

Submission

Rural Water Management Program

Consultation Paper

December 2019

Cotton Australia welcomes the opportunity to provide feedback on the Rural Water Management Programme (RWMP) discussion paper on *Proposals for strengthening non-urban water measurement* which was released in August 2019.

Cotton Australia is the peak body representing Queensland's cotton producers, who regularly contribute between \$750 million and \$1 billion (farmgate) to the Queensland economy.

Cotton Australia is an active member of the Queensland Farmers' Federation (QFF) and has a close working association with a number of regional irrigator representative bodies. In general, Cotton Australia endorses submissions lodged by these organisations; but should there be inconsistency between these submissions and the one lodged by Cotton Australia, the view of Cotton Australia is the one expressed in this submission.

Executive Summary

- J Cotton Australia is broadly supportive of the content of the *Proposals for strengthening non-urban water measurement* discussion paper.
- J Cotton Australia supports an effective, cost-effective, robust and transparent water metering, measuring, management and compliance system.
- J Cotton Australia's support is contingent on the Queensland Government being prepared to make the required investment in skills, technology and systems that will ensure there is an effective, cost-effective, robust and transparent water metering, measuring, management and compliance regime.
- J It is Cotton Australia's expectation that at the end of this process, the Queensland Government will be able to accurately report in aggregate on water use, total river flows, and the percentage of flows preserved for environment, along with other data that can give all stakeholders confidence in the management of our water resources.
- J Cotton Australia strongly supports efforts to manage the take of Overland Flow in a manner that ensures no growth in use and includes a practical, effective and cost effective measurement and reporting framework; and looks forward to providing input on it at the appropriate time.

- J Cotton Australia is supportive of the Consultation Paper's (and current Queensland Government's) position that the ownership of meters rests with the water entitlement holder.
- J Cotton Australia accepts that there is a competitive market for AS4747 pattern approved meters suitable for installations of 400mm or less. While these meters cannot be considered cheap, they do appear to be affordable, and therefore Cotton Australia does support the application of AS4747 for these installations.
- J Cotton Australia is not opposed to the Queensland Government aspiring to moving to an entirely AS4747 meter fleet over time, but suggests that at this time, a blind adherence to AS4747 would neither be "Effective or Cost-Effective".
- J Cotton Australia is supportive of almost universal telemetry, with a few of very important provisos (detailed in the submission below).
- J Cotton Australia supports the open and transparent reporting of the nation's water resources, in a manner that gives confidence to all stakeholders that no one is taking more than they are entitled to, and that they are taking it at a time they are entitled.
- J Cotton Australia supports aggregate reporting of water use on a water source basis in a timely manner. The exact nature of this would vary from water source to water source, and in part be dependent on how water is shared and extracted in each source.
- J Cotton Australia is completely opposed to an entitlement holders' account balance being made available to anyone but appropriate Departmental officials. External stakeholders have a right to be confident that an entitlement holder has a positive balance, but the extent of that balance is entirely irrelevant, and the knowledge definitely falls into the Commercial-In-Confidence category.
- J Cotton Australia is generally supportive of the transitional measures, but does have concerns about the process of verification. Cotton Australia believes more work needs to be done to develop a practical method of verification that is both "Effective and Cost-Effective".
- J Cotton Australia is generally supportive of the validation requirements, use of tamper-evident seals and the requirement to keep records, but believes more work needs to be done to ensure the process is "Effective and Cost-Effective".
- J Cotton Australia strongly argues that there is a significant case for public support, as metering will provide both a private good to the entitlement holder, but also a public good, by ensuring Queensland has a modern and transparent water metering, measurement, management and compliance system.
- J Cotton Australia recommends that as this process moves into the next stage, a detailed conversation around federal and state government support occurs with industry.

Irrigated Cotton Production in Queensland

Currently, irrigated cotton production occurs in the Fitzroy, Burnett-Mary, Condamine-Balonne, and Border River catchments of Queensland. There is also growing interest, and some trials of irrigated cotton, in some of the Cape catchments.

Irrigators draw their water from various sources including groundwater, releases from headwater storages (supplemented water), water harvesting opportunities (unsupplemented water) and from overland flow.

We note that the discussion paper does not specifically consider the measurement of overland-flow, and this is subject of another body of work currently being conducted by Government. Cotton Australia strongly supports efforts to manage the take of Overland Flow in a manner that ensures no growth in use and includes a practical, effective and cost effective measurement and reporting framework; and looks forward to providing input on it at the appropriate time.

A number of our growers are serviced through the newly created Local Management Arrangement schemes Mallowa Irrigation, Theodore Water, and Fairbairn Irrigation, and we welcome the intention to not mandate metering standards within those schemes, but fully support the requirement for accurate metering at the river off-take.

