Changes to floodplain harvesting measurement in the Water Management (General) Regulation 2018

Floodplain harvesting measurement has been made more practical and efficient

Overland flow measurement for unregulated river access licence holders

Unregulated river licence holders now have more flexible measurement options. They can now use storage metering to capture overland flow, similar to the options permitted for floodplain harvesting access licence holders.

They were previously limited to using closed conduit or open channel metering equipment to measure the take of overland flow, which can be impractical.

(See Part 10 Division 3A in the regulation)

Water use during a floodplain harvesting measurement period

Landholders are no longer restricted from irrigating during a floodplain harvesting measurement period while using storage meters, provided they measure the water used for irrigation with a meter that is compliant with the Non-urban metering framework. This change offers greater flexibility for floodplain harvesters without compromising the measurement of their overall water take. Landholders must still comply with existing water account limits and long-term extraction limit compliance actions as set out in the relevant water sharing plan.

How does it work?

An example of how this would work in practice can be seen in Figure 1.

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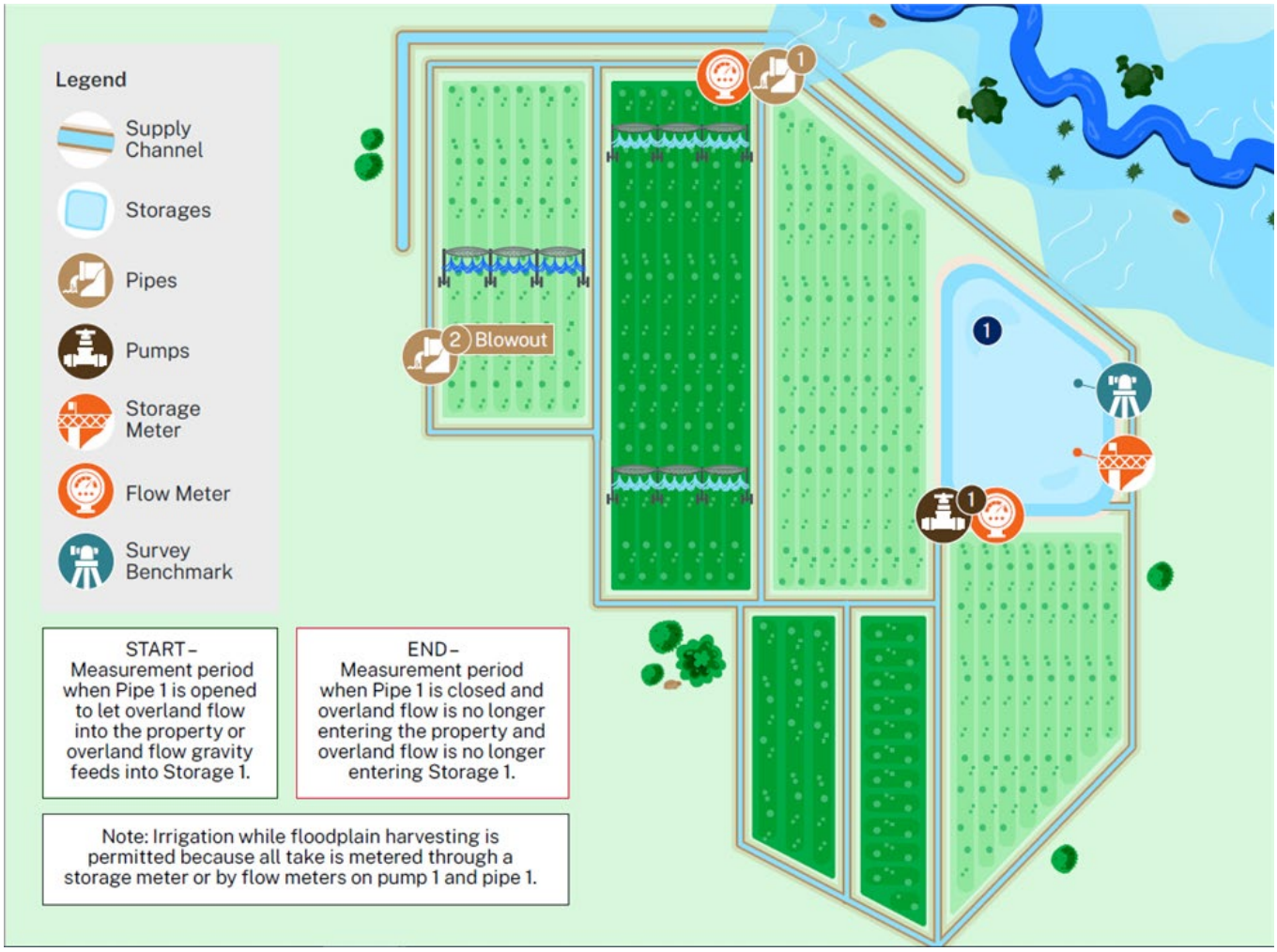
Figure 1. Image showing irrigation during a measurement period



- All offtake points (labelled as pump 1 in Figure 1) nominated on the approval must be metered in compliance with the Non-urban metering framework.
- Water taken under other rights or exemptions cannot be taken at the same time as floodplain harvesting. This ensures that any water taken during a floodplain harvesting period counts solely against the floodplain harvesting access licence.
- Developed area runoff exemptions will not apply. This rule does not apply to licensed water take that is metered using a different access licence.
- The landholder must submit the following details within 24 hours of a floodplain harvesting measurement period ending:
  - the location of water use (specific fields irrigated)
  - the metered works used
  - volumes of water taken in a form prescribed by the Minister.

