

Drought & Water Conservation in Manhattan Beach

City of Manhattan Beach

May 12, 2015

Public Works Department, (310) 802-5324



Overview

- Drought Situation in CA
- Water Conservation in Manhattan Beach
- Solutions from West Basin Municipal Water District
- Tips from the Manhattan Beach Botanical Garden on Sustainable Landscaping
- Next Steps



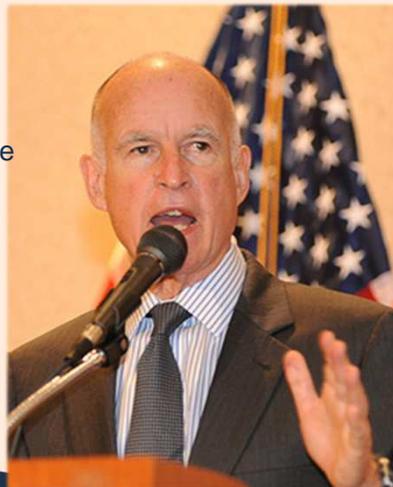
Drought Situation

- 4th Year of Worst Drought in California History
- Reservoirs Across the State are Very Low
- Governor Brown
 - January 2014 proclaimed State of Emergency
 - April 2014 Continued State of Emergency and asked for Voluntary 20% reduction
 - April 2015 Issued Executive Order



Governor's Executive Order

- Four major action areas
 1. Save water
 2. Increase enforcement against water waste
 3. Invest in new technologies
 4. Streamline Government response



State Board Regulations

- State Water Resources Control Board approved regulations
 - 1.3 million acre-feet savings goal
 - June – Feb timeframe
- (It's all about the turf!)



State Board Regulations

Proposed conservation goals for West Basin retail agencies

Retail Customer Agency	% Saved Jun-14 - Feb-15	R-GPCD Jul-Sep 2014	Conservation Standard
Cal American Water	7%	156.8	28%
CWS - Dominguez	4%	83.7	16%
CWS – Hawthorne	-6%	86.7	16%
CWS – Hermosa Redondo	0%	96.4	20%
CWS – Palos Verdes	4%	255.4	36%
City of El Segundo	-6%	97.9	20%
City of Inglewood	7%	65.1	12%
City of Lomita	7%	98.3	20%
City of Manhattan Beach	5%	116.7	24%
County Waterworks District	1%	248.9	36%
Golden State Water Co – Culver City	5%	113.1	24%
Golden State Water Co - Southwest	6%	81.7	16%

“Conservation Standard” determined by average residential GPCD July – Sept 2014

Tier	R-GPCD Range		Conservation Standard
	From	To	
1	Reserved		4%
2	0	64.99	8%
3	65	79.99	12%
4	80	94.99	16%
5	95	109.99	20%
6	110	129.99	24%
7	130	169.99	28%
8	170	214.99	32%
9	215	612	36%

Phillips Snow Course April 1, 2010



Phillips Snow Course April 1, 2015



Outreach for Water Conservation

- ▶ Phased approach to provide information on water conservation to the community
- ▶ Public meetings, website announcements, newsletters and mailers, media advertisements, street banners, educational signage
- ▶ Share information from local experts



Grades of Green Youth Corps

- ▶ California Water Crisis and Drought
 - Problems and Solutions for California and Beyond
- ▶ Presented by:
Lauren Stargardter, 8th Grade
Manhattan Beach Middle School



Water Conservation Community Meeting

Raul Saenz, Utilities Division
Public Works Department



Emergency Conservation Resolution and Regulation

- ▶ **04/01/15:** Governor Brown issued EO B-29-15 that directs the State Water Resources Control (Board) to:
 - Restrictions to achieve a statewide 25% reduction water usage
 - Require commercial/industrial/institutional users to implement water efficiency measures
 - Prohibit irrigation with potable water of ornamental turf in public street medians
 - Prohibit irrigation with potable water outside newly constructed homes and buildings that is not delivered by drip or microspray systems
- ▶ **05/05/15:** Board adopted Emergency Conservation Regulation



Emergency Conservation Prohibitions

- ▶ Reduce water use by 25% statewide
- ▶ Irrigation with potable water of turf on public street medians
- ▶ Irrigation outside newly constructed homes/buildings with drip or micro spray
- ▶ Using potable water to wash sidewalks and driveways
- ▶ Allowing runoff when irrigating with potable water
- ▶ Using hoses with no automatic shutoff nozzles to wash cars
- ▶ Potable water in decorative water features w/o recirculate the water
- ▶ Irrigating outdoors within 48 hours following measureable rainfall
- ▶ Restaurants serving water to customers unless requested
- ▶ Hotels to offer guests option to not have linens/towels laundered daily
- ▶ Enforcement: 1st violation = \$100, 2nd violation = \$200, 3rd violation = \$500



