



The Latest News in Water and Energy Efficiency

Moderator: Mary Ann Dickinson – President & CEO, Alliance for Water Efficiency

- **Tim Barr – Water Use Efficiency Manager, Western Municipal Water District**
- **Bill McDonnell – Sr. Resource Specialist-Water Resource Management, Metropolitan Water District**
- **Gene Rodrigues – Director of Customer Energy Efficiency, Southern California Edison**

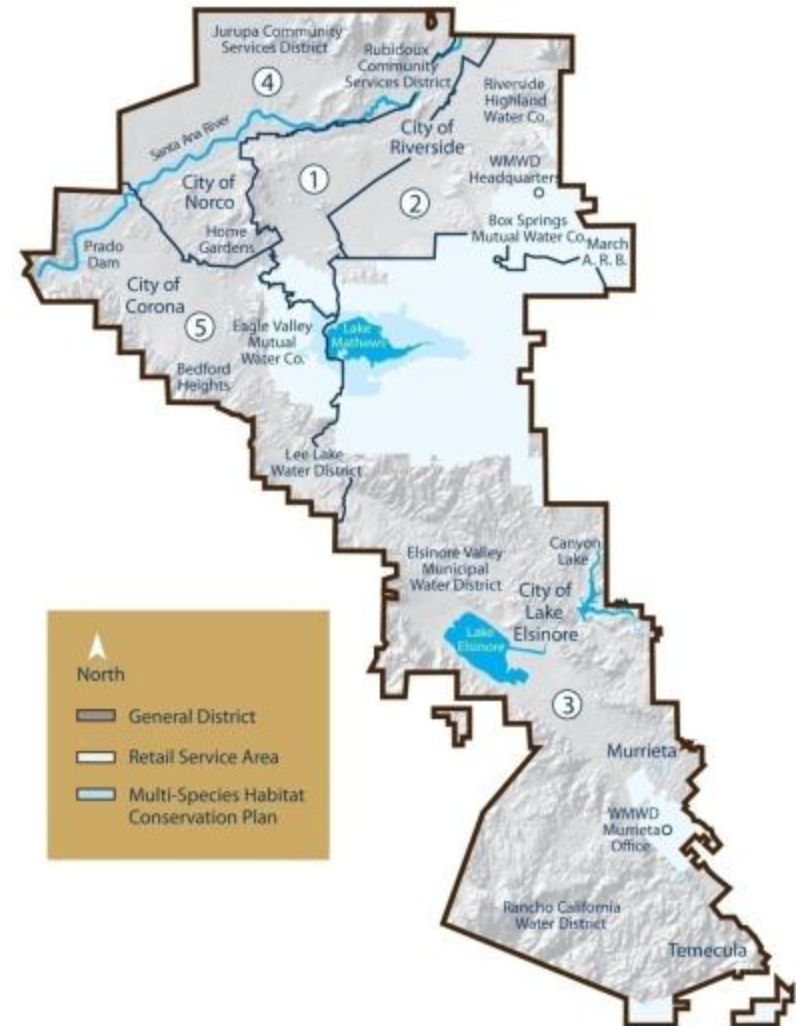
WESTERN MUNICIPAL WATER DISTRICT



Water Efficiency / Customer Support Programs
Tim Barr – Water Use Efficiency Manager

WESTERN'S STATISTICS

- Wholesale population 850K
- 8 wholesale agencies
- 23,500 retail connections
- Retail population 90,800
- 435 miles of pipelines
- 38 water storage reservoirs
- Retail baseline 432 gpcd
- 2020 target 358 gpcd



- ◆ ***Rules, Ordinances & Pricing***
 - ***Landscape design requirements***
 - ***No water waste ordinance***
 - ***Water budgets for all customers***

