

# This presentation premiered at WaterSmart Innovations

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# Pressure Off Your Line is Pressure Off Your Mind



*Inland Empire Utilities Agency*

**A MUNICIPAL WATER DISTRICT**

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Water Smart Innovations

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# Program Overview

- Background
- Guidelines
- Services
- Process
- Pilot Summary
- Lessons Learned



# Who Are We?

- ❑ Regional wholesale supplier of imported water and wastewater treatment services
- ❑ Founded in 1950 (Chino Basin Municipal Water District)
- ❑ Covers 242-square miles – western San Bernardino County
- ❑ Serves a population of 875,000 people
- ❑ Retail Member Agencies serving the communities of:

- *City of Chino*
- *City of Chino Hills*
- *City of Upland*
- *Cucamonga Valley Water District (Rancho Cucamonga)*
- *Fontana Water Company (City of Fontana)*
- *Monte Vista Water District (Montclair, Chino, Ontario)*
- *Ontario Municipal Utilities Company*
- *San Antonio Water Company*



Inland Empire Utilities Agency  
Service Area



# Key Areas of Service

- Securing and supplying imported water
- Collecting and treating wastewater
- Producing high-quality renewable products
- Promoting sustainable use of local water resources



Water Use  
Efficiency



Composting  
(IERCF)



Water Supply  
& Wastewater  
Treatment



Renewable  
Energy



Recycled  
Water Supply  
& Distribution



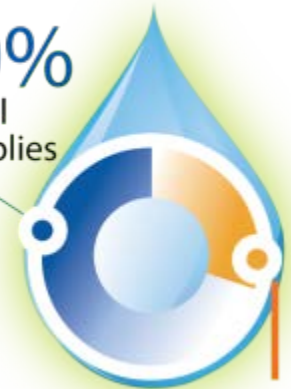
Groundwater  
Recharge

# Regional Water Portfolio



## Water Portfolio

70%  
Local  
Supplies



30%  
State Water  
Project  
(Sierra Nevada)



# Program Background

## Why Deploy a Pressure Regulation Program?

- High water pressure can cause pipes to deteriorate faster
- Prevent and/or reduce indoor fixture leaks
- Adjustment/retrofit/installation of Pressure Regulation Valves (PRV) can extend life of fixtures
- Installing/retrofitting a PRV under high pressure, saves water
- High pressure zone areas identified between 80 psi - 150 psi
- Educate customers in an area that is not well known
- Promote efficient use of water and save energy



# Program Guidelines

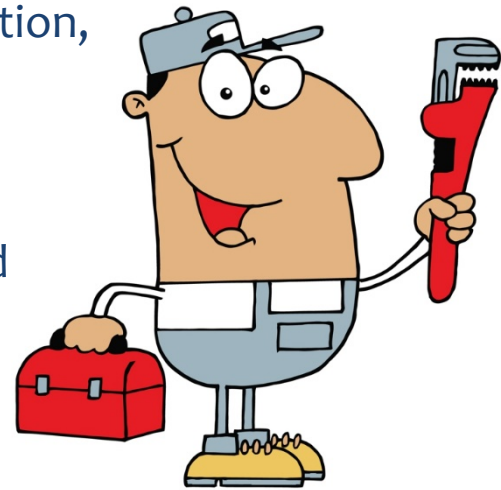
- ◆ Participant must reside in a high pressure zone area identified by its retail agency
- ◆ Initial assessment of pressure must be over 80 PSI
- ◆ Newly installed PRV must remain in-place for a minimum of two years
- ◆ Participant agrees to check pressure once a year to ensure PRV is working properly
- ◆ Participant agrees to sign program contract
- ◆ Participant agrees to water use monitoring and sharing of information with program partners
- ◆ Participant agrees to allow photos taken of the process
- ◆ Program is free of charge – Participant is ineligible for rebate