- Water taken is calculated as the change in storage height plus the water that has flowed through the metered offtake point.
- Water may also be taken directly from a buffer zone area, without first being transferred to a metered storage, provided the infrastructure used to move the water out of the buffer zone is a nominated metered offtake point and the water taken is metered.

(See clause 238FA and 238G in the regulation)

Clarification of the start of a floodplain harvesting measurement period

The amendments address previous ambiguities regarding when a floodplain harvesting measurement period begins. Previously, the measurement period could start when overland flow was collected or impounded by a buffer zone, even if the approval holder had not actively started harvesting. For example, this could occur when water enters the buffer zone or supply channel due to flooding, but pipes or pumps had not been opened to fill storage or begin irrigation.

The regulation is now aligned with the intent of the Floodplain Harvesting Measurement Policy 2020 by clarifying that the measurement period begins when:

- overland flow is removed from the floodplain or brought under control of the work listed on a work approval, or
- if the overland flow cannot be isolated from water taken under another access licence, an access licence exemption, or a basic landholder right.

(See clause 238EA of the regulation)

Definition of a buffer zone

The definition of buffer zone work has been amended in the regulation to remove reference to it as a work. This clarification removes the requirement for buffer zones to be listed on the water supply work approval and equipped with storage meters, eliminating unnecessary costs and administrative burdens without improving measurement accuracy.

Previously, the definition referred to a buffer zone work, which suggested that buffer zones functioned as water supply works. However, buffer zones are not water supply works. They are areas where water is held temporarily, such as surge areas and field storages, which direct floodwater to more permanent storage that is metered. Unlike water supply works, buffer zones can change in use and location depending on a flood event.

(See clause 238AA of the regulation)

Broadening the definition of a duly qualified person for point-of-intake measurement

The definition of a duly qualified person (DQP) has been broadened to allow a DQP who can install metering equipment to also assess eligibility for point-of-intake measurement.

Storage measurement remains the standard method for floodplain harvesting measurement. However, there may be situations where point-of-intake measurement is more suitable. In these cases, the approval holder is required to engage a DQP to determine if their property meets the criteria for point-of-intake measurement.

For an approval holder to use the point-of-intake measurement method, the following conditions must be met:

- A DQP must determine if all water entering the work is reasonably able to be measured by point-of-intake metering equipment.
- Point-of intake metering equipment must be installed to measure the flow of all water entering the approved work using metering equipment that complies with the Non-urban metering framework and installed according to its guidelines.

(See clause 238J and Schedule 8A in the regulation)

Applying floodplain measurement period rules to all water supply works on an approval

The regulation has been amended to ensure that floodplain harvesting measurement rules apply consistently across all works listed on a work approval. This change addresses the differences between floodplain harvesting and the non-urban metering framework, which previously led to confusion.

Floodplain harvesting typically occurs at the farm-scale with water taken through multiple points and different sources simultaneously. This contrasts with the non-urban metering framework where water is usually taken from a single source, such as a pump in a river.

The previous regulation closely mirrored the non-urban metering rules, but this did not always align with the specific characteristics of floodplain harvesting. The amendment clarifies that when a floodplain harvesting measurement period starts, and overland flow is captured, the restrictions on water use during this time will apply to all works on the work approval. This reflects the intent of the Floodplain Harvesting Measurement Policy 2020 and ensures the complexity of floodplain harvesting is accurately reflected in the measurement rules.

This will also ensure that the systems supporting approval holders to nominate the start and end of a floodplain harvesting measurement period align with this consistent application of the rules across all works listed on a work approval.

(See Part 10 Division 3A in the regulation)

Installation of controlling infrastructure when subdividing a work approval

The regulation has been amended to allow approval holders to subdivide their work approval into two or more separate work approvals for floodplain harvesting access licences. However, controlling infrastructure must be installed between the subdivided areas to ensure accurate water measurement during a floodplain harvesting measurement period.

Controlling infrastructure includes any works designed to prevent the movement of water between designated areas, such as an in-channel gate. This ensures the accuracy of water measurement during a measurement period by stopping water moving from one area to another.

This provides greater flexibility for approval holders and aligns with the intent of the Floodplain Harvesting Measurement Policy 2020.

(See clause 238FB in the regulation)

How would it work?

The functionality of controlling infrastructure when subdividing a work approval is demonstrated in Figure 2. In this example, the subdivision of a work approval creates Work Approval A and Work Approval B. Floodplain harvesting occurs under Work Approval B while irrigation use continues from Storage 2 and Storage A1 under Work Approval A.

In this scenario, Pipe B2 and B3 serve as the controlling infrastructure. During the floodplain harvesting measurement period, Pipe B2 and B3 are closed, preventing water movement between works on different approvals.

This allows the accurate measurement of overland flow into Storage B from River 2, as it prevents unmeasured water take being transferred from one storage to another such as Storage 2 or Storage A1. Only water directly sourced from the floodplain is correctly recorded for Work Approval B.

Figure 2. A work approval that has been subdivided and includes controlling infrastructure