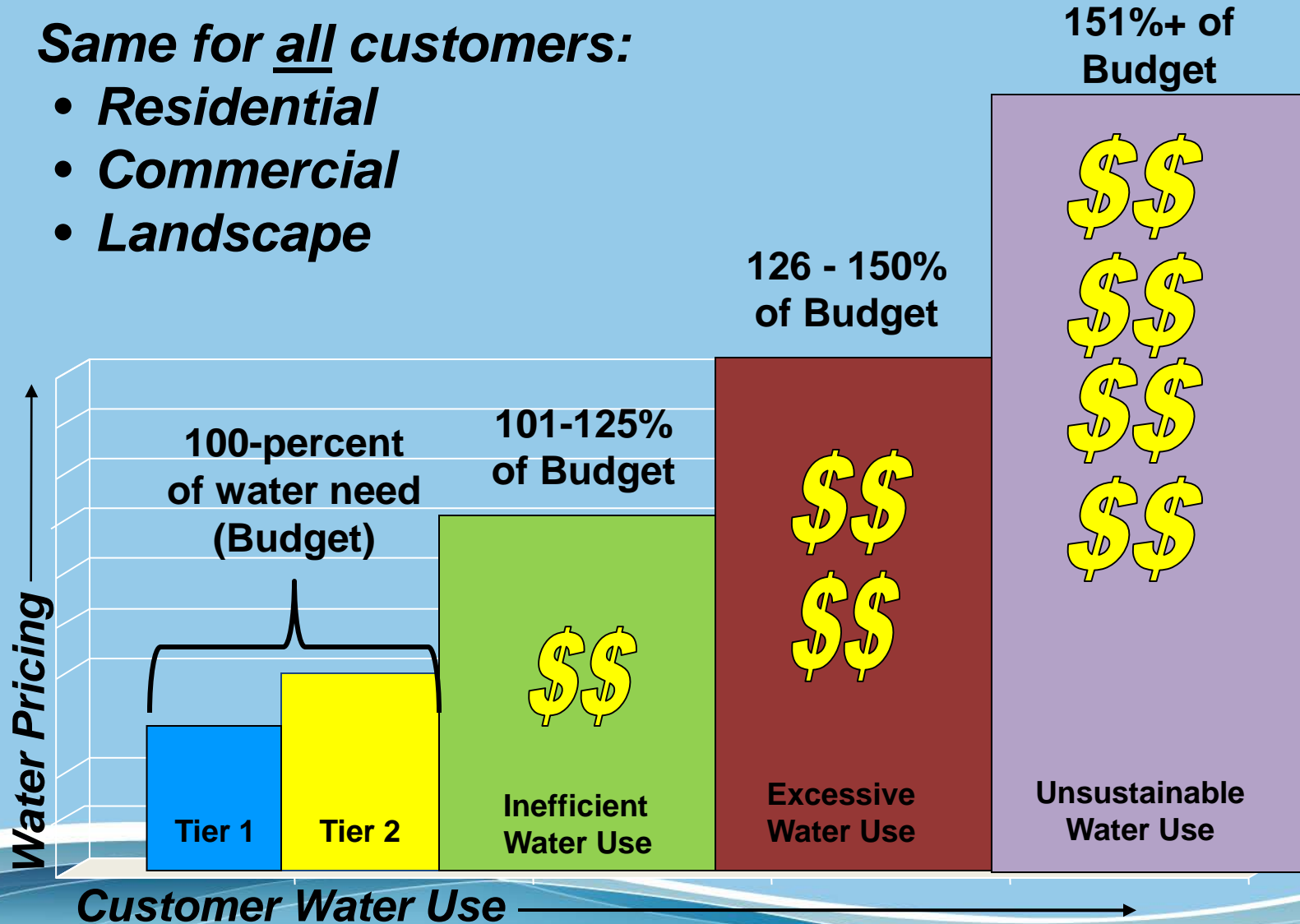
- ◆ ***Programs, Tools & Support***
 - ***Site evaluations***
 - ***Incentives and rebates***
 - ***Customer web portal***

- ◆ ***Messaging & Outreach***
 - ***Bill inserts and newsletters***
 - ***School partnership***
 - ***Community banners***

BUDGET TIERS – A MONTHLY SIGNAL

Same for all customers:

