

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)





# Targeting Conservation

Helping Customers Save More Water

Elizabeth Lovsted  
Sr. Civil Engineer  
WaterSmart Innovations  
October 4, 2012

- Overview of EMWD
- Conservation Program Goals and Components
- Reasons to Target Conservation
- How to Develop a Targeted Program
- Sources of Information
- EMWD Targeted Programs
- Results
- Summary

EASTERN MUNICIPAL WATER DISTRICT

## Mission Statement

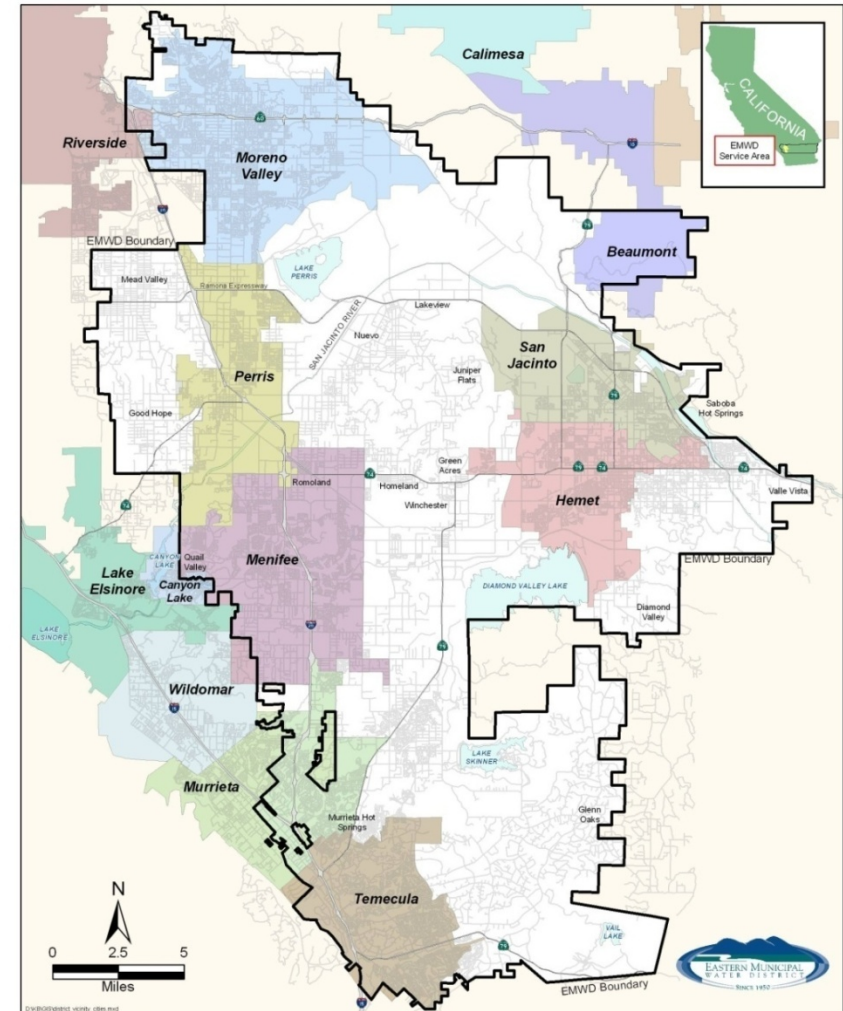
Our mission is to provide safe and reliable water and wastewater services to our community in an economical, efficient, and responsible manner, now and in the future.

