measurement, DPIE Water
  - Aaron Walker, Director Special Projects, DPIE Water
  - Gordon Cameron, Senior Project Officer, DPIE Water
  - Annika Lawrence, Project Officer, DPIE Water.
- **Expert Panel members**
  - Daniel Connor, Director, Healthy Floodplain Project, DPIE Water
  - Geoff Cameron, Manager, Healthy Floodplain Licensing, DPIE Water
  - Graeme White, Director of Regional Water Regulation Operations East, NRAR (Dubbo, Narrabri meetings)
  - Margaret Sexton, Director Regulatory Innovation Regulatory Innovation, NRAR (Goondiwindi meeting)
  - George Abood, NRAR (Moree meeting).

2 Key themes and issues

This section of the report provides a summary of the key themes and common issues that were consistently raised across the five roadshow meetings. While each meeting and its participants were unique, a number of common issues emerged across all areas.

Note that this section contains general, common views consistently expressed during the roadshow sessions. It does not capture every view but is an attempt to summarise the most common themes that were heard regularly throughout the roadshow process. The individual meeting summaries (documented in the next section) provide a more thorough reporting of all views heard at each of the roadshow sessions.

2.1 Common Ground

Firstly and briefly, it is important to note that there were some common areas of agreement between the intentions of the FPH and NUW rules and regulations and the water user participants. Generally speaking, most participants agreed that:

- The intention of NSW's metering and measurement policies were understood and generally supported
- Measurement of water take is considered useful and important to ensure public confidence in water management, protect property rights and the integrity of the water market, and support on farm management decisions.
- Timely access to information about water take is an important element of metering and measurement
- The NSW Government's system for receiving data from water users with telemetry needs to be able to protect government and water users from security risks and ensure the accuracy and integrity of data.
- Telemetry is also an important tool for some water users to make on farm management decisions.
- Data utility to assist both reporting/accounting and farm management was paramount.

The sentiment that water users generally agreed with the broad intention of what DPIE Water is trying to do was commonly expressed. Views clearly differed on the process chosen by Government to achieve its desired outcomes and the timeframes provided for its implementation.

2.2 Areas of Concern / Issues Raised

Across the five roadshow meetings, the following are the key, most common areas of concern or disagreement that were identified.

2.2.1 Compliance Timeframes

Timeframes for compliance was the strongest area of concern for most water users. Timeframes were seen as both unreasonable and impractical. Timeframes were seen by most water users as largely impossible to comply with. There was a strong feeling expressed in the roadshow meetings that Government, through the timelines, were forcing water users into non-compliance.

Water users frequently expressed the sentiment that they want to be compliant but felt that the timelines, and what was required to comply with the floodplain harvesting measurement rules by the July 2021 deadline was essentially setting them up for failure.

Obstacles to Compliance

The following were the key impediments to compliance identified by Roadshow participants.

Regulatory Uncertainty

There was a concern that water users were being asked to make investments in measurement equipment in the absence of regulatory certainty about the measurement requirements and entitlements to floodplain harvest.

A number of elements of regulatory uncertainty were identified:

» The legislation that gives legal effect to the Floodplain Harvesting Measurement Policy is still in development

» The amendments to Water Sharing Plans governing access and trading of floodplain harvested water have not commenced

» Works approvals for floodplain harvesting storages and floodplain harvesting access licences have not yet been issued

» The broader regulatory framework for licensing and measuring floodplain harvesting will be subject to the scrutiny of, and potential disallowance by, the NSW Legislative Council.

Complexity of process

The process, as described in the meetings, required water users to engage at least two different groups of qualified people to assist with the certification and installation of equipment required to comply with the FPH regulations. A registered surveyor was required to conduct the initial survey and establish the benchmark survey points. Following this a certified meter installer was required to install the metering equipment. In some cases, the surveyor may have to return to level the installed equipment into the benchmark. Participants raised concerns about the cost and efficiency of this process.

Currently, DPIE Water reports that there are 27 certified storage meter installers in New South Wales but potentially over 1,000 storages that require certification.

Availability of equipment and installers

Water users, installers and suppliers present at the roadshow clearly indicated that timely supply of equipment and availability of suitable installers was a major obstacle. Equipment supply chains are under pressure and installers are encountering delays in accessing equipment.

Water availability

Recent rain across the area has meant that many storages currently have water in them. Water users at the meetings reported that in some cases this situation could last for some months. The presence of water in storages can make it impossible to safely install compliant storage measurement equipment.

Conversely, the absence of water may make it impossible for water users to have non-urban water meters fully validated – a key requirement under the non-urban metering rules.

NRAR's approach to compliance

A key point made by DPIE Water and NRAR officers present at the meetings related to what water users could do to progress towards compliance given the above constraints. NRAR representatives confirmed the importance of compliance and that Government expected compliance by the deadlines. DPIE Water also confirmed that it was not Government's intention to create non-compliance.

Whilst NRAR has no discretion whether someone is compliant or not, it has discretion on what action to take if someone is non-compliant based on individual circumstances.

NRAR representatives spoke to the roadshow meetings about the concept of 'reasonable efforts' and 'best endeavours'. This was explained to water users as a demonstration (with supporting evidence) that water users had made 'reasonable efforts' to comply with the regulations by the required dates. Activities that could be documented and used as proof of 'reasonable efforts' included contacting and booking a DQP, purchase of equipment, validation of metering equipment, etc.

Participants questioned whether this sentiment of 'reasonable efforts' and apparent flexibility would flow through to on-the-ground compliance. Given this concern, participants requested that the conditions and specifics around 'reasonable efforts' be confirmed, documented and available in writing to water users.