With regards to take of Sunwater supplemented water direct from a watercourse, Cotton Australia does believe that the meters used by Sunwater must be of an accuracy and reliability standard that does provide all stakeholders with confidence that take is limited to what is allowed from the supplemented release.

While cotton production in Queensland does cover a large geographical area, currently the majority of the production occurs within the Queensland portion of the Murray-Darling Basin.

While Cotton Australia believes the Queensland policy should apply state-wide, it is also supportive of the initial focus being within the Queensland portion of the Murray-Darling Basin. This support is based on the fact that water management across the Basin is under extreme scrutiny, subject to a high degree of public interest, and significant water reform has occurred across this region over the past couple of decades. With this background, all stakeholders with an interest in the Basin, including water entitlement holders, need confidence that all users are abiding by the rules.

In addition, Queensland has specific obligations with regards to water metering and compliance under the Murray-Darling Basin Plan.

Water metering, measurement, management and compliance

Cotton Australia recognises the importance of having an effective, cost-effective, robust and transparent water metering, measuring, management and compliance system.

In the 21st Century, it is essential that all stakeholders have confidence that rural water extractions are being managed in accordance with the law, and that water use can be accurately reported.

Cotton Australia is committed to working with our growers and the state government to ensure we do all we can to ensure the integrity of the system; however, our support is contingent on the Queensland Government being prepared to make the required investment in skills, technology and systems that will ensure there is an effective, cost-effective, robust and transparent water metering, measuring, management and compliance regime.

It is our expectation that at the end of this process, the Queensland Government will be able to accurately report in aggregate on water use, total river flows, and the percentage of flows preserved for environment, along with other data that can give all stakeholders confidence in the management of our water resources.

While recognising the considerable capital and on-going costs our growers will be expected to invest, that investment will be without value if the Queensland Government does not also invest in its systems and culture to ensure robust and transparent water management.

Meter ownership

Cotton Australia is supportive of the Consultation Paper's (and current Queensland Government's) position that the ownership of meters rests with the water entitlement holder. Cotton Australia believes that such a position ensures there is no doubt as to who is responsible for ensuring the meter is operational, and for ongoing maintenance.

Responses to the Consultation Paper

Consultation question 1: Considering the proposal for who will need a meter, please provide your feedback on which types of water take or water entitlements should be subject to metering.

Cotton Australia supports the Consultation Paper's position on what types of water take will require a meter.

In particular, it supports the exemption of individual offtakes within an irrigation scheme, be they owned and operated by Sunwater or other bodies, such as the recently-formed LMA schemes Mallowa Irrigation, Theodore Water and Fairbairn Irrigation.

It is Cotton Australia's strong view that the shareholders/customers of those schemes should determine within scheme metering standards. However, Cotton Australia is highly supportive of the offtake from the river into the scheme being measured in accordance with the final policy emerging from this consultation process.

As discussed earlier in this submission, Cotton Australia does believe all stakeholders need confidence that the meter used by a Sunwater customer drawing from a watercourse is accurate.

With regards to stock and domestic take, Cotton Australia accepts that the measurement of all stock and domestic take would neither be effective or cost-effective.

However, Cotton Australia respectfully suggests that the Queensland Government may wish to introduce a form of volumetric entitlement and metering, where a sub-division has the potential to increase stock and domestic take past what may have been historically expected for a parcel of land.

Consultation question 2: Should there be thresholds or limits on the requirement for a meter? If so, what would they be and why?

In keeping with the policy of “Effective and Cost-Effective” there may be circumstances where metering may not be justified because:

- J The annual take is so low that the cost of metering cannot be justified. The threshold is likely to vary from catchment/source to catchment/source. However, regardless of the take, if an entitlement is to be traded, in a situation where at least some water use will be retained, then the take needs to be licenced to ensure equity. As a guide, Cotton Australia would suggest that any entitlement less than 10 megalitres and not subject to trade, may be exempt from metering. In making this suggestion, Cotton Australia recognises that in some stressed water sources, even a 10 megalitre exemption may be too high.
- J The take is so intermittent that it can be strongly argued that both the cost of installing a meter and the cost of maintaining it in a working condition fails the “Effective and Cost-Effective” policy. As a guide, Cotton Australia suggests that a site that can demonstrate average annual activation of less than once every 12 months be exempted, provided an acceptable alternative measurement system has been put in place. The average annual average activation would be determined through the production of records from the previous five years.

Consultation question 3: What factors need to be considered in requiring pattern approved meters where these are available on the market?

Cotton Australia is aware of the National Water Initiative’s requirement for jurisdictions to move towards pattern approved meters which meet AS4747.

However, Cotton Australia is also very concerned that blindly following this approach will lead to a failure of the “Effective and Cost-Effective” policy.

It is therefore supportive of the more pragmatic approach being taken to date by the Queensland Government.