Water Use Requirements

- ▶ **06/15 – 02/16:** Board to compare Residential water use for the same month in 2013
- ▶ Places water supplier into 1 of 9 tiers with a Conservation Standard, ranging between 4% and 36%

Manhattan Beach →

Tier	R-GPCD Range		Suppliers In Range	Conservation Standard
	From	To		
1	Reserved		0	4%
2	0	64.99	23	8%
3	65	79.99	21	12%
4	80	94.99	42	16%
5	95	109.99	41	20%
6	110	129.99	51	24%
7	130	169.99	73	28%
8	170	214.99	66	32%
9	215	612	94	36%



How to Calculate Your Daily Water Usage



CITY OF MANHATTAN BEACH

1400 HIGHLAND AVE
 MANHATTAN BEACH, CA 90266-2941
 www.citymb.info
 Billing Inquiries: (310) 802-5559
 Refuse Service Changes (310) 830-7100

Billing Details

SERVICE PERIOD:	04/03/2014 - 06/03/2014	
WATER SERVICE FIXED CHARGE	\$	63.34
TIER 1 0-14 HCF		
14 HCF x \$4.28 =		59.92
TIER 2 15-48 HCF		
11 HCF x \$5.86 =		64.46
SEWER SERVICE FIXED CHARGE		15.56
25 HCF x \$1.27 =		31.75
TOTAL CURRENT CHARGES	\$	235.03

Water Usage = (25 HCF x 748gallons/HCF)/60 days = 312 gallons/day



Water Conservation Ordinance

May 19, 2015:

The 2009 Water Conservation Ordinance will be Revised to Meet State Emergency Water Conservation Ordinance

Ordinance Elements:

- Permanent Water Conservation Requirements
- Five Drought Stages
- Penalties



Water Conservation Ordinance

Permanent Water Conservation Requirements – Always in effect

- ▶ Landscape Waste and Irrigation
- ▶ Cleaning
- ▶ Water Features and Water Recreation Facilities
- ▶ Waste, Ponding and Leaks
- ▶ Eating and Drinking Establishments
- ▶ Hotels and Motels
- ▶ Carwashes
- ▶ Hoses



Water Conservation Ordinance

Five Drought Stages Triggered by City Council Resolution

- ▶ **Stage 1** – Irrigation 3 Days Per Week, Not more than 15 minutes, 6PM-9AM, Drip irrigation OK.
- ▶ **Stage 2** – Irrigation 2 Days Per Week
- ▶ **Stage 3** – Irrigation 1 Day Per Week (Even/Odd), No car washing
- ▶ **Stage 4** – Irrigation 1 Day Per Week (Even/Odd) only by drip irrigation, or reclaimed water; Remove home treatment systems
- ▶ **Stage 5** – Irrigation Prohibited, unless by greywater; filling pools/spas prohibited



Water Conservation Ordinance

Penalties:

- ▶ Notice of Violation allows 5 days to correct 1st violation
- ▶ 1st violation punishable by a fine of not more than **\$100**
- ▶ 2nd violation punishable by a fine of not more than **\$200**
- ▶ 3rd violation punishable by a fine of not more than **\$500**



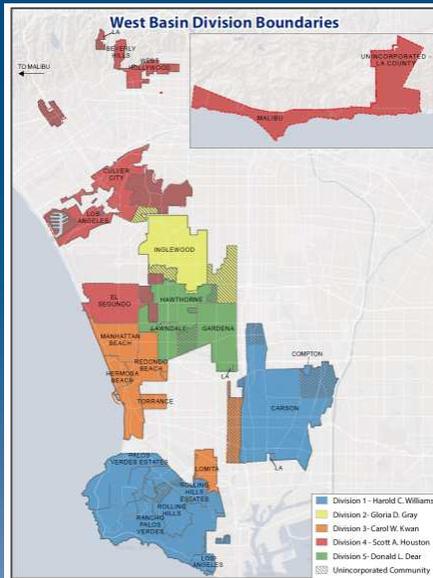
City Reporting Requirements

Submit to the Board by the 15th of each month:

- ▶ Amount of potable water produced
- ▶ Water provided by a wholesaler
- ▶ Compare amount produced in the same calendar month in 2013.
- ▶ Population served
- ▶ Percentage of residential water use
- ▶ Estimate residential gallons of water per person per day
- ▶ Number of days that outdoor irrigation is allowed
- ▶ Monthly commercial, industrial and institutional sector use
- ▶ Statistics on water conservation compliance and enforcement