Request to modify compliance deadlines

Participants at the meetings questioned, given there is recognition of difficulties in accessing both DQPs and equipment, why the Government does not modify (i.e. delay) the compliance deadlines. Currently deadlines for compliance are:

» For storages greater than or equal to 1000 megalitres and those storages that are used more frequently than one in seven years is 1st July 2021 (numbers approximately 380 storages)

» For storages less than 1000 megalitres and those storages used less frequently than one in seven years is 1st July 2022 (numbers approximately 700 storages).

The followings suggestions were made at roadshow meetings:

» Delay all compliance to the later date of 1st July 2022 (which is when full compliance was required for all storages anyway)

» Keep the 1st July 2021 deadline but including a form of moratorium to enable more time for compliance.

Stress associated with compliance timeframes

Concern about non-compliance was raised as a significant issue. While some water users were defiant, others spoke of anxiety and fear about being potentially non-compliant and the mental health impact this was having on water users and their families.

The ability of farming families to maintain a viable farming livelihood has become a significant and recognised source of stress. Fear of non-compliance, and the repercussions of this, is strongly felt by many and was identified as an additional and a significant impact on mental health.

Participants at the roadshow meetings emphasised that it was not necessarily the regulations that were the cause for concern but the timelines and requirements for compliance.

2.2.2 Utility of Data

The strong sentiment expressed at the roadshow meetings was that access to telemetered data on a 24 hour basis was inadequate to support farm management. Water users identified reporting cycles in the range of between 5 to15 minutes as being practical and useful and the basis for responsive water management.

DPIE Water stressed at the roadshow meetings that the requirements for data uploading and reporting were targeted at minimum requirements that would enable the majority of water users to readily comply. The requirements state that data will be recorded on an hourly basis and uploaded to Government and water users on a 24 hourly basis. Government and water users will be able to access the daily upload at the same time and view exactly the same data.

While it was understood that the regulations included minimum requirements, some water users pointed out that they currently have expensive and reliable metering equipment that reports on a 15 minute basis but with only one communications portal. This would mean that to comply, and not have to purchase a new meter, those farmers would have to use that communications portal for complying telemetry equipment which would effectively reduce their access to farm management data from 15 minute intervals to 24 hours.

DPIE Water responded that while minimum requirements needed to be set, the only thing preventing water users using equipment that was able to transmit and report more frequently was the availability of the technology and equipment. One option discussed at the roadshow meetings was the installation of meters with two communications portals. This would allow water users to meet the regulation requirements by sending data to the DPIE cloud on an hourly basis and accessing 24 hour reports but having another portal that could send data directly to the farmer/farm manager at more frequent intervals.

A common view expressed was that whatever systems are used, data security and integrity were considered paramount to prevent unauthorised access or interference with private water users' data

2.2.3 Recognition of existing meters

Some frustration was expressed by those water users who had purchased and installed water metering equipment relatively recently (during the last three to five years), at some expense, and would now be required to replace this with complying equipment.

In the view of many participants this equipment was accurate and useful for their purposes but was now considered as redundant because of the rules. Some participants reported purchasing equipment after seeking advice from Government to now find that their metering and measuring equipment was non-compliant.

DPIE-Water responded by explaining that there are transitional provisions that allow water users to keep existing metering equipment, even if it doesn't fully meet the new standards, provided it is accurate, fitted with a local intelligence device and tamper evident seals, and signed off by a duly qualified person. DPIE-Water acknowledged that some older models of meters can't be fitted with local intelligence devices, and therefore will need to be replaced. It was also acknowledged that to meet data and security requirements two local intelligence devices may need to be fitted in some cases.

2.2.4 Assistance to be compliant

An issue that was very clear from the roadshow meetings was the complexity of implementation of the FPH and NUW rules. Not only are the rules and guidelines complicated, but each farm situation and their unique water management system is highly individualised, can be very complex and can be very difficult to clearly apply the rules to. Regularly cited examples of this is the common practice where water users are accessing multiple water sources and understanding how to properly reconcile multiple source and multiple storage situations.

Guidance and on-farm support

Participants felt there were more resources devoted to compliance regulation and enforcement as opposed to assistance and support to be compliant. Many on-farm water management situations were complex and water

users were concerned about 'getting it wrong' (either themselves or their farm managers) due to that complexity and then being subject to penalty.

While web-based tools and guidelines were viewed as helpful, it was felt that they were not able to cover the multiple complexities and individual circumstances across the diversity of farm holdings across New South Wales. Participants suggested that additional resources need to be provided to assist farmers on their properties to confirm what they needed to do to comply. The strong view was expressed that a short timeline and a significant burden to comply has not been accompanied by support to assist with compliance.

Direct on-farm advice and guidance was identified as the likely most useful form of support due to water management complexity.

Financial Assistance

In terms of the burden to comply, water users also spoke of the financial impact of compliance. The cost of engaging DQPs and purchasing the necessary metering, measurement and telemetry equipment was viewed by many water users as significant.

While it was clearly explained that the cost of compliance needed to be met by individual water users, the suggestion was made that low interest loans should be made available to assist those farmers who required financial support to comply.

Other suggestions were to confirm whether purchase of equipment could be considered as part of the Farm Innovation Fund and eligible for funding support through that program.

2.2.5 Land holders with smaller storages

One of the concerns raised in workshops was around the disproportionate burden for smaller floodplain harvesters. The rules currently distinguish between users under and above 1,000 megalitres in terms of compliance timing. A number of participants at the workshops were significantly smaller users of floodplain harvested water, with some identifying usage levels of 100 megalitres or less and with their use being infrequent.

