



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

Water Flow Innovations LLC

Flow Conditioning Device (FCD)
waterflowinnovations.com

Your wash lines, pelletizer cooling, and material sorting all depend on consistent water supply — but your meter counts more than actually arrives. **Wash line startups, pelletizer quench cycling, and sorting float tank 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. Your process parameters don't change. 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 PLASTIC RECYCLING FACILITY WATER METERS OVER-READ

The Core Problem: Wash Lines and Pelletizer Quench Systems Are Continuous High-Velocity Open-Valve Operations

Plastic wash lines run at high flow rates continuously — generating air, gas, and turbulence in the line at the meter throughout every operating hour. Pelletizer quench water cycling compounds that over-reading on every production run. Your throughput data is accurate. Your municipal bill is not. The FCD corrects that at the meter without changing any wash line or pelletizer parameter.

THE THREE OVER-READING SOURCES UNIQUE TO PLASTIC RECYCLING & PELLETIZING



Wash Line Startups & Flow

Wash line startup events and continuous high-flow operation create sustained open-valve demand — generating air, gas, and turbulence at the supply meter from the moment each shift begins.



Pelletizer Quench Cycling

Pelletizer strand quench water cycling on and off with production creates variable high-velocity demand events — compounding wash line over-reading across every production run and shift change.



Float Tank Separation Demand

Density separation float tank water demand cycles with material feed rate — creating variable open-valve events that add to wash line and pelletizer over-reading throughout every operating day.



Your Recycled Content Water Intensity Data Is Better Than Your Meter Shows

If your APR Design Guide compliance, How2Recycle certification, or brand customer scorecards (P&G, Unilever, Coca-Cola) use metered intake as the water intensity baseline for recycled content production, those figures are inflated. After FCD installation, your water intensity per ton of recycled pellet becomes more accurate — documented from utility bills, no added metering required.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Air, gas & turbulence billed as water volume
- ✗ Wash line startup inflates meter every shift
- ✗ Pelletizer quench compounds over-reading
- ✗ Water intensity per ton of pellet overstated
- ✗ Sewer charge tied to inflated meter



WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Wash line demand reads accurately
- ✓ Pelletizer quench measured correctly
- ✓ True water intensity per ton 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. Wash line flow rates, pelletizer quench, float tank levels, and every process parameter are effectively unchanged.

FREE SAVINGS ESTIMATE

Instant estimate — takes 30 seconds, no contact info required.

waterflowinnovations.com/water-bill-savings-calculator

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CERTIFICATIONS

IAPMO NSF/ANSI/CAN 61 KIWA GMP SQF

316L Stainless Steel · Made in USA
Under 0.8 psi pressure loss
Lifetime Transferable Warranty