

UVWUA Pump Measurement Standard specification

1. Purpose & Intent

This Standard Operating Procedure (SOP) establishes a uniform, enforceable, and legally defensible framework for the measurement, monitoring, and regulation of water diversions throughout the Uvwua system.

The purpose of this document is to:

- Ensure accurate accounting of water usage
- Promote equitable distribution among shareholders
- Support long-term sustainability of available water resources

This standard is intended to eliminate ambiguity, reduce disputes, and provide verifiable, auditable data for compliance enforcement, regulatory actions, and operational decision-making.

All data generated under this standard shall be considered the authoritative record for determining water usage and compliance.

2. Mandatory Measurement & Monitoring requirements

All diversion points shall be equipped with a measurement and monitoring system that meets or exceeds the following minimum requirements:

- Accuracy of $\pm 3\%$ or better across the expected operating range
- Continuous, automated monitoring
- Non-resettable or secured totalized volume measurement
- Tamper-resistant installation and secure enclosure

3. Continuous Monitoring Definition

Continuous monitoring is defined as uninterrupted, automated measurement and recording of both:

- Instantaneous flow rate
- Totalized volume

Systems shall also capture averaged flow values to ensure an accurate representation of water usage over time.

4. System Configuration & Meter Sizing

Approved systems should utilize ultrasonic clamp-on flow meters or other UVWUA-approved equivalent technologies capable of meeting required accuracy and monitoring standards.

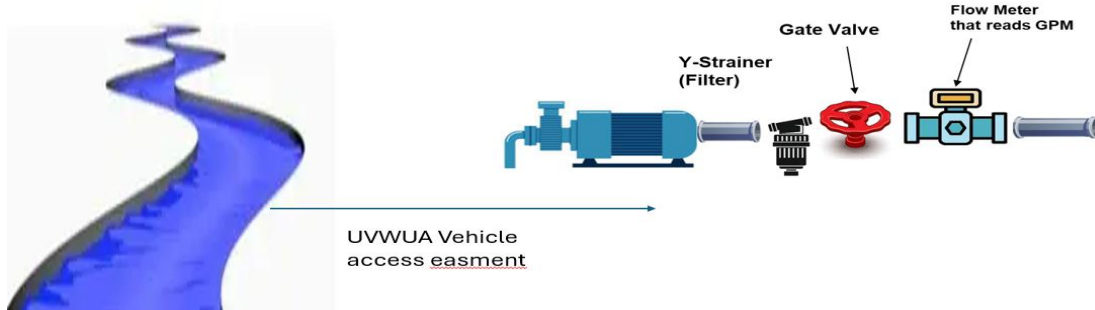
Meter sizing shall be determined based on the allocated water share at the point of diversion to ensure accurate measurement across all expected flow conditions.

5. Installation, Easement & Accessibility Requirements

All measurements and monitoring equipment shall:

- Be installed within the UVWUA easement at the furthest practical point from the water source
- Be positioned to allow UVWUA personnel to access, inspect, verify, and maintain equipment
- Be installed in accordance with manufacturer specifications and industry best practices
- Be securely mounted and protected from environmental exposure
- Be clearly labeled and identifiable

Installation documentation—including photographs, specifications, and configuration details—shall be maintained for verification and audit purposes.



6. Operational Averages & Measurement Integrity

Measurement systems shall be configured to accurately capture both instantaneous and average flow conditions to ensure a true and reliable representation of water usage over time.

All systems must maintain data integrity and prevent unauthorized alteration or manipulation of recorded data.

7. Cost Responsibility

All costs associated with compliance—including equipment, installation, maintenance, and operation shall be at the sole discretion of the shareholder based on the board's discretion.

This requirement is consistent with standard practices across irrigation districts, water distribution companies, and municipalities.

8. Implementation, Supply & Phased Rollout

Implementation of this standard shall occur on a phased basis, beginning at the southern end of the district and progressing northward.

This phased approach:

- Prioritized areas of highest concern
- Allows for structured and manageable deployment

Equipment availability may be subject to supply conditions. UYWUA retains full authority over prioritization, scheduling, and compliance timelines. Implementation shall continue until all diversion points are in full compliance.

9. Over usage & Excess Use Charges

Water usage exceeding the allocated volume associated with a shareholder's water rights shall be subject to overage charges.

- Overages shall be calculated on an acre-foot basis, as determined at the discretion of the Board or in accordance with applicable rules and regulations.
- Charges apply to all water diverted beyond authorized limits.

UWUUA retains full authority to establish, adjust, and enforce overage rates based on water availability, operational conditions, and regulatory requirements.

10. Authority, Governance & Future Modifications

UWUUA retains full authority to interpret, administer, and modify this standard at any time.

The association may approve alternative technologies or methodologies, provided they meet or exceed established requirements for:

- Accuracy
- Performance
- Data integrity

This standard is intended to remain adaptable to evolving water management practices and technological advancements.

11. Legal Responsibility & Cost Recovery

In the event of any legal dispute, enforcement action, or regulatory proceeding related to this standard—including non-compliance, over-diversion, or system tampering—the party determined to be at fault shall be responsible for all associated costs.

These costs include, but are not limited to:

- Attorney fees
- Administrative costs
- Investigation expenses
- Enforcement-related costs incurred by UWUUA or other affected parties

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12. Final Statement

This SOP establishes a comprehensive, enforceable, and scalable framework for water measurement, monitoring, and compliance within UVWUA.

Its purpose is to ensure clarity, accountability, and long-term sustainability for all water users within the district.