- Residential
- Commercial
- Landscape



CHANGES IN OVER-BUDGET USE



PERIOD	TIER 3	TIER 4	TIER 5
4/12 – 6/12	230 AF	114 AF	208 AF
4/13 – 6/13	223 AF	108 AF	184 AF
	- 3.0 %	- 5.3 %	- 11.5 %

- 💧 ***Tier 3 – Inefficient Water Use***
- 💧 ***Tier 4 – Wasteful Water Use***
- 💧 ***Tier 5 – Unsustainable Water Use***

Water Budget Factors

Major Factors

Other Factors

Every water customer has unique water needs. Usually more water is necessary for large rural properties than for an individual condo or apartment. Also, businesses use water in different ways depending on the particular products they produce, ship or sell. That is why Western developed a rate structure based on meeting each customer's specific water needs with individualized water budgets.

Residential water budgets are calculated using factors that may be unique for every customer. Please use our online form to request changes to any of your water budget factors.

The factors that have the largest impact on your water budget include:



Persons Per Household

Your indoor water budget is 60 gallons per person per day. 60 gallons per person per day provides adequate water for all indoor water uses - cooking, cleaning, sanitation and laundry. In fact, California legislation (SBx7-7) states that 55 gallons per person per day is efficient indoor water use. Western's indoor water budgets provide for a minimum of 3 persons for every single family residential household. If there are more residents in your home please submit an adjustment form ([link to form](#)).

The calculation formula for indoor water use is:

(60 gallons x number of persons per household x days of in the billing period)

Indoor water used within the water budget (Tier 1) is charged at the lowest rate Western can purchase or produce water from its sources.



Irrigated Area

On most properties in western Riverside County, outdoor irrigation consumes the most

permanent one.

Customer Portal

- [Portal Home](#)
- [WMWD.com](#)

Water Budget Information

- [What are Factors](#)
- [What is ET](#)
- [What is a Microzone](#)
- [Understanding Water Budgets](#)

What is ET

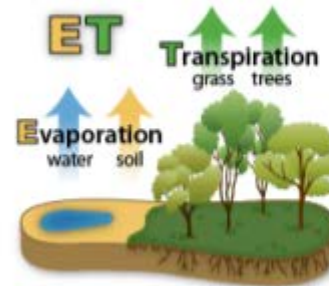
ET is short for Evapotranspiration. Think of it as negative rain or rain falling up! Simply put, it is the amount of water that evaporates out of planted soils and used by plants during a period of time. ET changes as weather changes. It is effected by sunlight, temperature, wind and humidity. ET is an important indicator of how much water plants need for healthy growth.

State laws and regulations use ET information to establish the water budget for efficient outside irrigation. The science of ET was developed by the University of California and is used in Agriculture and landscaping nationwide. Western uses daily ET in the calculation of all outdoor water budgets. As ET goes up because of warm temperatures or wind, your individualized outdoor water budget for irrigation goes up. As ET goes down due to rainfall or cooler temperatures, your outdoor water budget goes down.

The California legislature set maximum annual water allowances for landscape sites that were planted before January 1, 2010 to 80% of the local Evapotranspiration rate. Landscape sites that were installed after January 1, 2010 are limited to 70% of the local ET rate. Special sites such as public recreational sports parks and historic landmarks receive 100% of the local ET.

Plants and ET

- Cool season turfgrass is the standard reference plant for measuring ET in California. Turfgrass is the highest water using plant in urban landscapes. All other landscape plants need less water than turfgrass.
- Trees, shrubs and groundcovers typically require 25-50% less water than turfgrass.
- Citrus trees typically require 20% less water than turfgrass. Avocado are high water use trees and require similar amounts of water as turfgrass.
- Vegetables and herbs typically require less water than turfgrass, but have higher water needs during establishment and fruiting.
- California Friendly plants, succulents, and native plants require much less water than turfgrass



code. Once logged in you will create your permanent one.