As it currently stands the rules do not distinguish between users of 1,000 megalitres and 100 megalitres or less in terms of the process, equipment and expense required for compliance. Smaller floodplain water harvesters commented that the benefits they received from small amounts of floodplain harvested water were not substantial enough to compensate for the costs associated with compliance.

Participants suggested that the rules be crafted to be more nuanced in how smaller users were included and that the disproportionate burden on smaller users be addressed.

2.2.6 Failure to understand and recognise landholder experience and expertise

A broad category of concern that was expressed in various forms was the view that the rules and the requirements for compliance were another demonstration of Government's failure to understand the experience of farmers and to appropriately value farmers' experience. One view expressed was that a better approach to addressing the issues and management of floodplain harvesting would have been to articulate the outcome that Government required and then to enable farmers to develop solutions to achieving those outcomes. This was described as being outcomes focussed rather than prescriptive in approach. This was thought to be particularly relevant in the floodplain harvesting space where water management regimes were so unique, complex and context-specific that any form of 'one size fits all' was seen to be impractical and lead to perverse outcome and a range of unintended consequences.

A further issue raised in the roadshow meetings was the failure of 'key decision makers' to engage directly with water users and to respond appropriately to the issues raised. Participants in the roadshow meetings expressed some appreciation for the agency representatives present at these meetings but felt that greater senior government representation was required. The concern was expressed that although the officers present at the

roadshow meetings were hearing water user issues directly and understood their concerns this was not being effectively heard and recognised through more senior levels and the key decision makers of the relevant agencies.

DPIE-Water responded by explaining that the issues raised during the roadshow meetings would be captured in a 'What we heard' report, which would be publicly released.

2.2.7 Adequacy of DPIE Water's communications and engagement activities and resourcing

Attendees urged DPIE-Water to scale up its communications and engagement activities to ensure that water users affected by the metering and measurement rules were aware of the rules and understood what is needed to comply. Some attendees highlighted the need for DPIE-Water to be significantly resourced to properly perform these activities.

DPIE-Water responded by acknowledging the need for ongoing communications and engagement with water users throughout the rollout of the metering and measurement rules, and the challenges this posed given the sheer number of water users affected by the regional rollout dates for non-urban metering and the diversity of these water users.

3 Roadshow meeting records

This section of the Outcomes Report provides a more detailed summary of the discussion at each of the Roadshow meetings. While not verbatim transcriptions, these meeting records attempt to record the key questions, comments and responses made at each of the five Roadshow meetings.

3.1 Dubbo

Floodplain Harvesting Measurement and Non-Urban Water Metering

Project	Roadshow Consultation Outcomes Report	**Date**	22 February 2021
Agency.	DPIE Water	**Time**	Steve Rossiter steve.rossiter@elton.com.au
Purpose	To brief water users on the process and equipment needed to comply with the regulations To connect water users with equipment suppliers and installers		

The following is a summary of the questions asked and responses provided at the Dubbo roadshow.

FPH/ Non-urban	Question	Response
FPH	LID and open flow channels	There is currently a gap in the technology that is being actively worked on for open flow channels. Updates will be provided on the DPIE website.
FPH	FPH licensing – when it comes into effects	Two key areas Access Licences and Work Approval. For Macquarie Valley for access licences, aim is to have draft rules and technical assessments available in late March. Licenses are linked to the accounting rules so that process with the rules needs to be completed before licences can be issued. Entitlements should be ready for review in early May. Implementation timeframes are on website. Work Approval for water supply – pumps, pipes, etc. There is a standard process for new work sites on approvals. New information will be provided. Will be same assessment process that exists now if you wanted to put a pump in a river, for example. Environmental, fisheries, heritage checks. Works approval application training will be conducted during March and April.
FPH	The over and under the 1000 megalitre threshold and frequency	Greater than 1000 megalitres and used on average more than once in seven years – the compliance deadline is 1 July 2021 Storages less than 1000 megalitres and used less frequently than one in seven years – the compliance deadline is 1 July 2022.

FPH/ Non-urban	Question	Response
FPH/ Non-urban	Given timeframes what if can't get DQP within deadline	Users need to show they have made reasonable efforts to comply by the deadline. This may include booking a DQP, purchasing equipment – need to show proof/evidence of reasonable efforts. Consideration will be given if water present that prohibits equipment installation but there would need to be evidence that this was an ongoing / long duration problem. (GW) DPIE is encouraging people to be actively work towards compliance.
FPH	Confirming that we all need to have had surveys completed, equipment bought and installed by 1 July 2021	All users who have storage to retain floodplain harvested water will be required to have had survey benchmarks completed by 1 July 2021. Storages greater than 1000 megalitres need to be compliant by 1 July 2021. This is about 350-360 users. But in addition to this, storages less than 1000 megalitres that will be used to harvest floodplain water will also need to have survey benchmarks completed by 1 July 2021. There is a list of surveyors on the DPIE website who can assist users with survey benchmarks.
FPH/ Non-urban	Purchased a mechanical meter five years ago at cost of $30,000 – asked Government for advice. Now not compliant	There is no direct financial support or compensation scheme available. Users in this situation can contact DPIE and explain the situation to see if there is any alternative resolution.
FPH	Storage is used for mixed sources – floodplain, surface water, bore water etc.	Other forms of water take will be considered and deducted and this will be included the Accounting Rules.
FPH/ Non-urban	Irrigators' access to data	Data is collected hourly and reported daily (24hrs). - this is a minimum system requirement. Data can viewed by the landholder at the same time intervals as Government. Government does not have access to the data before the landholder. Does not include evaporation and rainfall data at this point. Would want to see proponents/service providers come forward through Market Engagement Policy.
FPH/ Non-urban	CMIs have received different information on frequency of reporting	Data is collected hourly and reported daily (24hrs). - this is a minimum system requirement. Data can viewed by the landholder at the same time intervals as government

