## This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



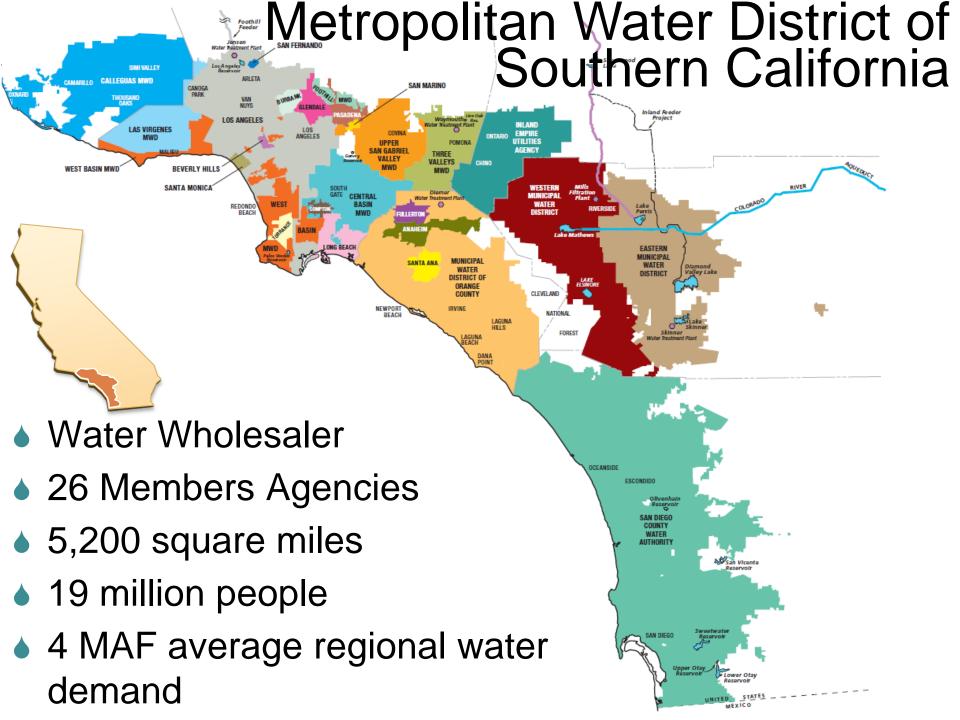
## Landscape Transformation "Millions of Lessons Learned"



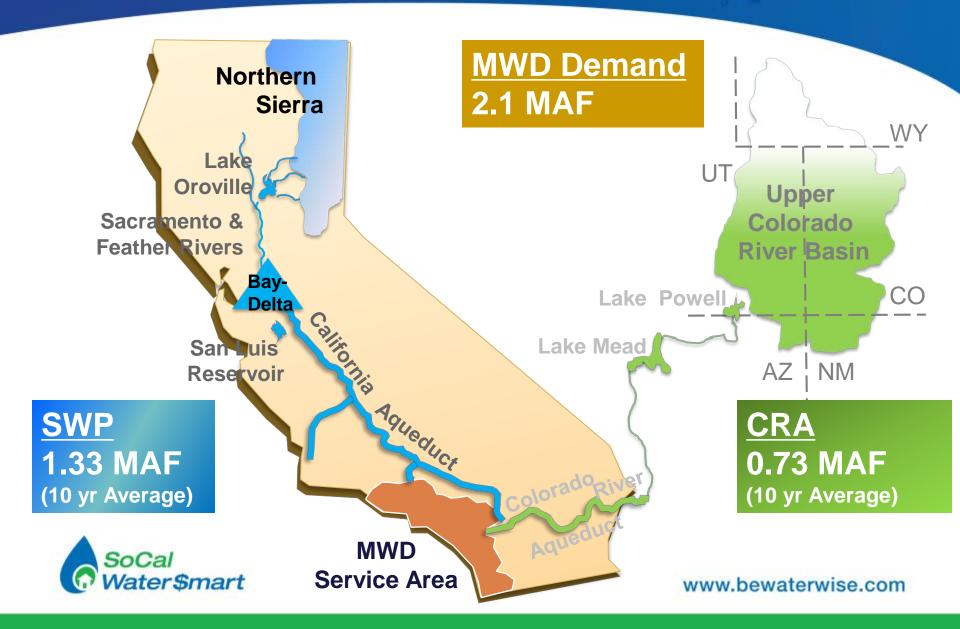
Metropolitan Water District of Southern California
Bill McDonnell