Customer Portal

- [Portal Home](#)
- [WMWD.com](#)

Water Budget Information

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Your Current Water Budget

Water Budget VS Consumption

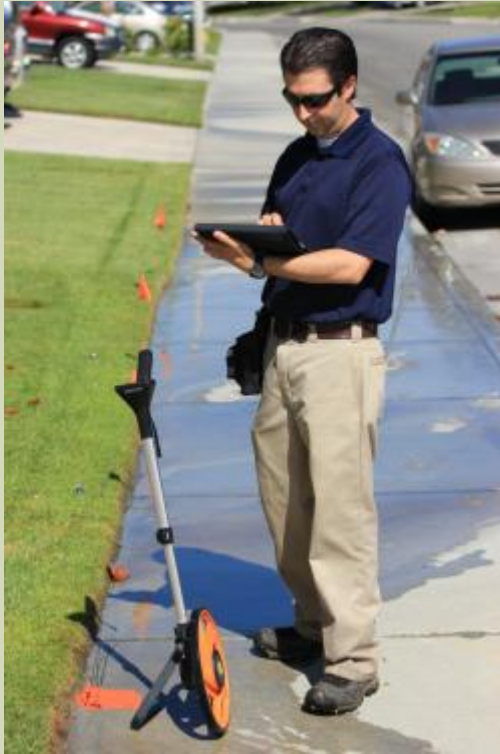


Budget Exceeded!

[Click here for programs and tools to help you get back on budget!](#)

- Tier 5 (Unsustainable)
- Tier 4 (Excessive)
- Tier 3 (Inefficient)
- Tier 2 (Outdoor Allocation)
- Tier 1 (Indoor Allocation)

FREE SITE EVALUATIONS



***Irrigated area measurement
System check
Schedule review***



Electronic report prepared

CUSTOMER SUPPORT PROGRAMS



- Residential, agricultural & commercial outdoor evaluations
- Inland Empire Garden Friendly
- Installation of high-efficiency toilets for multi-family
- Device and fixture rebates
- Demonstration garden & UC Master Gardener how-to workshops
- Performance based programs
- Turf replacement with design assistance





FreeSprinklerNozzles.com

FREE Toro® Precision™ Series Spray Nozzles

**Vouchers Going Fast!
Get Yours While Supplies Last!**

Water service providers all over California have teamed up to provide FREE Precision Spray Nozzles for their customers.

You're just 5 Easy Steps away from saving up to 30% on your outdoor water use!*

Please click on your county.

Counties highlighted on the map: Glenn, Butte, Sacramento, San Joaquin, Alameda, San Mateo, Fresno, Monterey, Tulare, Kern, San Bernardino, Santa Barbara, Ventura, Los Angeles, Orange, Riverside, and San Diego.

Agencies in 18 Counties Participating

OUTREACH & MESSAGING



Community banner at elementary school

OUTREACH & MESSAGING



Intersection banner at demonstration garden

OUTREACH & MESSAGING



Targeted program information delivered through direct mail

REDUCE YOUR OPERATING COSTS!
FreeSprinklerNozzles.com

Slash outdoor water use by a whopping **30%** with **FREE** water-efficient sprinklers!

TORO TORO PRECISION SERIES SPRAY NOZZLES

Your water agency is providing commercial customers with high-efficiency **Precision Series Spray Nozzles**. The nozzles retail at \$4 each and you can receive 100 or more based upon the number of existing spray nozzles at your property.

Save 130,000 gallons annually for every 100 nozzles installed.

Simply sign onto **FreeSprinklerNozzles.com** to participate. Here's how the program works. You'll be asked to type in your water account number and watch a quick informational video. You will then request new nozzles for your property. If you require more than 100 nozzles, you will go through a quick on-line approval process before continuing. Next you print out a voucher and take it to your local participating dealer and pick up your **FREE** spray nozzles.

For large sites or multiple properties, call program representative, **Maureen Erbezniak** at 310-621-4577 for help with program coordination. Installation is easy in nearly all cases... simply unscrew existing spray nozzle and screw in new water-efficient nozzle!