# Overview of EMWD

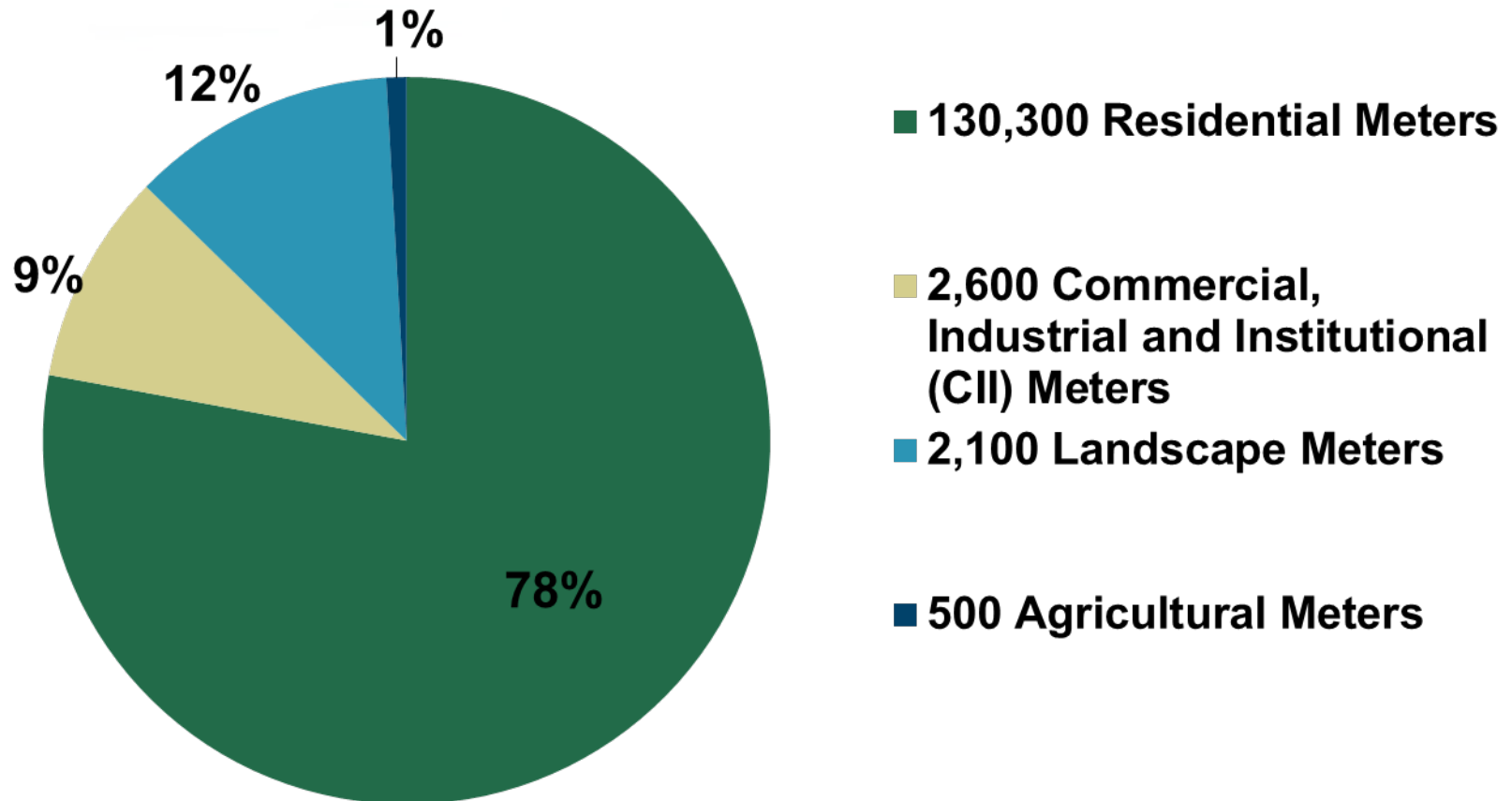


- Established in 1950
- Agency serving:
  - Water / wastewater / recycled
  - Wholesale and retail
- Member Agency - Metropolitan Water District of Southern California (MWD)
- 542 square mile service area
- Population: 755,000
- 2011 Major water sources:
  - 49% imported water
  - 16% groundwater and desalters
  - 35% recycled