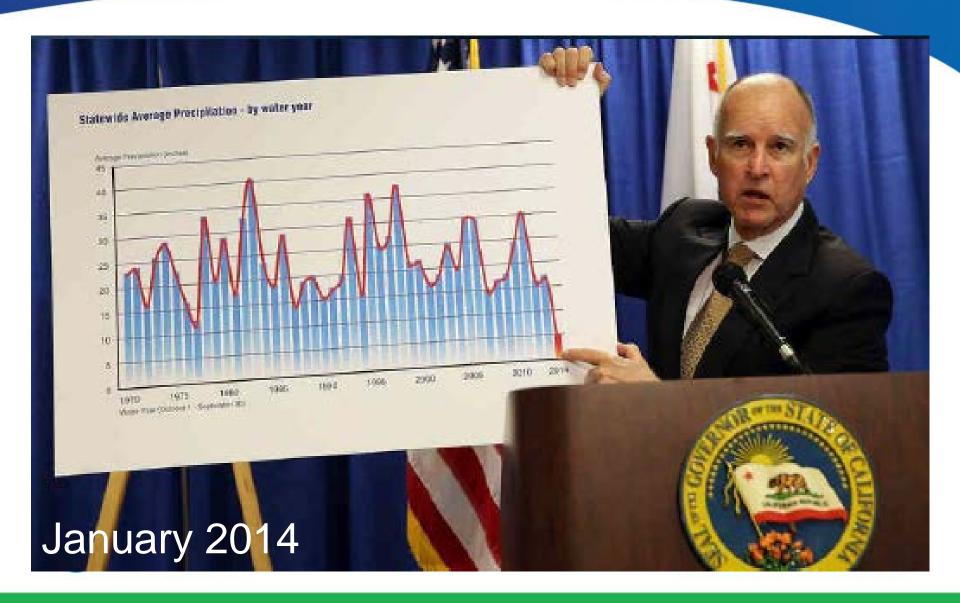
October 2016



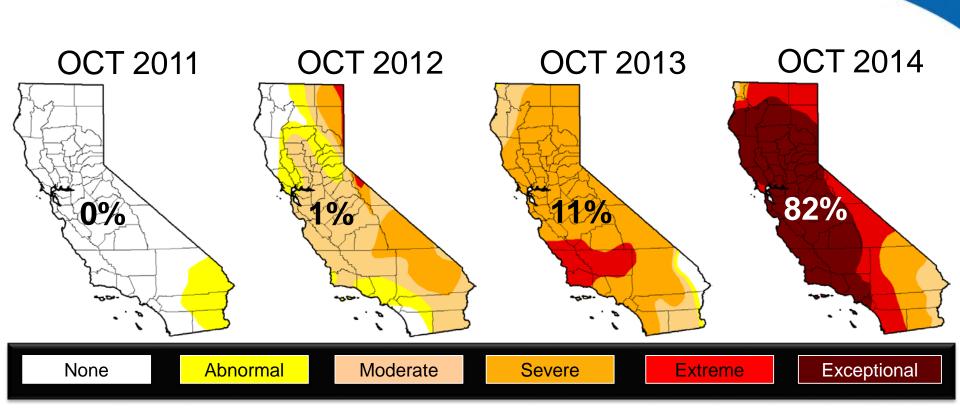
### Metropolitan Water District of Southern California