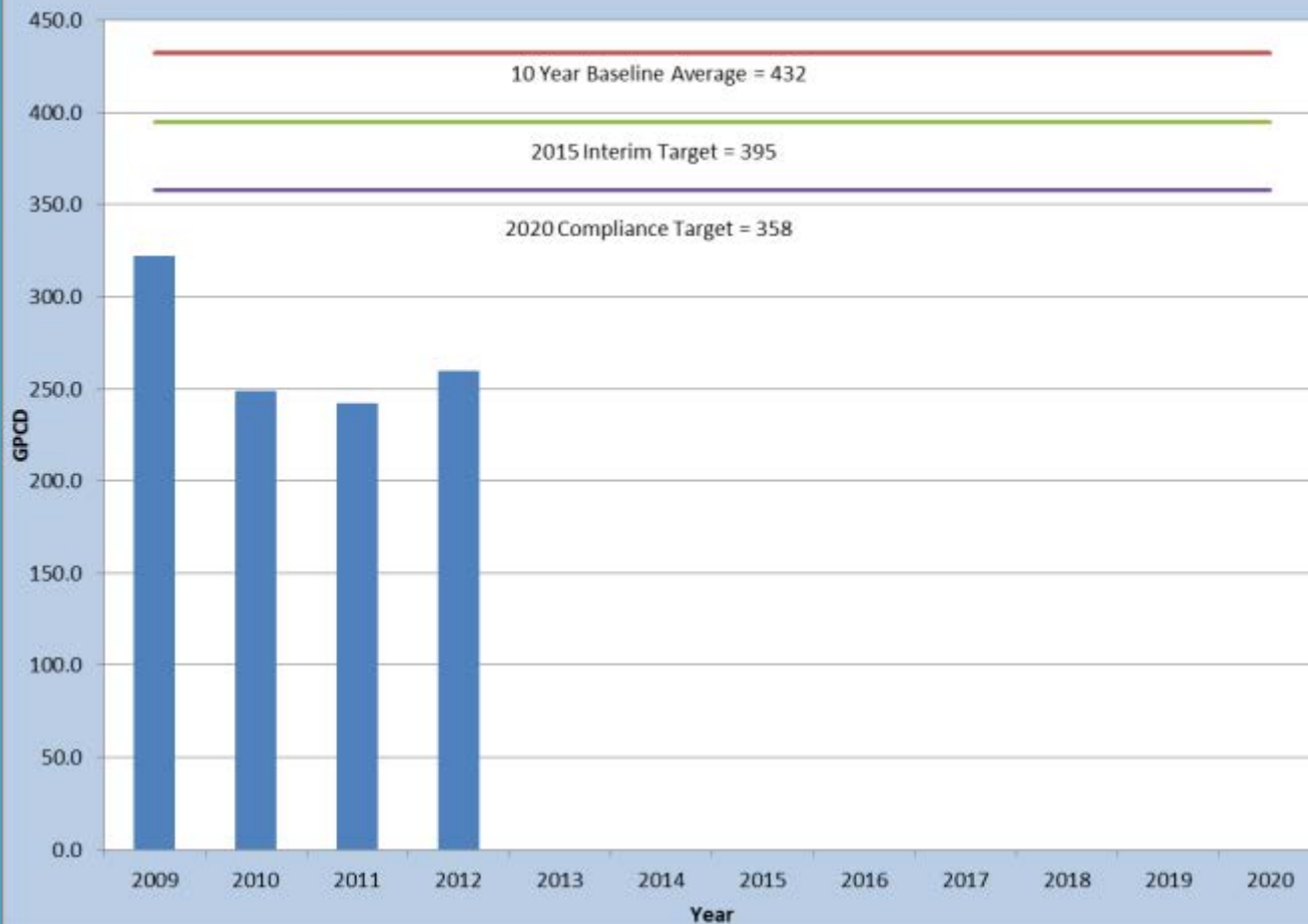
“Great program. The 3500 water efficient nozzles we installed would have cost \$14,000 to buy, but were free to us. The program helped us to rethink our irrigation practices and we're now saving 3.5 million gallons of water per year.”