Cotton Australia accepts that there is a competitive market for AS4747 pattern approved meters suitable for installations of 400mm or less. While these meters cannot be considered cheap, they do appear to be affordable, and therefore Cotton Australia does support the application of AS4747 for these installations.

However, once installation sizes increase, both the availability and price of AS4747 meters start to seriously challenge the “Effective and Cost-Effective” policy.

Cotton Australia believes industry and the Queensland Government needs to work together to identify suitable standards and meters for installations that are above 400mm. Ensuring they are both “Effective and Cost-Effective”.

Everyone would recognise that the indicative meter costs included in Attachment 1 of the Consultation Paper are extremely high, and while in some instances they may be over-estimated, it is also highly likely that they have been under-estimated for some sites where the pipe-work is buried underground.

Cotton Australia understands that there are a number of other meters either on the market, or nearing the market, that can deliver a high level of accuracy, which are much more cost-effective to both purchase and install.

Cotton Australia is not opposed to the Queensland Government aspiring to moving to an entirely AS4747 meter fleet over time, but suggests that at this time, a blind adherence to AS4747 would neither be “Effective or Cost-Effective”.

Consultation question 4: In consideration of data recording, storage and transmission, are there circumstances where you consider telemetry is not beneficial?

Cotton Australia is supportive of almost universal telemetry, with a few of very important provisos:

-)] The Queensland Government must have the systems in place to receive, manage, store, report and act on the data, both for water management and compliance. There is zero value in entitlement holders investing in telemetry if the government cannot effectively use the data. While we will discuss limits on data sharing later, there is no doubt that society increasingly expects more transparent information on the use of our water resources.
-)] Privacy considerations and protections must be fully considered and developed with the full and genuine input of industry.
-)] Telemetry cannot be pursued at any costs. Cotton Australia is aware the cost of telemetry services has fallen considerably over recent times, along with greater coverage of areas that can support telemetry. However, we would expect there will be some areas where technical challenges will drive up the cost of telemetry past a point of being “Effective and Cost-Effective”.

- J As with metering, there may be some areas where take is so intermittent the installation of telemetry and its ongoing maintenance and operational costs would simply fail the “Effective and Cost-Effective” test.
- J The entitlement holder must be able to access the same telemetered data as the Queensland Government, in the same timeframe. This in no way should impact the security of the telemetered water use data, but provide a real value-add for the entitlement holder.

While not directly addressed by the Question, Cotton Australia believes that the government should be agnostic as to what carrier platform is used to transmit data. Whether the data is transmitted through a mobile service, a broadband service, a low-bandwidth service, satellite service or any other service should not concern the government, provided the data can be delivered in the required format and with the required security.

Cotton Australia urges the Queensland Government to engage with data transmitting service providers, explore the range of options, and develop suitable standards that do not unnecessarily favour one service provider over another.

Consultation question 5: Should there be thresholds or limits on the requirement for telemetry? If so, what would they be and why?

In some low-risk groundwater sources, telemetered data may not be justified if effective management only requires one or two meter reads per year.

Further, as mentioned above, there are some sites where water is only taken intermittently, and the challenge of maintaining telemetry maybe outweighed the cost.

Consultation question 6: Are there any circumstances where you believe data loggers are not beneficial? If so, please describe these and why.

Cotton Australia is not really technically equipped to answer this question, but would like to pose the following questions for consideration:

- J If telemetry transfers the data on a very regular basis to “the cloud”, is there a need for a data logger that keeps extended period of data?
- J Does a data logger that, say, keeps three months’ worth of data cost significantly less than a data logger that keeps, say, five years’ worth of data?
- J What will be the “legal” source of truth – the data logger, or the data that has been transmitted?

Cotton Australia believes an understanding of the answers to these questions, along with others, can help assess the value and benefit of data loggers.

Consultation question 7: What information would you require from the department to be certain about what your data logger is required to do and which device to install?

Cotton Australia believes it is up to government to be quite specific as to its requirements but this specification may be expressed in two ways:

- J Some larger, outcome-focus organisations might like to take an outcome-focused approach; that is have the Department clearly tell them what form a data logger must store data in, security requirements, length of storage of data etc; and then the organisation can source what it believes is the most appropriate equipment.
- J Other organisations or individuals would prefer certainty, and would simply like the Department to have an approved list of equipment so the entitlement holder can have confidence that equipment acquired from the list meets all the requirements of government. It would be up to the suppliers to seek approval from government.

Consultation question 8: What privacy and commercial-in-confidence considerations do you think are important in relation to the department's and the water entitlement holder's storage, access to and use of water use data?

Cotton Australia supports the open and transparent reporting of the nation's water resources, in a manner that gives confidence to all stakeholders that no one is taking more than they are entitled to, and that they are taking it at a time they are entitled.