#### Governor Declares Drought Emergency



#### **Drought Conditions Leading to 2015**

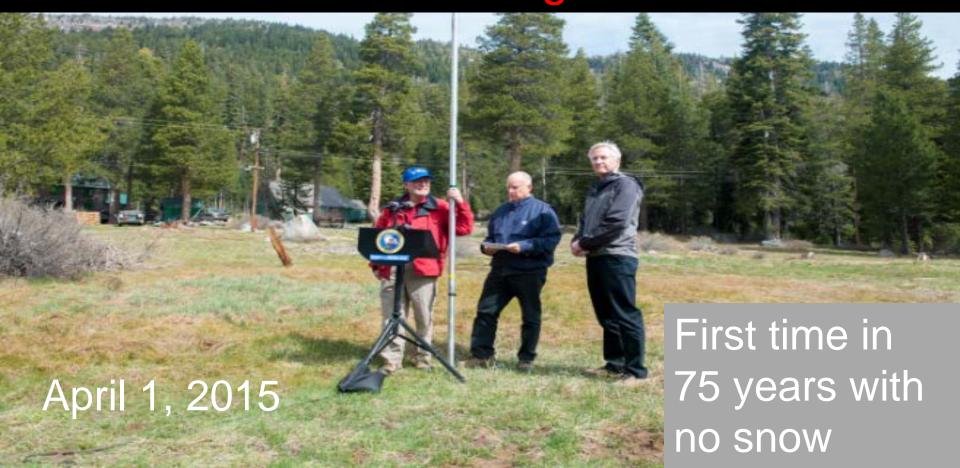


Extreme and Exceptional Intensity Percentage



#### Phillips Snow Course

Gov. Brown Issues Calls For Mandatory
25% Water Reduction With No End In Sight
For Drought



## Southland water district OKs \$350 million more for lawn-replacement rebates





Denise Hurst of Long Beach shows the drought-tolerant garden she planted with the help of a city program that offers rebates of \$3.50 per square foot for residents who tear up their water-guzzling lawns and plant drought-resistant plants. Board members of the Metropolitan Water District of Southern California voted Tuesday to add \$350 million to the district's lawn-removal rebate program. (Nick Ut / Associated Press)



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#### Southland water district ends popular lawnremoval rebate program





Ruben Hernandez removes turf to make room for a 12-foot decomposed granite pathway at the Miller Coors brewery in Irwindale. (Gary Friedman / Los Angeles Times)



# Landscaping Efficiency or Inefficiency You Can See





#### History of Turf Removal Program

- Member Agency Administered program in 2008
- Initially \$0.30/Sq. Ft.
- Board approved maintaining rebate at \$1 when grants ended in 2013.



#### Regional Turf Removal Program

- January 2014 Launched
- May 2014 Board increased rebate to \$2/Sq. Ft as important drought response.
- - Detailed site maps
  - MWD site inspections before and after
  - Rebates limited to project costs
  - ◆ Allowance for reservations over 120 days.



#### Turf Removal Program Objectives

- Accelerate the region's ability to comply with 20% water use reduction by 2020
- Increase public awareness of water efficient landscaping.
- Transform the market toward more efficient outdoor water use practices
- Act as an option for increased water savings during critical drought periods