- West Basin Municipal Water District is a public wholesale water agency.
- Provides imported drinking water and recycled water to:
 - 1 million people, in these 17 cities

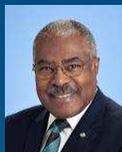


www.westbasin.org · committed to water reliability · www.westbasin.org



West Basin Leadership

FIVE ELECTED BOARD OF DIRECTORS



Division I:
Harold C. Williams
Treasurer



Division IV:
Scott Houston
Secretary



Division II:
Gloria D. Gray
President



Division V:
Donald L. Dear
Board Member



Division III:
Carol W. Kwan
Vice President



www.westbasin.org · committed to water reliability · www.westbasin.org



Water Recycling Program



FREE Water 101 Classes and Tours

- Edward C. Little Water Recycling Facility, El Segundo CA
- Built in 1995
- Has conserved 150 Billion Gallons of Drinking Water – enough water for 1 Million families for 1 year
- City of Manhattan Beach currently conserves 97M gallons of fresh drinking water per year – enough water for 600 families per year



www.westbasin.org · committed to water reliability · www.westbasin.org



Simple Tips to Conserve

Indoor

- Install a water efficient faucet aerator and turn off water when shaving or brushing your teeth. (Saves 5 gallons per day)
- Install a high-efficiency showerhead and take 5 minute showers. (Saves 5 gallons per day)
- Use only full loads in the washing machine and dishwasher. (Saves 9 gallons per day)



Outdoor

- Install a Rain Barrel (saves 50 gallons per rain episode)
- Remove water thirsty turf (saves 44 gallons per square foot per year)
- Install a 'smart' sprinkler controller in your yard. (Saves up to 47 gallons per day)
- Fix leaky faucets, plumbing, and sprinklers. (Saves up to 500 gallons per month)



www.westbasin.org · committed to water reliability · www.westbasin.org



Available Conservation Programs

- \$2 ft² Turf Removal
- Rain Barrel Program
- Free Landscape Surveys
- Free Smart Sprinkler Controllers
- Free Landscape Class

www.westbasin.org



www.westbasin.org • committed to water reliability • www.westbasin.org



Building 16 Ocean Friendly Demonstration Gardens



www.westbasin.org • committed to water reliability • www.westbasin.org



Take a Free Landscape Class...



Learn about native plants...

...Attend a Free "Hands-on-Workshop" Class...



Learn about drip irrigation...



www.westbasin.org · committed to water reliability · www.westbasin.org



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

RESIDENTIAL REBATE PROGRAM

WHY

California is facing prolonged dry conditions. Gov. Jerry Brown has declared a statewide drought and asked Californians to lower their water use by 20 percent. Your help is needed. Metropolitan has expanded its SoCal WaterSmart rebate and incentive programs to make saving water more affordable for residential customers.

WHO

Residential water customers within Metropolitan's 5,200-square-mile, six-county service area are eligible for rebates on indoor and outdoor water-saving devices and programs. Residential water customers are defined as living in single family homes or other residences with four toilets or less. Both the water service and installation address must be located within Metropolitan's service area.

Rebates are Currently Available for Water Efficiency Devices

Residential Rebate Program

SoCal WaterSmart

bewaterwise.com®

More Eligibility Information

- Refer to Metropolitan's list of qualified products for rebate eligibility.
- Rebate amounts vary by participating water agency and are subject to change without notice.
- There is a limit of one rebate application per product category per address. If you have already received a rebate through your water service provider for a qualifying device, you may not be able to apply again for the same product.
- Multifamily customers are eligible to receive clothes washer rebates through this program. These residential customers include apartments, condominiums, townhomes and mobile homes.
- Metropolitan reserves the right to verify and inspect installation of rebated devices.
- Refer to Program Terms & Conditions at so-cal-watermart.com for detailed guidelines.

WHAT Products Eligible For Rebates

Measure	Base Rebate
Indoor Fixtures	
High-Efficiency Toilets (Tank-Type)	\$50
High-Efficiency Clothes Washers	\$85
Landscaping Equipment	
Smart Irrigation Controllers	\$80/Controller for less than one acre \$25/Station for areas larger than one acre
Central Computer Irrigation Controllers	\$80/Controller for less than one acre \$25/Station for areas larger than one acre
Soil Moisture Sensor Systems	\$80/Controller for less than one acre \$25/Station for areas larger than one acre
Rain Barrels	\$75 (pending Board approval)
Rotating Nozzles for Pop-up Spray Heads	\$4/Nozzle (minimum of 15)
Turf Removal	
Removal of Irrigated Turf	\$1/square foot of irrigated turf removed and replaced with drought-tolerant plants or other approved landscape options

HOW

1. Submit an online application at so-cal-watermart.com. Funding is limited and submitting a rebate application does not guarantee you will receive a rebate. Rebates will be issued on a first-come, first-served basis until funding is exhausted.
2. Within 60 days of application confirmation, submit a copy of your water bill and an invoice or receipt that includes the brand, model and price of qualifying rebate device.