Eastern Municipal Water District  
District Vicinity and Cities



## % of Potable Water Demand by Customer Group





# Conservation Program Goals



- Meet State of California reduction requirements by 2020
- Implementation of the Best Management Practices
  - California Urban Water Conservation Council signatory
  - Meet requirements for State funding assistance
- Encourage cost effective water efficiency
  - Pursue grant funding opportunities
  - Take advantage of regional programs
  - Develop programs that will motivate
- Assist customers paying higher tiers
- Promote outdoor efficiency



# Conservation Program Components

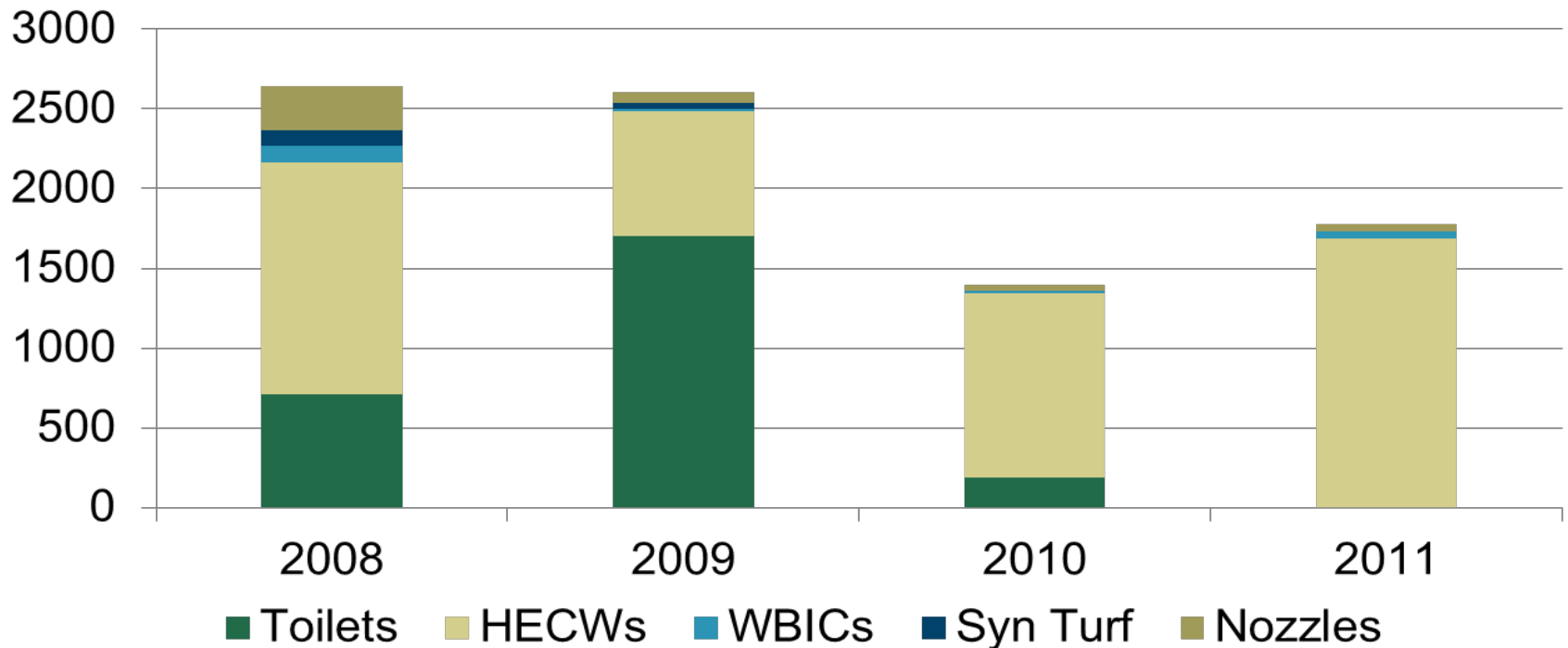


- Allocation Based Tiered Rate Structure
  - Creates an “Allocation” or “Water Budget” for each customer account based upon **reasonable needs and efficient use**
  - Uses Economic Incentives: Water is priced to customer **lower for use within allocation** – much **higher for use over allocation**
- Regional Rebate Program
  - Administered by MWD
  - Funding added by EMWD
  - Control over customer participation is limited
- Special Programs
  - Administered by EMWD
  - Funding through partnerships
  - More flexibility to encourage customer participation

