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EASTERN MUNICIPAL WATER DISTRICT

# “Inter-Utility Nexus - Energy Savings Assistance Program”

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# EMWD Overview

# History of EMWD



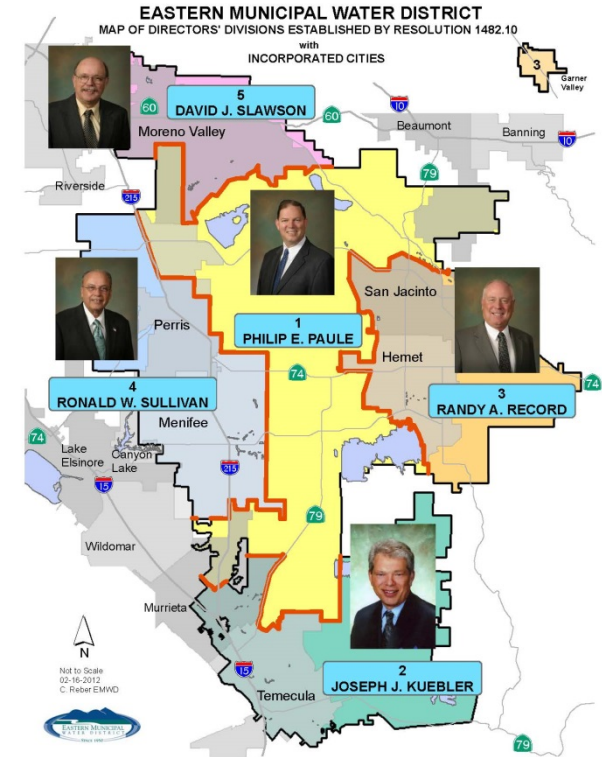
- Established in 1950
- Unique agency, serving:
  - Water / wastewater / recycled
  - Wholesale and retail
- One of 26 member agencies of The Metropolitan Water District of Southern California (MWD)
- One of more than 600 water purveyors in California



# EMWD's Service Area



- 555 gross square miles
- Population: 785,000
- Moreno Valley to Temecula
- Seven cities and the unincorporated areas
- Five district-elected board members
- More than 600 employees
- Normally receive 11.0" to 12.6" of rain per year



- Potable (drinking water)
  - Approx. 142,000 accounts
  - 2 water filtration plants
  - 2 desalters
- Wastewater (sewer)
  - Approx. 237,000 accounts
  - 4 regional reclamation facilities
    - Capacity: 70 million gallons/day (MGD)
- Recycled water: Approx. 300 accounts
- Agricultural/Irrigation: Approx. 130 accounts



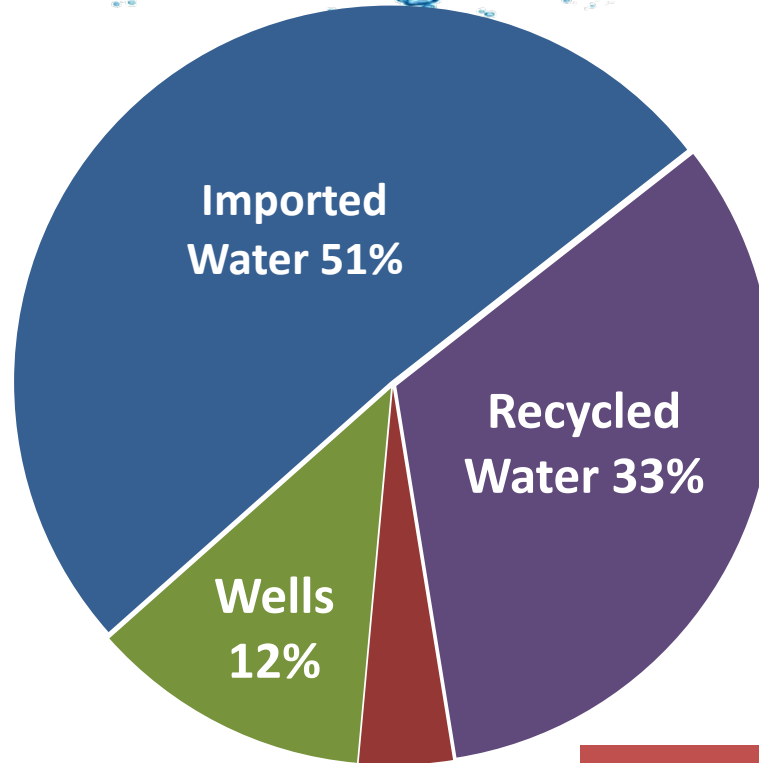


# EMWD Water Supply Portfolio (FYE 2014)



**Imported Water  
Supply from MWD:  
76,897 AF  
51%**

State Water Project  
Colorado River Aqueduct



**Local Water  
Supply:  
74,884 AF  
49%**

Groundwater Wells  
Desalination  
Recycled Water

**Desalination  
4%**

# Imported Water Supply



- State Water Project
  - Begins in Sierras
  - Flows through the Sacramento-San Joaquin Bay Delta
  - Includes 21 dams, 700 miles of pipeline/canals
- Colorado River Aqueduct
  - Dependent on rain/snow in a 7-state region
  - 242 miles of canals/tunnels
  - Begins at Lake Havasu
  - Ends at Lake Mathews