WHERE

Looking for more information? Go to so-cal-watermart.com or call 888.376.3314.



TURF REMOVAL PROGRAM




\$2 per sq. ft. rebate available for turf removal

WHY

California is facing prolonged dry conditions. Gov. Jerry Brown has declared a statewide drought and asked Californians to lower their water use by 20 percent. Your help is needed. Outdoor water use accounts for the highest percentage of regional water use. One of the most water-thirsty plants is turf grass. Replacing it with California Friendly[®], low-water use plants is a beautiful alternative now made more practical with rebates for \$1 on more per square foot of existing turf removed.

WHO

Water customers located within Metropolitan's 5,200-square-mile, six-county service area are eligible for rebates on water-saving landscape devices. Both the water service and installation address must be located within Metropolitan's service area. Customers must have existing grass in the proposed project area.

More Eligibility Information

- Rebates will be based on a first-come, first-served basis until funding is exhausted.
- Only one turf removal rebate is allowed per property.
- Synthetic turf is eligible for rebates unless prohibited by your water agency's rebate terms and conditions or local ordinances.
- Facilities using recycled water may not qualify.
- Projects cannot include replacements with live turf or turf-looking plants.
- Metropolitan reserves the right to verify and inspect removal of turf grass.
- Customers must adhere to their local and city landscape ordinances.

WHAT

Rebates require a two-step approval and application process. Notice to move forward with a project will be e-mailed within two weeks of receipt of required project pre-approval materials. Rebates will be mailed four to six weeks after final materials and documentation have been submitted and approved.

HOW

Project Start Approval

- Follow the instructions on socalwatermart.com to set up an account.
- Apply for and receive project start approval online before removing turf. Carefully estimate and measure your project area because the final rebate award cannot be adjusted, even if you remove additional square footage of turf.
- Upload five "before" photos of your project area as well as a copy of your water bill.
- When you receive project approval, the square footage and the reserved rebate amount will be specified.
- Remove turf and plant low water-use plants.
- Go to Step 2 which begins the application process.

Rebate Application Process

- Log in as "Returning Turf Applicant."
- Submit the required documentation and upload at least five color photos of your completed project area including at least one photo of each area where turf was removed. Refer to the photo guidelines section online. If the project includes synthetic turf, provide a photo or scanned copy of your synthetic turf receipt.



www.westbasin.org · committed to



WHERE

Looking for more information?
Go to socalwatermart.com
or call 888.376.3314.

THANK YOU.

Gus Meza, West Basin Municipal Water District
Sr. Water Efficiency Specialist
gusm@westbasin.org
310-660-6209



www.westbasin.org · committed to water reliability · www.westbasin.org



15



Garden / Garden



Native (Sustainable) Garden



Traditional Garden

City of Santa Monica, CA

The slide features a blue background with a wavy top edge. At the top, the text "Garden / Garden" is centered in a white, bold, sans-serif font. Below this, two side-by-side photographs are shown. The left photograph shows a house with a garden featuring various native plants and shrubs, labeled "Native (Sustainable) Garden". The right photograph shows a house with a traditional lawn and garden, labeled "Traditional Garden". In the bottom left corner, there is a small logo for "OCEAN COUNTY" and in the bottom right corner, the text "City of Santa Monica, CA" is written in a small font.



Change the Way You Garden with FREE Classes!

When: Saturdays, 10-11 am from April 11th to June 20th

Where: Manhattan Beach Botanical Garden Amphitheatre, 1236 Peck Avenue

Prior Registration: Please let us know you're coming: Leave the name of the class, your contact info, and number of people in your party.

Contact: Julie Gonella at (310) 546-1354 (leave a message) or julie@manhattanbeachbotanicalgarden.org

Participate in sustainable landscaping with these free classes:

<ul style="list-style-type: none"> * May 16th: Composting Made Easy * May 23rd: Success with Succulents 	<ul style="list-style-type: none"> * June 6th: Ask the Arborist * June 13th: Garden CPR * June 20th: Drip Irrigation Methods
---	--



View the full schedule at: www.mbbgarden.org

Information on sustainable landscaping is available on the City's Going Green website at: www.citymb.info



Questions and Answers