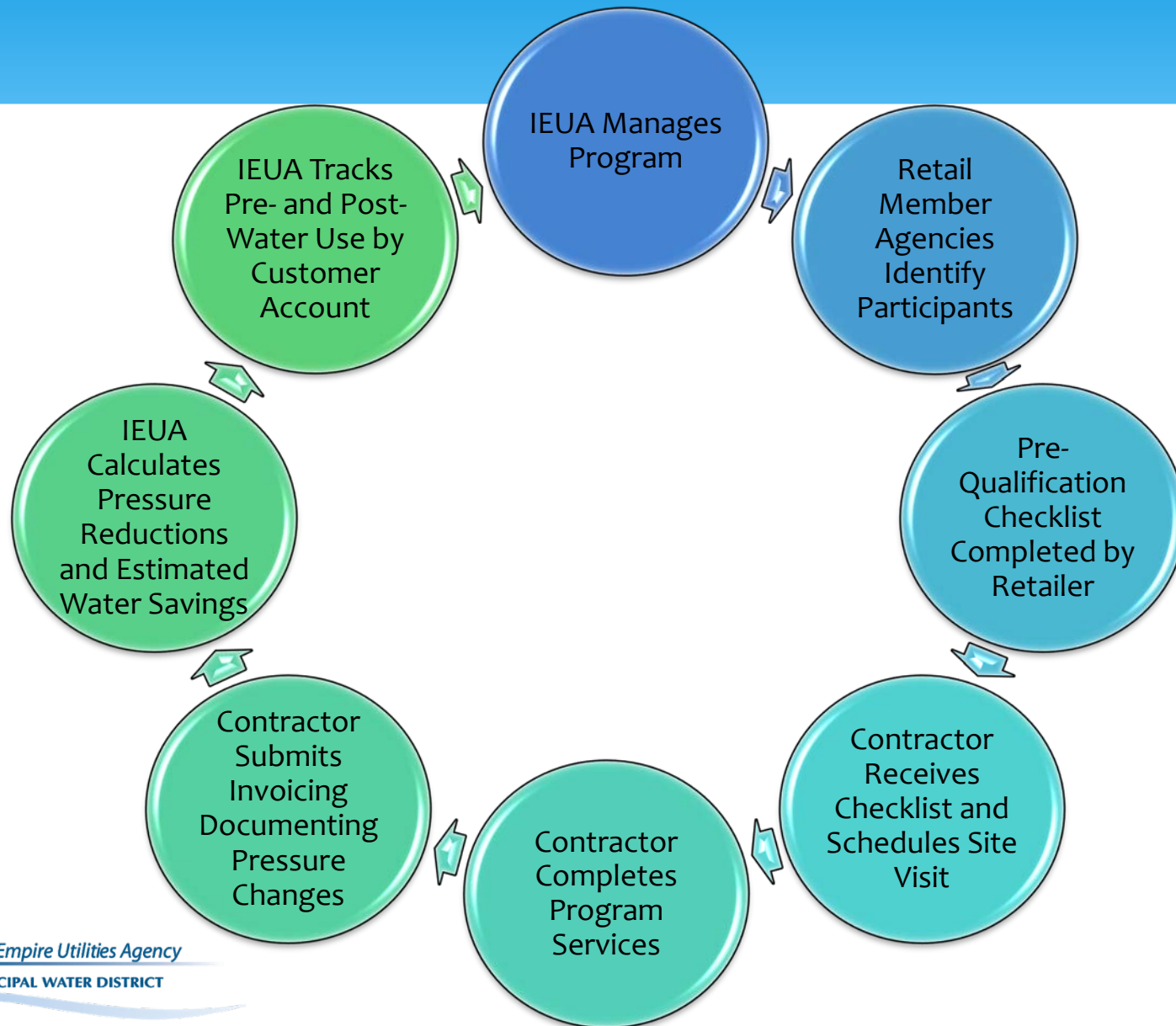


# Program Services

- ✓ Initial assessment of Home Pressure
- ✓ Evaluation of existing PRV for operational efficiency or install new PRV if one doesn't exist
- ✓ Adjust existing PRV if applicable
- ✓ Repair and maintenance existing PRV if the device can be repaired
- ✓ Replace PRV in the event it has failed and cannot be repaired
- ✓ One-year warranty on newly installed PRV from date of installation, includes equipment, parts, and labor
- ✓ Free water pressure test gauge – customer training
- ✓ One-year customer support from date of installation, as needed