# Local Water Supply



- Groundwater
  - 33 wells (21 domestic, 12 desalter)
    - Perris-Meniffee Desalters
      - Allows EMWD to treat brackish (salty) groundwater supplies
      - Funding partners include U.S. Bureau of Reclamation, Metropolitan Water District High-quality supply in San Jacinto Valley
- Recycled Water
  - EMWD is a national leader in recycled water usage
  - 2014: Reached 100 percent beneficial reuse





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# Utility Partnering Programs





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# Home Energy Efficiency Survey Program (HEES)

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Survey sent to customer with a report to:

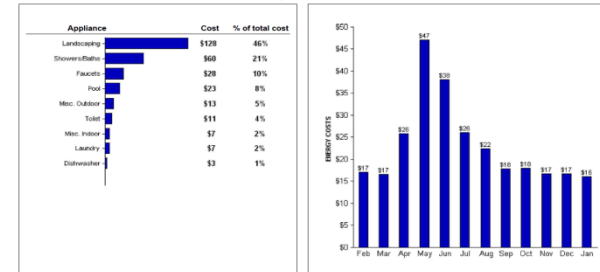
1. Understand how much gas, electricity and water you use annually.
2. Pinpoint household appliances and equipment likely to be using the most energy and water in your home.
3. Learn cost-saving and conservation tips to help manage your energy and water usage.
4. Explore potential rebates and incentives.

FOR SERVICE AT:  
ORIEL, SAMUEL  
4040 LAMARRE AVE  
CULVERCY, CA 90232



Water Cost

Your Annual Water Cost  
February 2008 To June 2009



Note: The estimated usages and costs are based on your answers to the survey.

Ref: 8011049027

# Indoor Sample Questions



- Number of people in the home?
- Water Softener or Purification system?
- Low flow showerheads?
- What type of water heater? Tankless?
- Clotheswasher type?
- Instantaneous water heater at fixture?
- Leaks at sinks or tub diverter?
- Do you let the faucet run when you brush your teeth?

## K. WATER USAGE



1. How many toilets do you have in your home?  
☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5 or more
2. If your home was built before 1992, how many toilets have you replaced?  
☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5 or more
3. Do you use energy-saving (low flow) showerheads?  
☐ Yes, all showers   ☐ Yes, some showers   ☐ No   ☐ Don't know
4. Do you have a water softener?  
☐ Yes   ☐ No
5. Do you have a water filter or purification system?  
☐ Yes   ☐ No

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# Outdoor Sample Questions



- Spa or Pool? Cover?
- Do you wash your car at home?
- Do you use a hose nozzle shut-off device?
- Leaks – Hose Spigot, Irrigation Valve?
- Do you have a lawn that you water regularly?
- What percentage of your yard is lawn?
- How often do you water your lawn?
- Do you hose down your driveway or sidewalk? How often?

6. How many of the faucets in your home have "water-saving" aerators?  
☐ None ☐ Some ☐ All

7. Do any of the following fixtures have leaks?

	Yes	No
Bathroom faucets	<input type="radio"/>	<input type="radio"/>
Tub diverter	<input type="radio"/>	<input type="radio"/>
Showerhead	<input type="radio"/>	<input type="radio"/>
Toilet	<input type="radio"/>	<input type="radio"/>
Kitchen faucet	<input type="radio"/>	<input type="radio"/>
Outside hose faucet	<input type="radio"/>	<input type="radio"/>
Irrigation valve	<input type="radio"/>	<input type="radio"/>

8. Do you let the water faucet run when you:

	Never	Sometimes	Always
Brush your teeth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wash your face or hands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clean dishes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prepare food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. How often do you hose off sidewalks or driveways?

☐ Never ☐ Rarely ☐ Weekly ☐ Monthly

10. How often do you wash your cars at home?

☐ Never ☐ Rarely ☐ Weekly ☐ Monthly

11. Do you use water shut-off hose nozzles on the end of your water hoses?

☐ Yes ☐ No

## L. LAWN & GARDEN



1. Do you have a lawn that you water regularly?

☐ Yes ☐ No (Skip to Lawn & Garden question 5.)

2. What percentage of your yard is lawn?

(Please consider only the area that you typically water.)