# Reasons to Target

- Changing Customer Participation
  - Number of customers
  - Type of devices

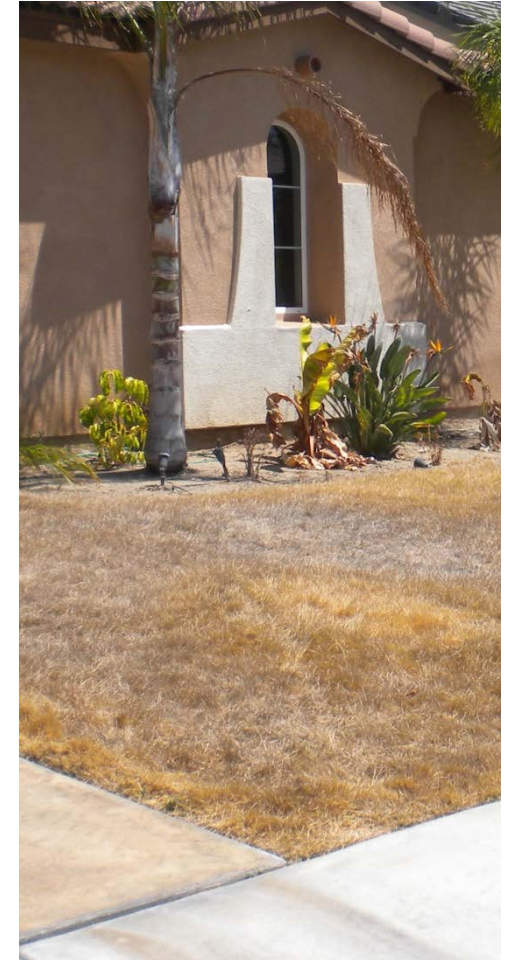
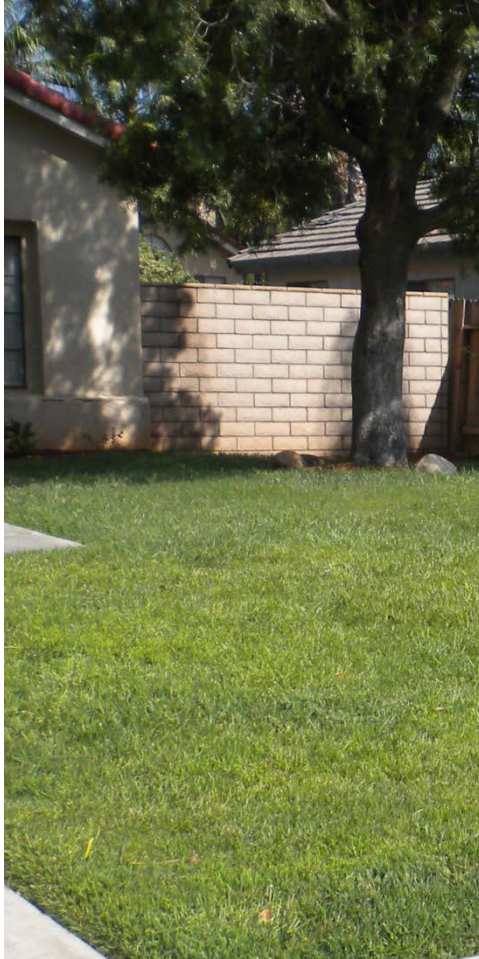
## Number of Residential Customers Participating in Rebate Programs