Jim Fiskin, Sr. General Manager
Ballena at Tyler, Riverside CA

MEASURING PROGRESS



Western Municipal Water District GPCD Tracking





Tim Barr
Water Use Efficiency Manager
Western Municipal Water District
tbarr@wmwd.com
951-571-7254

San Bernardino Water Conference

Metropolitan Water District
of
Southern California



Bill McDonnell

August 23, 2013

www.bewaterwise.com

Metropolitan Water District of Southern California

- Regional water wholesaler
- Includes 6 counties
- 5,200 square miles
- 26 member agencies
- 250-300 retail water agencies
- 19 million people
- Add about 150,000 people/yr
- Imported water supplies meet about half of retail demands



Our New Rebate Program



Residential and Commercial Rebate Programs

Select the applicable rebate program below.



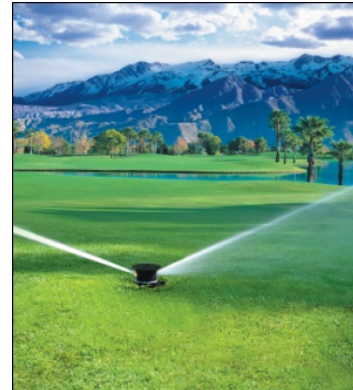
**SoCal Water\$mart
For Residential Customers**



**SoCal Water\$mart
For Commercial Customers**

Landscape

- Weather Based Irrigation Controllers
- Central Computer Irrigation Controller
- Rotating Spray Nozzles
- Large Rotary Nozzles



Plumbing and HVAC



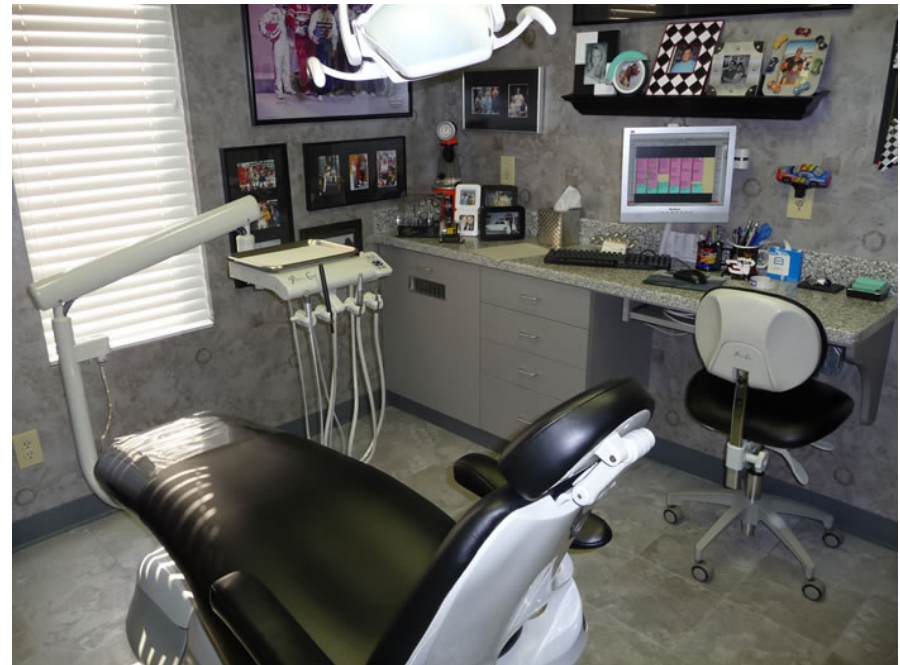
- High Efficiency Toilets
- High Efficiency Urinals
- Conductivity Controllers
- pH Conductivity Controllers



Food Service and Medical



- Air Cooled Ice Machines
- Connectionless Food Steamers
- Dry Vacuum Pump



Water Savings Incentive Program


www.bewaterwise.com



Water Savings Incentive Program
Financial Incentives for Custom Water Efficiency Projects

- Industrial
- Agricultural
- Commercial
- Landscape

BUILDING WATER RELIABILITY THROUGH EFFICIENCY

 THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



Industrial Process Improvements

- Capture, treat and reuse process wastewater



Commercial & Industrial Equipment

- Install new equipment in commercial kitchens and laundries etc
- Capture and use condensate



Landscape Improvements

- Install valves, pumps, drip systems
- Install central control systems with flow sensors
- Remove turf, redesign landscape



