



Why Your Grow Facility Pays More for Water Than It Should — and How to Fix It

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your irrigation cycles, RO systems, and HVAC dehumidification all draw from the same supply — but your meter counts more than arrives. **Irrigation zone cycling, RO pump startups, and HVAC demand create the conditions for air, gas, and turbulence to form in the line at your meter — and you're billed for it.** The FCD (Flow Conditioning Device) corrects the measurement. Nutrient ratios and every crop parameter stay the same. Your water bill drops — and so does your sewer bill, because sewer charges are calculated from the same inflated meter reading. One device. Two bills fixed.

WHY GROW FACILITY WATER METERS OVER-READ

The Core Problem: Irrigation Zone Cycling Creates the Highest-Frequency Demand Events of Any Agricultural Facility

Indoor grows run irrigation across multiple zones throughout every light period — each zone activation an open-valve event generating air, gas, and turbulence in the line at the meter. RO pump startups compound those events. Nutrient ratios are controlled downstream of the meter. The FCD corrects the measurement at the meter without touching any irrigation schedule or crop parameter.

THE THREE OVER-READING SOURCES UNIQUE TO CANNABIS & HYDROPONIC GROWS

Irrigation Zone Cycling

Multi-zone irrigation cycling throughout every light period creates the highest-frequency demand events of any grow facility — each zone activation generating air, gas, and turbulence at the supply meter.

RO System Pump Startups

Reverse osmosis system pump startups create sudden high-velocity demand events — generating air, gas, and turbulence at the supply meter on every RO activation throughout the production cycle.

HVAC Dehumidification Cycling

Grow room HVAC and dehumidification systems cycling with canopy load create continuous variable demand — compounding irrigation and RO over-reading throughout every operating day.

Your Water Intensity Per Pound of Dried Flower Is Better Than Your Meter Shows

State regulators and MSO sustainability programs track water intensity per pound of production. When the meter over-reads, reported intensity is inflated. After FCD installation, metered intake reflects true use — improving the accuracy of intensity metrics for state reporting, investor ESG disclosure, and seed-to-sale compliance documentation.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ Irrigation cycling inflates meter every light period
- ✗ RO startups compound over-reading daily
- ✗ Water intensity per lb of flower overstated
- ✗ Sewer charge tied to inflated meter

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WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Irrigation zone cycles read accurately
- ✓ RO system demand measured correctly
- ✓ True water intensity per lb revealed
- ✓ Sewer charge based on real usage

5–30%

Average water & sewer bill reduction

46%

Highest documented single-site reduction

~1 Hour

Install time — water off about 1 hour

6-Mo

Money-back, no questions asked · install non-refundable

How the FCD Works — Four Steps

1

Installs between two pipe joints right after your water meter — water off about one hour

2

Creates a slight back-pressure that extends back through the meter, reducing air, gas, and turbulence

3

Delivers a laminar-like flow profile through the meter — the condition it was calibrated to read

4

Meter reads accurately. Bill drops. Every nutrient ratio, irrigation schedule, RO parameter, and crop protocol is effectively unchanged.