# Reasons to Target (cont.)

- Savings potential



# Reasons to Target (cont.)



- Funding Options
  - Grant funding opportunities
  - Partner with other agencies
- Reach an untapped market
  - Older homes
  - Low income
- Increase customer satisfaction



Targeted program can help you meet water use efficiency goals cost effectively and make your customers happier



# How to Develop a Targeted Program

- Identify deficiencies
  - Where is efficiency lacking?
  - What devices or customers need a push?
- Determine the target customer group
  - Is customer participation limited because of existing roadblocks? Is there a way to remove them?
  - Are grant funding opportunities available for a certain customer group?
  - Is there a group of customers that have the potential to save a lot of water?

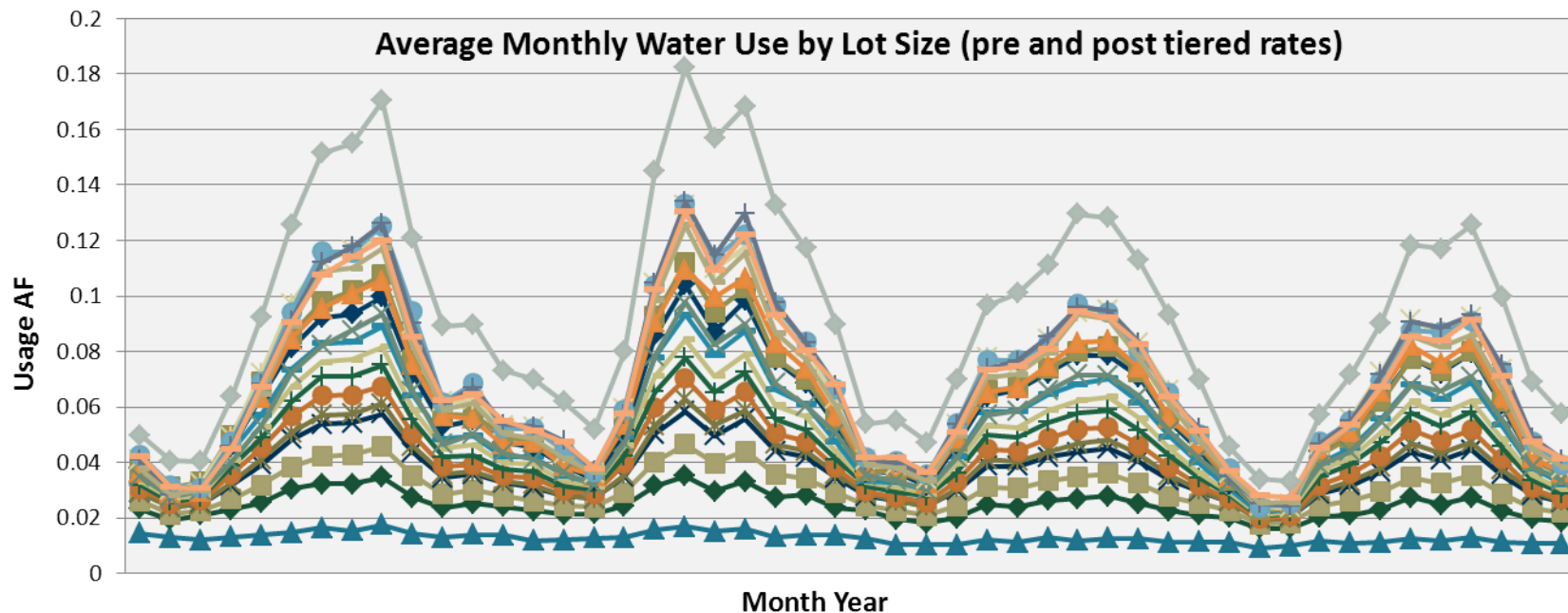


# How to Develop a Targeted Program

- Design the program
  - Identify the water savings target
  - Remove barriers to participation
  - Determine how to reach your intended target
- Fund the program
  - Pursue grant funding
  - Develop agency partnerships
  - Have customers fund the program through their water bill