To that extent, it is imperative that the systems ensure that the Department knows account balances and also has accurate data on when take occurred and at what rate, so as to ensure compliance with licence conditions.

Cotton Australia supports aggregate reporting of water use on a water source basis in a timely manner. The exact nature of this would vary from water source to water source, and in part be dependent on how water is shared and extracted in each source.

In time, the Department could move to an interactive website, which would show flows along the river system, and maybe a traffic light system showing the allowed extraction conditions at each extraction site, and whether flows are meeting those conditions.

A further enhancement could be another traffic light system which simply shows green – the entitlement holder has a positive account balance, and therefore entitled to pump, provided all other conditions are met.

While Cotton Australia is supportive of transparent reporting of entitlement holders' aggregate usage, the Queensland Government must also be in a position to report on the total available

resource, the percentage use by extractors, the percentage use by the environment, and other data that tells the entire water use story – not a story that just focuses on extractive use.

Cotton Australia is completely opposed to an entitlement holders' account balance being made available to anyone but appropriate Departmental officials. External stakeholders have a right to be confident that an entitlement holder has a positive balance, but the extent of that balance is entirely irrelevant, and the knowledge definitely falls into the Commercial-In-Confidence category.

The reasons for Commercial-in-Confidence are many and varied, but two clear reasons are:

-) As we move towards more and more active water markets, knowledge of individuals' account balances would be of great value to water brokers, buyers and sellers, and could well lead to distorting behaviour.
-) Entitlement holders all have different risk profiles and risk appetites, and open knowledge of account balances could have market-distorting impacts on the attitudes of banks, insurance providers, rural suppliers, etc.

Cotton Australia recommends that as part of the next stage of this policy process there should be a more detailed discussion between government, entitlement holders and other stakeholders as to what information provides a genuine public benefit, and what information is an unnecessary intrusion into entitlement holders' business and private lives.

Consultation question 9: How well do the proposed transitional arrangements balance improved meter accuracy and minimising costs for existing meter owners?

In general, Cotton Australia is supportive of the transitional measures, but does have concerns about the process of verification. Cotton Australia believes more work needs to be done to develop a practical method of verification that is both "Effective and Cost-Effective".

Ideally, verification could be achieved by using an approved, but simple probe style, or strap-on style meter, which could operate in series and verify the accuracy of the installed meter.

Cotton Australia is very concerned that if verification processes become too onerous, the cost of verification will exceed the cost of replacing the meter. While this may hasten the adoption of new meters, it may well result in otherwise properly functioning meters being scrapped and the entitlement holder incurring unwarranted expense – an outcome that would be neither Effective or Cost-Effective.

Consultation question 10: What do you see being the effects of the proposed changes to validation and maintenance requirements?

Cotton Australia is generally supportive of the validation requirements, use of tamper-evident seals and the requirement to keep records.

It is however concerned that both the details of validation and the relatively short period between validation requirements will add significant extra expense.

Cotton Australia recognises the work Irrigation Australia has done in developing validation processes, but it does believe these process should be cross-checked by suitable people who approach the requirement for validation from the point of, "What is the minimum work and expense that needs to be incurred so that everyone can have confidence that the meter is working within the required degree of accuracy?"

If a meter is validated on installation and it has a working data logger and telemetry, then all that should need to be checked for in subsequent validation is whether the meter is recording the volume of flow correctly. If, as discussed above, this can be done by inserting an accurate meter in series, then the expense and effort of verification/validation can be reduced considerably.

Consultation question 11 – Are there any other matters which need to be considered in determining an effective implementation plan?

It is essential that sensitive consideration is given to the affordability of complying with the final policy.

This is even more imperative as so many of Queensland's irrigators are really struggling with drought and the consequential loss of income.

The drought also makes things like verification and validation either impossible or difficult due to the fact that there is little or no water to run through the system.

Cotton Australia is aware that the Federal Government has offered some money to assist metering in the Queensland Murray-Darling, but there is absolutely no detail as to what may be offered, and how it will be rolled out.

Further, there has been no discussion as to whether the Queensland Government is prepared to assist with the cost of implementing this policy by assisting with the cost of meters and their installation.

Cotton Australia strongly argues that there is a significant case for public support, as metering will provide both a private good to the entitlement holder, but also a public good, by ensuring Queensland has a modern and transparent water metering, measurement, management and compliance system.

Cotton Australia recommends that as this process moves into the next stage, a detailed conversation around federal and state government support occurs with industry.



Conclusion

Cotton Australia does recognise the importance of having an effective, cost-effective, robust and transparent water metering, measuring, management and compliance system. Our industry is prepared to share its part in implementing such a system.

However, our support is very much contingent on the Queensland Government doing all it needs to do to deliver on this system once it has received the metered data.

For further information please contact Cotton Australia General Manager Michael Murray on 0427 707868 or michaelm@cotton.org.au.