FPH/ Non-urban	Question	Response
		Consideration is power budget, memory capacity and upload frequency.
FPH/ Non-urban	Located in blackspot – can only use satellite	There needs to be another solution for blackspots. Satellite is most likely option. This is currently a gap in the market and a solution is being worked on.
FPH/ Non-urban	Option for third parties to access the data	Could be considered through the Market Engagement Policy.
FPH/ Non-urban	How do users know what parts of the kit are compatible?	Field testing and simulations have been occurring to investigate full parts that work well together as a full kit. DPIE will be providing information to DQPs in the form of a matrix to show which equipment is compatible and can be used together.

3.2 Narrabri

Project	Roadshow Consultation Outcomes Report	**Date**	23 February 2021
Agency.	DPIE Water	**Time**	Steve Rossiter steve.rossiter@elton.com.au
Purpose	To brief water users on the process and equipment needed to comply with the regulations To connect water users with equipment suppliers and installers		

The following is a summary of the questions asked and responses provided at the Narrabri roadshow.

FPH/ Non-urban	Question	Response
FPH/ Non-urban	Will users have equal access to data?	Yes. Users will be able to access their own data at the same time as Government and it will be same information.
FPH/ Non-urban	How do we know if and when a device has failed?	Notified through online dashboard. If device doesn't transmit in 24 hours an alarm will be triggered and an email (and possibly text) sent to user. Note that faulty meter provisions will be triggered at this time.
Non-urban	Why is it assumed older meters are not accurate? Can we keep older meters if can prove they are accurate (even as back up)?	If a meter was installed prior to 1 April 2019, it is not considered pattern approved. If you can demonstrate its accuracy and it can be fitted with a Local Intelligence Device (LID) and other requirements of the regulations, then you can use it.
FPH/ Non-urban	What is the length of time from when information leaves the farm, enters the DAS and then when farmer/water user gets access to it? Participant questioned how useful this would be for farm management and identified it as lost opportunity.	Changes in volume are measured on an hourly basis but frequency of upload is daily (once per 24 hours) – minimum frequency. Open to greater frequency of uploads if technology allows but don't want to set this as minimum.
FPH/	Will there be staff on the ground to assist users with assessment, equipment, compliance, etc.	Recognise desire for more tailored advice for some landholders. Suggest email DPIE floodplain harvesting measurement team with specific issues or requests.
FPH	Why do small irrigators have to spend as much as a big irrigator – costs for small water takers are disproportionate?	Issue noted and feedback received. DPIE will consider situation of small irrigators. Participants reaffirmed he would use about 10 megalitres a year of floodplain harvested water but will have to spend same as 1000 megalitre user to comply.
FPH	How do we confirm accuracy of storage measurements if water is in dam?	Storage curves have already been surveyed and are being uploaded and made available to water users in the next few

FPH/ Non-urban	Question	Response
	Participants questioned the accuracy of the storage curve surveys claiming up to 40% inaccuracy.	weeks. DPIE will also provide information on how storage curve data can be updated if necessary.
Non-urban	Why is reporting on a monthly basis? Seen as onerous	Timely access to data is a key component of the policy. Important contributor to community confidence in water reporting. Government preferred a consistent, uniform reporting approach and timing across the State rather than a differential approach. Water NSW is developing resources to assist with compliance. DPIE Water recognises that there are a variety of views on the regularity of reporting.
FPH	How to account for wave action in measurement?	The frequency and quantity of wave action can be factored into measurement. Wave action will be primarily of short duration and can be accounted for in measurement and reporting.
FPH	What happens with storages that receive water from multiple sources?	Other forms of water take will be considered and deducted and this will be included the Accounting Rules. It is a complex issue. Need to take change in volume during flood event and subtract anything that was pumped into that storage from another water source and anything that was pumped out. DPIE Water is working to provide guidance and is interested in water users' views on how to get most accurate measures.
FPH	What if storages aren't empty by the July compliance deadline? Some storages may still have water for up to 12 months	Users need to show they have made reasonable efforts to comply by the deadline. This may include booking a DQP, purchasing equipment – need to show proof/evidence of reasonable efforts. For storages that may be full for another 12 months we will need to take that information back to the policy team to determine an approach.
Non-urban	Many of the submissions made stated that monthly reporting was too onerous and too great an administrative burden? Why is it still a requirement?	Concerns about monthly reporting are acknowledged. It was determined by Government that quarterly reporting does not meet community expectations for reporting regarding transparency and accuracy.
FPH	Is there an anomalies process?	There is not a formal anomalies committee but DPIE Water welcomes hearing from users about specific issues. Encourage people to contact their DQPs in the first instance with specific property details and any potential perverse outcomes. (AW)