Commercial Landscape Surveys

www.bewaterwise.com

- No cost
- Minimum 1 acre irrigated area
- Commercial, institutional, HOAs common areas
- Recommendations to improve water efficiency



Residential Landscape Classes

CALIFORNIA FRIENDLY LANDSCAPE TRAINING
 BECOME A MORE WATERWISE GARDENER

LEARN 6 WAYS TO MAKE YOUR GARDEN **CALIFORNIA FRIENDLY.**

1. Using a Holistic Approach to Gardening
2. Building a Living Soil Sponge
3. Rethinking Elements of Your Site
4. Right Plant, Right Place
5. Using Rainwater as a Resource
6. Managing Irrigation

www.bewaterwise.com

This class is geared for residential customers and provided at no cost. For class schedule and availability, visit

Agency logo and information (to be customized)

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

CALIFORNIA FRIENDLY LANDSCAPE TRAINING
 BECOME A MORE WATERWISE GARDENER

LEARN 6 WAYS TO MAKE YOUR GARDEN **CALIFORNIA FRIENDLY.**

1. Using a Holistic Approach to Gardening
2. Building a Living Soil Sponge
3. Rethinking Elements of Your Site
4. Right Plant, Right Place
5. Using Rainwater as a Resource
6. Managing Irrigation

www.bewaterwise.com

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6. Managing Irrigation

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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Landscape Collaboration with SoCal Gas



A Sempia Energy ally*

HEALTHY SMART LANDSCAPES: SESSION 2 COMMERCIAL LANDSCAPING, HOTELS AND RETAIL CENTERS



Strategies to help improve the health of your guests and environment

Your landscapes must do more than just look good. They must also be good for your guests, finances and environment. In this unique seminar, you will have the opportunity to learn and discuss strategies that can reduce energy and maintenance costs while improving the health and satisfaction of your guests. Combining the science of energy efficiency with restorative landscapes this seminar will be a dynamic learning experience. Also, learn about water conservation in Hotel and Commercial Landscaping.

Offering training and seminars is just one way Southern California Gas Company (SoCalGas®) is helping our customers manage their energy use to save money and energy.

This seminar is for:

- Facility Engineers
- Landscape Operators
- Property Management Companies
- Retail Building Owners
- Apartment Building Owners
- Golf Course and Country Club Facility Engineers

Attend if you want to:

- Reduce energy and maintenance costs
- Learn the types of plants most beneficial to humans
- Discuss the design elements that produce landscape satisfaction
- Discover strategies that help landscape professionals make these changes

Learn from the experts:

Douglas Kent has authored four landscaping books and over 50 articles, teaches at a variety of colleges and has clients throughout the state. Kent's presentations are as informative and professional as fun and fast paced.

Bill McDannell leads MWD's (Metropolitan Water District) water conservation efforts in the commercial and industrial sectors and represents MWD in various forums on matters concerning the interrelationships of California's water and energy resources and infrastructure.

If you have specific questions regarding our energy-efficiency programs and related rebates, contact your representative from SoCalGas or call 1-800-GAS-2000. For information on exhibiting and/or speaking opportunities, please call (562)-803-7453.

WEDNESDAY,
SEPTEMBER 26, 2012
(Seminar #27113)

TIME: 9 A.M. - 12 P.M.
(8:30 a.m. check-in & continental breakfast)
Lunch will be provided

NO COST TO ATTEND

LOCATION:
Southern California
Gas Company's
Energy Resource Center
9240 Firestone Blvd.
Downey, CA 90241



Co-sponsored
with:
Metropolitan
Water District

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A Sempia Energy ally*

ENERGY SMART LANDSCAPES: SESSION 3, STRATEGIES TO CUT ENERGY AND ECONOMIC COSTS WHILE IMPROVING LANDSCAPE SATISFACTION



Energy Smart Landscape Series: Session 3: Schools, Colleges and Universities

Big properties, big costs and big opportunities - modern landscapes must provide positive experiences and be environmentally effective, they must be aesthetically beautiful and energy efficient. Along with tips on improving an individual's landscape experience, this seminar will teach how to maximize economies of scale to minimize energy and economic costs on large properties. The morning will also include an inspiring presentation on regional water conservation and tour of ERC's landscape.