☐ 25% ☐ 75%  
☐ 50% ☐ 100%

3. Which system do you use to water your lawn?

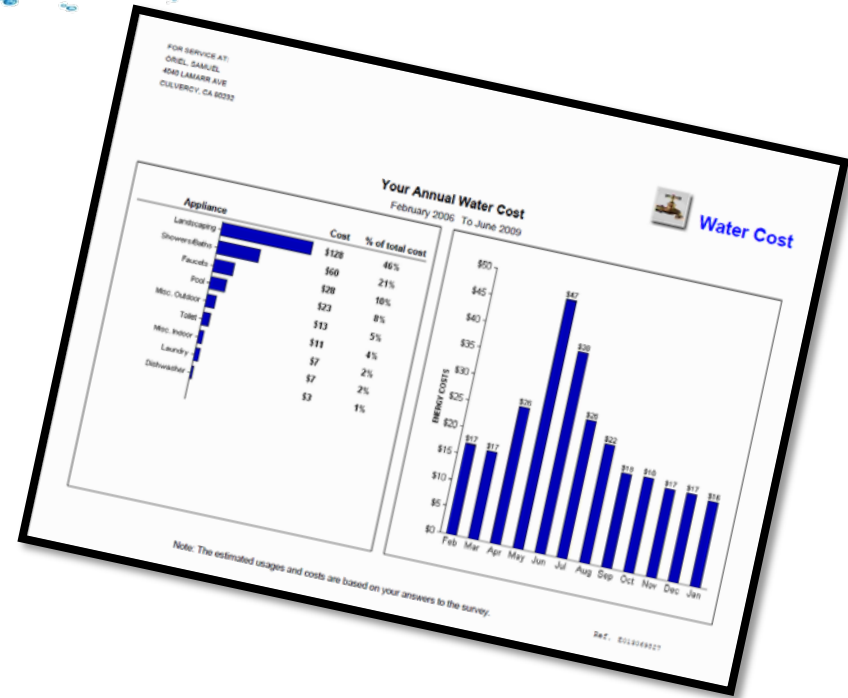
☐ In-ground sprinkler system with automatic control  
☐ In-ground sprinkler system with manual control  
☐ Garden hose



# Participants Receive



- FREE Personalized Report
  - Annual Electricity cost broken down by categories
  - Annual Natural Gas cost broken down by categories
  - Annual water cost broken down by categories
  - Tips to improve efficiency
  - Available Rebates



# Free Energy Saver Kit



Plus for participating, customers will receive a FREE Energy Saver Kit that includes:

- Faucet Aerator Set (2 Bath & 1 Kitchen)
- Low Flow Showerhead
- Furnace Filter Whistle
- Hot Water Gauge
- LED Night Light



# Benefits



- Free program – However partnering on devices for the kit is desirable
- Target customers for specific rebates & programs
- Demographic Data
- Customize Rebates and Conservation Tips in final report
- No program management
- Network with energy partners



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# Low Income Energy Efficiency Program (LIEE)

# Low Income Energy Efficiency Program (LIEE)



Through the Southern California Gas Company (SoCalGas), income-qualified customers are eligible for a number of appliance upgrades or energy-saving services.

In April of 2010, Eastern Municipal Water District (EMWD) applied and received a WaterSmart Grant from the United States Bureau of Reclamation in order to partner with SoCalGas and Metropolitan Water District of Southern California (MWD) to provide and install 1,700 High Efficiency Clotheswashers under the LIEE program.

# Cost of Program



\$1.24 M Project – Estimated Lifetime water savings 809 AF

USBR	\$300,000
MWD	\$145,000
SoCalGas	\$620,000
EMWD	\$175,000

155,239 KWH – estimated energy saved





# Agency Responsibilities



- SoCalGas
  - Managed the Program
  - Provided applications
  - Verified customer eligibility
  - Provided washers and installers
  - Invoiced EMWD
  - Advertising
- EMWD
  - Verify EMWD customer
  - Process invoice to MWD
  - Process USBR Reporting and Invoicing



# Continuation of program - modifications



- Extended program with SoCalGas through June 2015.
  - EMWD provided funding for high efficiency clotheswashers (\$65), showerheads (\$10) and bathroom aerators (\$1).
  - Passed through MWD's clotheswasher rebate of \$85/washer.
  - June 2014 – contract amendment to fund showerheads at \$6 from previous \$10.
- From December 2010 to June 2015

# Number of Devices and Savings to date



December 2010 – June 2015

Devices Installed	Number of Devices	Lifetime Savings
High Efficiency Clotheswashers	2,597	1230 AF
Low Flow Showerheads	5,184	
Bathroom Aerators	3,555	

# Possible Next program?



## 10/10/10 Behavioral Pilot Project

This program would target the Multi-Family Sector to encourage them to save:

- 10% Water
- 10% Natural Gas
- 10% Electricity



# Questions?

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