FPH/ Non-urban	Question	Response
FPH	What about situation where user doesn't have FPH licence but may have a storage that does occasionally fill with overland flows?	Aware of this issue and that it does affect around 42 landholders across the State. DPIE Water is working on this issue.
FPH	Why is there a requirement to collect and report data outside of a prescribed flood event? We may have 2-3 years between flood events.	Important to have data before and after an event. Some differences between when a flood event commences and when notification occurs. Alternative would require people going on site to turn equipment on and off at the correct times. The idea is to have an automated system that does not require the user to manually operate. This is again aligning with community expectations around water take and its measurement. Regulator wants to know when you are taking and when you are not taking.
FPH	Can you define harvesting period or water take period for those people who are off the river? Are we supposed to notify?	DPIE Water is preparing guidance for what constitutes start and end of the measurement period. Measurement begins when overland flow begins to be collected or impounded in a storage, or when it starts to mix with water taken under another licence. A measurement period ends when overland flow is no longer being collected and impounded by floodplain harvesting works that are identified on the water supply work approval and all buffer zones are empty. DPIE Water working on preparing a Property Management Plan that will be a tool for water users to identify physical trigger points. Aiming for guidelines to be available by 1 July. Tail water exemption is being considered now by Government now (likely timing is March). Is subject to possible disallowance by Upper House.
FPH	The cut off thresholds at 1000 megalitres are very large. Can there be a third cut off for those that use less than 100 megalitres with less regulation and cost?	Acknowledge that we are hearing clearly concerns from smaller water users that the requirements are considered onerous and disproportionate. This feedback will be taken back and discussed. Noted that approximately six participants at the roadshow meeting indicated they would be less than 100 megalitre takers.
FPH	Can it be confirmed that rainfall runoff from your own land will fall under this policy and we will be charged for this?	Currently a landholder will be exempt from requiring a water access licence when taking overland flow from a developed area (irrigated area of land with tailwater return system) when no other overland flow is being taken. When there is broader rainfall happening and a landholder is accepting water from the floodplain proper, whether from localised rainfall or river flood, then exemption won't apply, and everything will be debited against licence.

FPH/ Non-urban	Question	Response
FPH	It has been said that policy has been set but we are still learning about rollout. We have heard from Northern Valleys that the starting account balance will be 100% - this has not been consulted with licence holders. Where has this decision been made?	Policy is clear but does not set guidance for starting AWDs. DPIE Water is consulting on water sharing changes on a valley-by-valley basis. There is a range being considered 1 megalitre per unit share (100%) or 5 megalitres per unit share (500%). This is still being consulted on. Government (departmental decision) has recommended for Northern Rivers to move ahead with a 100% initial AWD. Part of that decision making is a reflection of the need to consider multiple and diverse stakeholder views. Submission views expressed concern about growth of floodplain harvesting which has impacts on environment and downstream users. Participants raised concerns about potential inconsistencies with valley-by-valley process. If there are differences between valleys, Government will justify why those differences are needed. Consultation is ongoing across all the valleys.
FPH	Concern raised about political decisions coming from south regarding how you would model AWD impacts on downstream	Government has tried to balance the various competing views. Analysis will be undertaken on impacts to feed into final decisions.
FPH	If have 1000 ha of irrigated land and neighbour with 50 ha paddock next door. There is a rainfall event that creates run off from neighbour onto your farm – does this constitute a floodplain harvesting event and does it then mean that the 1000 ha irrigated farm is subject to the floodplain harvesting regulations?	Detail will come into measurement guidelines but conceptually if water is coming on to your farm that isn't coming from your irrigated area, that does constitute a measurement period. Detail in guideline will be important and also the Property Management Plan. Works could be split up so that works on one part of property that are likely to capture overland flows do not mean whole property is subject to measurement period. Importance of aligning works with likely sources of overland flow. Participant asked whether this needed to be completed by 1 July 2021. Suggest landholders use the DPIE floodplain harvesting measurement email address to raise specific issues and any potential anomalies and unintended consequences.
FPH/ Non-urban	CMIs have received different information on frequency of reporting	Data is collected hourly and reported daily (24hrs). - this is a minimum system requirement. Data can viewed by the landholder at the same time intervals as government Consideration is power budget, memory capacity and upload frequency.

FPH/ Non-urban	Question	Response
FPH/ Non-urban	Located in blackspot – can only use satellite	There needs to be another solution for blackspots. Satellite is most likely option. This is currently a gap in the market and a solution is being worked on.
FPH/ Non-urban	Option for third parties to access the data	Could be considered through the Market Engagement Policy
FPH/ Non-urban	How do users know what parts of the kit are compatible?	Field testing and simulations have been occurring to investigate full parts that work well together as a full kit. DPIE will be providing information to DQPs in form of matrix to show which equipment is compatible and can be used together.

3.3 Walgett

Project	Roadshow Consultation Outcomes Report	**Date**	24 February 2021
Agency.	DPIE Water	**Time**	Steve Rossiter steve.rossiter@elton.com.au
Purpose	To brief water users on the process and equipment needed to comply with the regulations To connect water users with equipment suppliers and installers		

The following is a summary of the questions asked and responses provided at the Walgett roadshow.

FPH/ Non-urban	Question	Response
FPH	If you don't have a FPH licence are you required to have a meter?	Users will need to comply with the relevant metering requirement for the water source accessed.
FPH	For secondary measurement, can you put a gauge board in?	Yes, a gauge board that has been assessed by a surveyor is adequate for secondary measurement.
FPH	Is there a standard gauge board?	Gauge boards need to be linked to the survey benchmarks and comply with the requirements of the Secondary (backup) Measurement Devices guideline.
FPH/ Non-urban	Who is responsible for maintenance on the equipment? What about upgrades?	Meters are owned by the water user and the user is responsible for upkeep and maintenance. The rules and requirements have taken upgrades into consideration and it is not envisioned that any significant upgrades will be required for some time in order to maintain compliance.
FPH/ Non-urban	Why are the users bearing all the costs? This is a Government initiative, why isn't the Government paying for meters?	Government has had to make a decision on who will own the meters. It has been determined that private ownership of the meters enables greater choice and fitness for purpose.
FPH/ Non-urban	Why couldn't costs for equipment be included in licence fees – this means that the costs can be spread over time?	There may be an opportunity for different business models but at the moment the position is that landholders will own the equipment and be responsible for capital and operational costs.
FPH/ Non-urban	Could there be an opportunity for low interest loans to assist with equipment purchase for compliance?	This is an option that can be reported back for consideration.
FPH/Non-urban	Can farmers service their own equipment?	Yes. Water users can become qualified through Irrigation Australia to service their own equipment.