- Billing data
  - Customer demand (average, above, and below)
  - Seasonal patterns (indoor/outdoor)
  - Customer types
  - Allocation based
    - Persons per household
    - Irrigated area





# Sources of Information (cont.)

- County Parcel Data
  - Lot size
  - Home Values
  - Number of bathrooms
  - Pools
- Census data
  - Number of People
  - Sex, age, race and homeowner status
  - [www.census.gov](http://www.census.gov)
- American Community Survey
  - How they live
  - Income, family, education, ect.
  - [www.census.gov/acs](http://www.census.gov/acs)



- Public School Retrofit
  - Direct install program for public schools in our area
  - Funded through regional partnerships and United States Bureau of Reclamation (USBR)
- Smart Controller Direct Install Program
  - Customer funded direct installation of controllers
- Low Income High Efficiency Washing Machine
  - Install washing machines for low income customers
  - Funded through EMWD, So Cal Gas, MWD and USBR



# Public School Retrofit Program

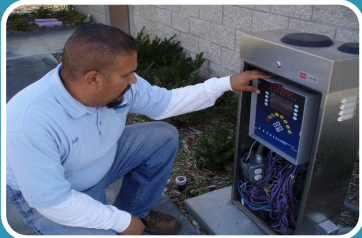
- Deficiency
  - Limited public sector participation in conservation programs
  - Need to increase CII water savings
- Target Customer Group
  - School are some of largest individual water users
  - Staff time and budgets limited participation in existing programs
- Program Design
  - Removed the need for extensive paper work
  - Offer devices installed with limited school effort
  - Save water outdoor and indoors
- Funding the program
  - USBR CALFED Water Use Efficiency Grant
  - MWD
  - EMWD



# Public School Retrofit Program Results



Increased Participation – 48 Schools



Increase Water Savings – 206 AFY



Increased Customer Satisfaction- Built relationships with key staff



# Smart Controller Direct Install Program

- Deficiency
  - Limited controller rebate participation
- Target Customer Group
  - Residential customers in high tiers have highest potential for water savings
  - Installing and programming a controller can be challenging
- Program Design
  - Pre Audit
  - Controllers professionally installed
  - Post audits
- Funding the program
  - Customer funded through payment plan
  - MWD offsets some cost

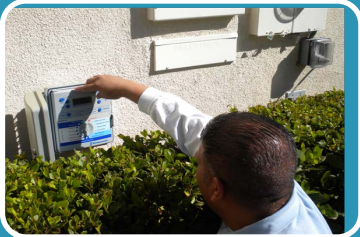




# Smart Controller Direct Install Program Results



Increased Participation – 50% above rebates



Increase Water Savings – 14 % for higher tier customers



Increased Customer Satisfaction- Water bills go down as expected

# Low Income High Efficiency Washer Program

- Deficiency
  - Meet CUWCC compliance requirements
- Target Customer Group
  - Low income customers
  - Four persons per household
- Program Design
  - SoCal Gas designed and administered
- Funding the program
  - SoCal Gas
  - USBR Water SMART
  - MWD
  - EMWD (equivalent to rebate)



# Low Income High Efficiency Washer Program Results



Increased Participation – 898 high efficiency washers installed



Increase Water Savings – TBD



Building partnerships- Open up future opportunities

# Summary

- There are several reasons to focus water use efficiency programs on a certain customer group
- Billing data, Census data and Assessor's parcels data can help select the correct customer group
- Benefits include:
  - Increased customer participation
  - Additional water savings
  - Improved customer satisfaction
  - Partnership opportunities







● EASTERN MUNICIPAL WATER DISTRICT

# Contact Information

Elizabeth Lovsted  
Senior Civil Engineer  
(951) 928-3777 ext. 4307  
[lovstede@emwd.org](mailto:lovstede@emwd.org)