Offering training and seminars is just one way Southern California Gas Company (SoCalGas®) is helping our customers manage their energy use to save money and energy.

This seminar is for:

- University, Community Colleges, K-12, and Private School Facility Directors
- Architects
- Engineers
- Water Efficiency Specialists
- Landscape Architects
- Irrigation Specialists
- Urban Designers
- Arborists
- Biologists

Attend if you want to:

- Reduce energy and maintenance costs
- Learn about lawn alternatives and removal methods
- Study landscape strategies that increase feelings of wellbeing
- Create landscapes that are good for the buildings, environment and people

Learn from the experts:

Douglas Kent has authored four landscaping books and over 50 articles, teaches at a variety of colleges and has clients throughout the state. Kent's presentations are as informative and professional as fun and fast paced.

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WEDNESDAY,
DECEMBER 12, 2012
(Seminar #28157)

TIME: 9 A.M. - 12 P.M.
(8:30 a.m. check-in & continental breakfast)
Lunch will be provided

NO COST TO ATTEND

LOCATION:
Southern California
Gas Company's
Energy Resource Center
9240 Firestone Blvd.
Downey, CA 90241



Co-sponsored
with:
Metropolitan
Water District

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2013 Innovative Conservation Grant Program



- Partnering with USBR, SNWA and CAP
- Next generation of water saving devices or strategies
- Open to businesses, colleges, utilities - anyone
- \$450,000 in grants available
- Began in 2001 – 5th round of grants
- Funded 44 grants for \$1.4 million



Contact Information



Bill McDonnell

213-217-7693

bmcdonnell@mwdh2o.com



Water and Energy Efficiency

Gene Rodrigues

Director

DSM Strategy, Portfolio Oversight & Technical Support

Southern California Edison

SBC Water Conference

Panel 1B

August 23, 2013



California Policy on Water-Energy Nexus

- **California Global Warming Solutions Act of 2006 (AB32):** Created a Water-Energy Climate Action Team to assess, integrate and create initiatives across agencies to achieve water and energy savings and reduce GHG emissions
- **CA 20x2020 Water Conservation Plan (2010):** Achieve 20% reduction in per capita urban water use by 2020
- **California Public Utilities Commission Water-Energy Pilots**
 - Created pilots to evaluate opportunities in water and energy efficiency programs
 - SCE's Leak Detection Pilot Program -- Generated highest energy savings by fixing distribution system leaks
 - ~170 miles of distribution lines treated
 - Embedded energy savings: 178,000 kWh/yr
 - Water savings: 81 million gallons/yr



SCE's 2013 Water–Energy Initiatives

- **Cost-effective energy efficiency opportunities to help save energy and water** (www.sce.com/water)
 - Pump Testing Efficiency Services
 - EE Measures – Rebates for deemed and customized efficiency measures
 - Demand Response Programs – Price responsive & interruptible
 - 20th Annual Water Conference (SCE - Irwindale) - September 10-11, 2013

- **Summer Readiness Campaign – Integration of water conservation with SCE Demand Side Management outreach** (www.saveourh2o.org)
 - “We save water, we save electricity”

- **Partnering with local governments to continue leak detection/water management program development**
 - Direct Savings: Detecting and repairing water leaks
 - Indirect Savings: Improving the methodology to quantify embedded energy savings





Future Water–Energy Efforts in California

Continued collaboration between energy and water entities

- **Common Objectives**

- Safety
- Reliability
- Affordability

- **Common Concerns**

- Infrastructure Challenges
- Environmental Considerations
- Supply Constraints

- **California Statewide Efforts**

- Continue to explore integration of programs and services across energy, water, and air quality conservation resources
- Continue progress towards AB32 and 20x2020 goals





Thank You!

Gene Rodrigues

Director of DSM Strategy, Portfolio Oversight, and Technical Support

Southern California Edison

gene.rodrigues@sce.com