FPH/ Non-urban	Question	Response
		It was noted by one participant that is appeared to be an inconsistency with how data security and integrity was managed. Water users can't access real time data but can service their own equipment. The concern was raised that self-servicing may be open to abuse.
FPH	Can existing meters be used as secondary devices?	Existing meters that are compliant with the standards under the NSW Floodplain Harvesting Measurement Policy and guidelines can be used as secondary devices.
FPH	Who determines and how when a nomination period begins and ends for an event?	The measurement period begins when overland flow starts to fill a storage or when overland flow begins to mix with other water on the property. The measurement period ends with water stops flowing into a storage and all buffer zones and temporary storages are empty. It is the water user's responsibility to nominate the beginning and end of the measurement period. DPIE Water is preparing guidance to assist with this.
Non-urban	There are time limit restrictions on certain types of pumps, how can water users effectively manage compliance if real time data is not available? How can you actually measure how much water has been pumped?	The rules set the minimum requirements, but the Department does not want to prevent real time data access. If the LID is capable of providing real time data and is compliant and certified, it can be used.
FPH/ Non-urban	Water users have to be able to apply the rules practically in real on-farm water management situations which are all different	Acknowledged and recorded as a comment

3.4 Goondiwindi

Project	Roadshow Consultation Outcomes Report	**Date**	10 March 2021
Agency.	DPIE Water	**Time**	Steve Rossiter steve.rossiter@elton.com.au
Purpose	To brief water users on the process and equipment needed to comply with the regulations To connect water users with equipment suppliers and installers		

The following is a summary of the questions asked and responses provided at the Goondiwindi roadshow.

FPH/ Non-urban	Question	Response
Non-urban	If the river operator knows there is no water – why don't they just notify on behalf of all water users rather than requiring each individual water user to notify?	This is a good point. Will be taken back and reported as part of the feedback.
FPH/ Non-urban	Why is there a lack of confidence in satellite technology?	The measurement process uses a range of technology. Satellite good for presence or absence but not at moment most reliable for detailed measures of volume. Three-dimensional satellite is available but is not routine and is expensive. On-site measurement is still seen as the most accurate.
FPH	Why is the deadline July 2021? Unable to source products to install What if we are unable to comply?	Recognise that timeline is tight. The market is still responding. Meters are available but not shipping yet. Constraints with installers being available. Measurement timelines are tied up with broader licensing timing Government is sticking with the July deadline. As a regulator NRAR takes a 'firm but fair' approach. Will require 'best endeavours' to be made to comply. Documented evidence such as having contacted DQP, purchased or ordered equipment etc.
FPH	Why not just set a realistic date?	Noted and feedback will be passed on. It is recognised that the dates are ambitious. DPIE having regular conversations with Minister's Office. At the moment there is no appetite for changing the date.
FPH/ Non-urban	The water licensee pays for the equipment and owns that – but who owns the data? Data has value to the licensee.	Government owns the data, but water users have equal access to it including when the data becomes available. The minimum requirements are that data is recorded every hour and reported/transmitted to DAS every 24 hours. This does not preclude a user purchasing a LID that uploads and reports more frequently as long as user can show it is secure, unable to be tampered with, etc. DPIE is setting base level requirements, if industry wants to offer enhancements it can.

FPH/ Non-urban	Question	Response
FPH/ Non-urban	At the moment our telemetry is set up and all connected so that we can get information every 15 minutes. The frequency of data DPIE is talking about is useless for farm management – it might be OK for accounting purposes, but we need greater frequency of information. To comply with the regulations, we will be forced to remove this system (we only have one port) so that we can fit in the new system that gives us significantly poorer frequency	Recognise the complications. Acknowledge that some meters won't work with two devices. Frequency will depend on how LID is configured. We need to set up system that works for a diversity of users across the State.
FPH/ Non-urban	Should have set system up with a focus on getting the outcome you want – which is getting good quality information into the system. We are all interested in good quality data, but you have prescribed how it is be done in a way that doesn't fit with the reality of our farm operations. You could have told us what you needed, and we could have provided it. Everything on farm has a modem, everything is connected. We have so many systems and now you want us to introduce a new one that gives us a worse output than what we currently have	Challenge for government is that if you are linking your current on farm system into ours, we need to assess that because it can expose government and water users to security risk. We have a process to assess existing meters and equipment. We want to engage with suppliers about this. Want suppliers to demonstrate how their equipment can comply.
FPH	How will you deal with reconciliation – multiple meters, sources, etc.	We had feedback in previous sessions about complicated properties, about how the measurement period applies and how reconciliation works. We are working on developing guidance tools such as a template Property Management Plan that will assist landholders under different property scenarios. There is no doubt that for some properties this will be complex. DPIE Water is now focussing on operational aspects of the regulations. Recognise that water users feel exposed and that the reforms are complicated and there are some real challenges in accounting for this form of water take.
FPH	What happens when the people on the farm get the reconciliation wrong? What is the process then? Anomalies process like for works? E.g. 78mm of storm rain on west side of property, 104mm on north side.	Focus is now on measurement stage and trying to provide enough clarity to minimise risk of getting it wrong. Want to work with stakeholders and 'road test' our approach. We need to work through a number of real-world situations to help stress test this to make sure we get this right.