# Program Process



# Pilot Program Summary

## Fiscal Year 2016-2017

Total Sites Completed: 141 Participants

Total Sites that Reduced Pressure: 99 Participants

Projected Annual Water Savings: 10 AF

Lifetime Water Savings (10 yrs): 100 AF

Average Per Site Cost: \$375

Program Budget: \$249,000

FY Expenditure: \$50,000

External Funding Received: \$25,342

\*Metropolitan Water District of Southern CA

# Program Flyers

## Take the Pressure off your Pipes!

**BANG! BOOM! DRIP!**

*High home water pressure can cause  
more damage than you think!*



Installing or fixing a water regulator will SAVE

- Water
- Energy
- Maintenance Costs
- Life of Appliances
- Longevity of your home's pipes

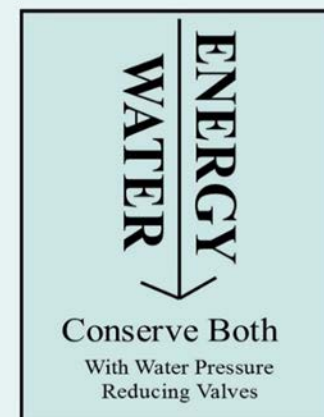
Leaking faucets and banging pipes?

Install a

## Water Pressure Regulator

Installing or fixing your  
regulator can:

- Save Water
- Save Energy
- Save Maintenance
- Save your home's pipes



*Pressure off your water, Pressure off your worries!*

Take the

## PRESSURE

off your pipes!

# Program Forms



Date: \_\_\_\_\_

## Residential Home Pressure Regulation Pre-Qualification Check-List

<b>Retail Agency:</b>		
Account No.		
First Name		
Last Name		
Street Address		
City		
Zip		
Phone No.		
Alt. Phone No.		
E-mail Address		
Year of Home		
Lot Size		
	Yes	No
Do you have an existing Pressure Reduction Valve?		
Is current home pressure available?		
	If yes, PSI	
Additional Notes		



## Residential Pressure Regulating Program Participation Contract

The undersigned ("Participant") is interested in reducing water consumption and promoting the efficient use of water on the property located at \_\_\_\_\_ ("Property"). The Inland Empire Utilities Agency ("IEUA") and \_\_\_\_\_ ("Retail Agency") have agreed to assist the Participant by providing a Residential Pressure Regulating Program ("Program"). It is the Participant's option to implement all or part of the recommendations made by the contractor, EcoTech Services Inc., as a result of the Program. IEUA, the Retail Agency, and EcoTech Services Inc., collectively shall be referred to as "the Parties."

### Program Services

- Step 1: Initial assessment of Home Pressure
- Step 2: Evaluate existing Pressure Regulating Valve (PRV) for operational efficiency or install a new PRV if one does not exist;
- Step 3: Adjust existing PRV if applicable;
- Step 4: Repair and maintenance existing PRV if the device can be repaired;
- Step 5: Replace PRV in the event it has failed and cannot be repaired;
- Step 6: One-year warranty on newly installed PRV from the date of installation which includes, equipment, parts, and labor, and
- Step 7: Site follow-up for up to one-year from date of installation, as needed.

### Participant Requirements

The Participant hereby agrees to allow representatives from EcoTech Services Inc., the Retail Agency, or the IEUA to enter the Property for the following purposes:

- Performing the Program Services as outlined above; and,
- Taking photos throughout the project.



# Lessons Learned

- Pressure is adjusted to PRV Industry Standard (60-70 psi)
- Best locations to check pressure is Laundry Room or Faucets
  - Problem with PRV location and hose bib bypass
  - Five communities in Chino Hills had bypass hose bibs
- Many customers are unaware of PRV's and how they perform
- Customers are unaware that knocking pipes can mean high pressure
- Reducing home pressure doesn't result in customer complaints



# Lessons Learned

- Program doesn't result in complaints about retailer's water delivery
- In certain areas, home developer did not install PRVs
- Lowering pressure doesn't cause toilets or appliances to leak
- Avoid extraordinary circumstances (older homes-Upland)
- Allow customers to correct issues that prohibit participation
- You're only as good as your contractor
- Education and training is key
- Agency site inspections - recommended
- Home Pressure Regulation – low hanging fruit – preventing interior leaks



# Questions?

