



## **GUIDANCE ON FLOWMETER SELECTION, INSTALLATION AND TESTING**

March 11, 2026

### **Purpose**

On November 12, 2025, United Water Conservation District (United) adopted Resolution No. 2025-15 approving changes to the financial policies, including the Verification of Groundwater Production Statement. As of July 1, 2026, United will no longer accept electric bill/meter reports or crop factor reports from all water-producing facilities (i.e., wells) as proof of usage within its jurisdiction. Only meter photos and domestic use calculations will be accepted as proof of usage.<sup>1</sup>

The purpose of metering is to provide accurate measurement of water use, which is how United captures revenue to cover expenses, charges each customer equitably, performs analyses and forecasts of water use and supply, and prevents waste of water. This document provides guidelines for flowmeter selection, installation and calibration, to support implementation of United's updated financial policy. United reserves the right to make these flowmeter guidelines mandatory in the future. Note that the updated financial policy did not change documentation requirements for new meters, which are included in this document for completeness.

United's guidelines align with the County of Ventura metering requirements for new wells in Well Ordinance No. 4468 (*Revised Appendix 1 Policies and Procedures for Water Well Flowmeter Calibration*)<sup>2</sup> and incorporate best practices according to AWWA guidance.<sup>3</sup>

### **Flowmeter Specifications Guidelines**

A list of suggested flowmeter devices, vendors, and approved flow testing contractors is provided in **Attachment A**. The information in Attachment A was compiled by the Carpinteria Groundwater Sustainability Agency (<https://carpgsa.org/>) and the Fox Canyon Groundwater Management Agency (<https://fcgma.org/>), and has not been verified by United.

### **Device Specifications:**

- A flowmeter device designed for inline (permanent) installation.
- United recommends the installation of electronic (magnetic or ultrasonic) meters where possible, for long-term, high-accuracy monitoring, with minimal maintenance requirements.

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<sup>1</sup> See PDF page 175 of <https://www.unitedwater.org/wp-content/uploads/2025/11/2025-11-12-UWCD-Board-of-Directors-Agenda-Packet.pdf>

<sup>2</sup> <https://s47609.pcdn.co/wp-content/uploads/2018/08/Exhibit-1-Appendix-1-BOS-Approved.pdf>

<sup>3</sup> <https://store.awwa.org/M6-Water-Meters-Selection-Installation-Testing-and-Maintenance-Fifth-Edition?whence=>

## GUIDANCE ON FLOWMETER SELECTION, INSTALLATION AND TESTING

- Register: Non-resettable, tamper-proof (factory sealed), recording totalizer (cumulative volume) that reports values of extracted water in units of gallons, cubic feet, or acre-feet.
- Compatible with future AMI Endpoint: United recommends a register with 3-wire encoded output or programmable pulse output to allow for potential future installation of an AMI endpoint.

### System Installation and Performance Specifications:

- Installed by a qualified individual, knowledgeable about flowmeter selection, installation, and testing, and following best practices in AWWA Manual M6.<sup>3</sup>
- Installed according to manufacturer specifications, at the wellhead upstream of any appurtenance in a location that is readily accessible for reading, servicing, and/or testing.
- Installed following the minimum upstream and downstream straight pipe requirements specified by the manufacturer to ensure accurate, non-turbulent flow.
- Installed with a backflow prevention device (if applicable, for impeller/propeller/turbine-type meters).
- Flow tested by a qualified individual, demonstrating calibration within  $\pm 5\%$  accuracy upon installation, and at least every three (3) years thereafter (except for wells with a pump motor of less than or equal to 10 horsepower and that extract less than or equal to 2 acre-feet per year, which shall be calibrated no less than every 10 years). Flowmeter Calibration Test Forms (**Attachment B**) are completed and submitted to United's Finance Department (gwreporting@unitedwater.org).
- Flow testing should follow manufacturer's recommended testing procedures and best practices in AWWA Manual M6<sup>3</sup>, including flow testing at maximum, intermediate, and minimum flow rates.

### Documentation Requirements

The following documentation shall be submitted to United's Finance Department (gwreporting@unitedwater.org) within 30 days of any meter installations.

- New Meter Information Form (see **Attachment C**)
- Photographs of the flowmeter device. Digital photographs shall be date stamped and the filename shall include the state well number and meter serial number. Photographs need to show:
  - a. The well and discharge piping with meter location visible,
  - b. Flowmeter face with all totalizer digits and flowmeter units visible and legible,
  - c. Flowmeter serial number.

## GUIDANCE ON FLOWMETER SELECTION, INSTALLATION AND TESTING

### Attachments

**Attachment A** – List of Suggested Meters, Vendors and Flow Testing Contractors

[https://fcgma.org/wp-content/uploads/2022/06/Approved\\_Flowmeter\\_Calibration\\_Contractors\\_190910.pdf](https://fcgma.org/wp-content/uploads/2022/06/Approved_Flowmeter_Calibration_Contractors_190910.pdf)

<https://carpgsa.org/doc/2519/>

**Attachment B** – Flowmeter Calibration Test Form

Insert link

**Attachment C** – New Meter Information Form

<https://www.unitedwater.org/wp-content/uploads/2024/09/Well-New-Meter-Information-Form.pdf>

(English)

<https://www.unitedwater.org/wp-content/uploads/2024/09/Informacion-Del-Nuevo-Medidor-del-Pozo.pdf> (Spanish)