FPH/ Non-urban	Question	Response
		Flexibility to 'back date' start of event. Can do this within 24 hours.
FPH	We are trying to account for every gallon of water. The accuracy being sought is not possible. Extremely complex.	We want to provide clear guidance to help you comply.
FPH	Pushing the compliance too hard and too fast. Will leave water users exposed. Feel like we could be breached on every rain event. There is not enough knowledge of how it works in practice on a farm.	Not intention to create non-compliance. Can't continue along unregulated path we need to regulate, and we need accurate information.
FPH/ Non-urban	No one has problem with validating data. We have the most up to date systems on our farms. Now we are charging down path of these new meters. We will have to change and update our meters in a few years?	Users are responsible for equipment and costs. DPIE Water view is that there needs to be stability, so we are not entertaining any required changes in the foreseeable future. No appetite to be changing rules.
FPH/ Non-urban	Agree with importance of data security – very important for us	Starting position for telemetry is very basic back to base system.
FPH/ Non-urban	Pumps of 100mm require a meter. Less than 100mm don't. What will be accepted as a measurement?	A DQP could measure using recognised methods and you could apply to have works approval amended.
FPH/ Non-urban	Concern that key decision makers are not present. Senior people in Department and Minister needs to be involved. We have written to Director-General about unrealistic nature of compliance dates and inability of market to meet the requirements. Response was that there is no market impediment. There is lack of communication between what is said here and what is happening on ground and Director-General. Everyone wants to be compliant. Market is doing the best they can. Water users are ones at risk - bearing all the costs and are liable for prosecution.	Recorded as comment. Confirmation that meeting notes will be taken by Elton to record comments 'what we heard'. This will be made available to participants so there is transparency in how your feedback is reported back to decision makers.

FPH/ Non-urban	Question	Response
FPH/ Non-urban	Real time data – if LID has capacity to increase the reading interval to 10 minutes as example, can that system be used. If second telemetry port can we pull the data out.	No LID submitted yet that has this timing interval. Capability is there but none have been submitted to Department for approval. If meter has two comms ports then meter can be used to send data to two different locations – essentially having two LIDs. Can provide data to department to meet minimum requirements and also sent to farm to enable real time management, provided security and integrity of data required by the regulations is not compromised.
FPH/ Non-urban	Better way to go would be for data to be sent to department Cloud and for user to have real time access to it.	Key is how frequently LID is configured to send information. If LID is capable of sending data every 15 minutes, then a water user could access that data at 15 minutes intervals, provided the security and integrity of the data provided to government is not compromised.
FPH/ Non-urban	Question about ownership of Eagle IO – who owns the company?	Engaged through open tender process. Security was a key criteria. Eagle Io is an Australian owned business.
FPH	If you are at your cap for floodplain harvested water and a flood event occurs – what do you do?	Accounting for floodplain harvesting occurs at the end of a measurement period. Some flexibility to move water around. If you can demonstrate you have stopped taking water from outside your property, you can end the measurement period.

3.5 Moree

Project	Roadshow Consultation Outcomes Report	**Date**	11 March 2021
Agency.	DPIE Water	**Time**	Steve Rossiter steve.rossiter@elton.com.au
Purpose	To brief water users on the process and equipment needed to comply with the regulations To connect water users with equipment suppliers and installers		

The following is a summary of the questions asked and responses provided at the Moree roadshow.

FPH/ Non-urban	Question	Response
FPH	Do gauge boards need to be certified?	The gauge board can be installed by any competent person in accordance with the guidelines. A surveyor must certify that the gauge board has been installed in accordance with the relevant requirements and level the gauge board to the storage benchmark. CSV training does not qualify people to self-certify surveying work.
FPH	If you need three survey points established to begin with, then the installer comes in to install the equipment. After that do you have to get your surveyor back in to level-in the device?	A survey is required to be completed before leveling-in equipment. A DQP can coordinate survey benchmarks and equipment installation so another trip is not required.
FPH	What if you can't get your equipment delivered by July 2021?	This will be considered on a case by case basis. Water user needs to show a genuine effort to comply and to have done the things that are within their control. This would include having DQP booked in, have a pattern-approved meter in place or on order, etc. Water users need to show evidence that they have made 'best endeavours' to comply but it is recognised that some things may be out of their control. NRAR will look at actions but also the timing of the action. If water user has taken genuine action some time ago that will be considered differently to action that was taken closer to the compliance deadline. Both action and timing of the action are important.
FPH/ Non-urban	Given amount of automation that is involved in farm management systems, is there an opportunity for dual purpose use? Are there any barriers to utilising equipment and data for other farm management purposes?	System is designed at basic level to maximise opportunity for compliance but also for greater security. Systems may be able to have dual purpose if enhancements can be shown to not compromise security and integrity. Dual communications portals on a meter are possible if that equipment can be supplied and installed. This could allow sending data to different destinations – one to cloud and one on farm. You could have two LIDs. May also have a LID with two modems – but this would need assessment to ensure security, data integrity, tamper proof, etc.
FPH	Will water users only be able to receive data about their farm and water levels on a once a day basis?	Minimum requirements are for recording data hourly and uploading to Cloud for access once every 24 hours. Devices that enable more frequent transmission and upload can be installed and assessed.
FPH/ Non-urban	It is important that users have a good idea of what you need for your farming needs. Some basic systems with limited	Recorded as a comment.

FPH/ Non-urban	Question	Response
	battery capacity won't sustain more advanced functionality.	
FPH	Do temporary storages or surges fall under the same rules for FPH?	Temporary storages, surges, and sacrificial fields are exempt.
FPH	If temporary storage is not metered or monitored can you not end a measurement period until it is empty?	Correct, the measurement period ends when all temporary holding areas are empty.
FPH	When does the measurement period finish?	Measurement period begins when water starts entering your storage or mixes with water already on your property and ends when water is no longer flowing into your storage. 24 hours to back date start and finish of the period.
FPH	How do you reconcile storages with multiple water sources – floodplain, rainfall run off, etc.	Guidance is being prepared by DPIE about reconciliation and measurement periods. Will be looking to provide more tailored advice for a wider range of properties. If rainfall runoff can be separated from overland flow then it can be taken and not debited against FPH licence. This will obviously depend on the nature of the on-farm infrastructure and its configuration. As soon as the sources mix it should be counted and debited. For large properties it is possible to have different zones. This would require subdivision of works approvals. DPIE working through detail of this. May result in capacity to have different measurement periods for different zones on the one property that may better reflect on-ground conditions on farms.
FPH	How do we go through the process of breaking down Works Approvals to properly reconcile?	DPIE is driven by compliance deadline as well. Bigger focus now on providing guidance to water users on these issues to assist with compliance. Will be more engagement and information required.
FPH	How do we know we are not going over our allocation if we get an event that starts within the 24 hour period from our last upload?	24 hour upload is the minimum specification. It is recognised this will not be enough for some users and particularly in flood events. LIDs can be installed that provide more frequent data uploads if that better suits farm needs. This is an important role for equipment providers to play and DPIE is encouraging of this. The measurement period accounting happens at the end of the measurement period. Once the water stops flowing and the temporary storages are empty, that is when measurement occurs. If over you can return water back to the environment when it is safe and practical to do so. Will not be forced to release until it is safe and practical.
FPH	Is there any appetite to introduce a system where you can debit a supplementary account as is the case under other rules?	May be like a journal transfer in an accounting sense. This may be possible and we will take this back for consideration.
FPH	To make sure we are compliant, many of us feel like we need some more tailored advice to suit our own farm set up and management systems. Is this available?	To date the focus has been on installation of equipment, DPIE Water is now looking at operational stage. We are looking at several options.

FPH/ Non-urban	Question	Response
FPH/ Non-urban	There are real concerns about non-compliance. We have heard NRAR speak about 'reasonable efforts' but we want some formal reassurance.	Noted and will be recorded for consideration. NRAR will focus on 'procedural fairness'. Important to keep records to demonstrate 'reasonable efforts'. NRAR will be open about what compliance program is. This will include one on one engagement with water user before we arrive on site. We need to ground truth to ensure integrity of the compliance process.
FPH/ Non-urban	This is not good enough from NRAR. Concern about non-compliance is real. You are missing the human factor. Many of us will not physically be able to comply within the deadlines. We feel like we are being set up for failure, for non-compliance. This is affecting us greatly – the levels of stress and anxiety are very high. We feel like the Department is not listening to us.	Part of NRAR's job as a regulator is to provide that one-on-one engagement with water users to better understand what is happening on the ground. We need to hear those personal stories and understand individual situations.
FPH/ Non-urban	We have proactive irrigators here. We want to comply. With less than four months to go it is still not clear what is required to comply. We need people on the ground to help with compliance. Resources are directed towards policing and enforcement rather than assistance with compliance.	The magnitude of the task is appreciated. We acknowledge that resourcing is an issue. We recognise that we need a way to engage with individual water users, to raise awareness and understanding and to provide more detailed guidance about compliance.
FPH	We have 110 days until we need to be compliant. I would say 70% of this room will not be able to comply within that time. Why not go to the crux of the problem and move the date?	Acknowledge this as a valid view. There are a range of options and changing the dates is one. As it stands though, the dates remain fixed. This will be a decision for Government and DPIE staff continue to report and advise senior officers and the Minister's Office. There is a link between floodplain harvesting measurement and the licensing regime and how the timing of these two things work together.
FPH	Is it possible to keep the timeframe but provide for a moratorium?	That is an option. There are a range of options as to how this is managed. Moratorium, changing dates and redefining what compliance constitutes on the date are all options. A range of options have been considered but as yet the dates remain unchanged.
FPH	We are progressing with this, but Government cannot guarantee us a licence at the moment. We need a commitment that a licence is coming. Worst case scenario is if we get an event and we can't access it.	Those concerns are acknowledged. There are options being considered and that feedback will be presented back to government.
FPH	The timelines are July 2022 for storages under 1000 megalitres. Why not just delay compliance for all storages until then?	Noted as another option for consideration. Options suggested today will be actively considered.
FPH	Can the DQP Portal be used to monitor compliance? Will demonstrate what steps	NRAR and Water NSW can see activity in the DQP Portal and can demonstrate pathway to compliance. At the

FPH/ Non-urban	Question	Response
	water users have taken to become compliant.	moment this is not accessible to the water user themselves but this can be considered in the future.

4 Next Steps

The Department will:

- Consider your feedback in the development of the regulations
- Provide on-going engagement as we work towards compliance dates

The department updates the non-urban water metering and floodplain harvesting measurement webpages frequently. We encourage water users to use these helpful resources to assist in their pathway to compliance:

Floodplain harvesting

https://www.industry.nsw.gov.au/water/plans-programs/healthy-floodplains-project/measurement

Non-urban water metering

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

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