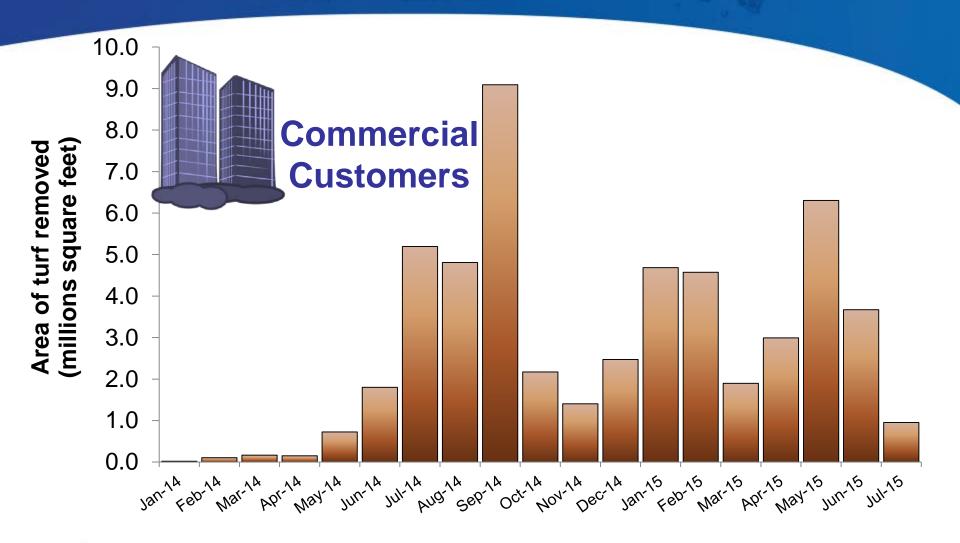
#### Residential Interest in Turf Removal





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#### Commercial Customers Also Interested





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#### **Conservation Budget**

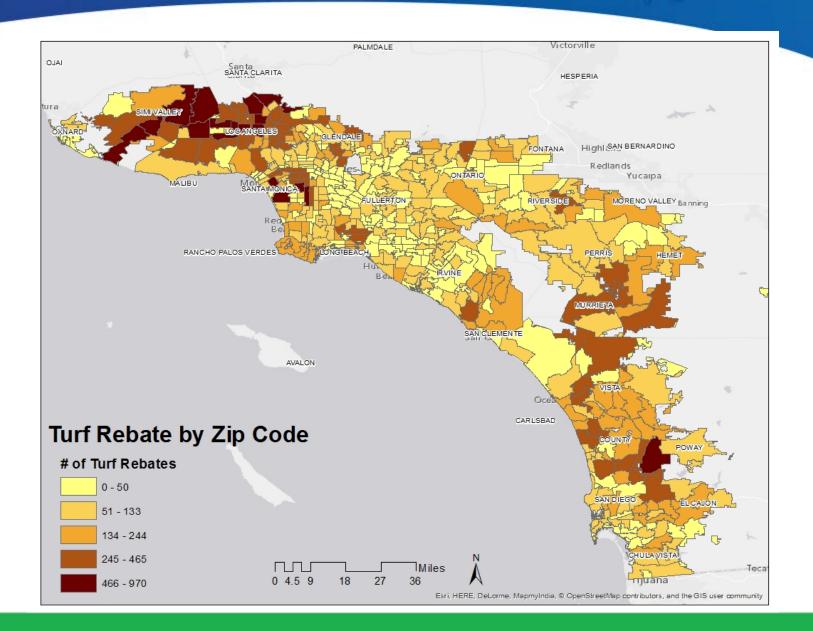
\$450M \$352M

1990-2013/14

2014/15-15/16



#### Turf Removal Distribution



#### **Challenging Circumstances**





#### Metropolitan's Member Agencies and Communities Served

Angheim	Compton	Coto De Caza	Rainbow	Valinda
Beverly Hills	Eastern Municipal Water District	Cypress	Ramona	West Covina
Burbank	French Valley	Dana Point	Rancha San Diego	West Basin Municipal Water District
Calleguas Municipal Water District	Good Hope	Emerald Bay	Rancha Santa Fe	Alondra Park
Camarillo	Hemet	Fountain Valley	San Diego	Carson
Camarillo Heights	Homeland	Garden Grove	San Marcos	Culver City
Lake Sherwood	Juniper Flats	Huntington Beach	Santee	Del Aire
Las Posas Valley	Lakeview	Irvine	Solana Beach	El Camino Village
Moorpark	Mead Valley	Laguna Beach	Spring Valley	El Segundo
	Menifee	Laguna Hills	Valley Center	Gardena
Naval Base Ventura County	Moreno Valley	Laguna Niguel	Vista	Hawthorne
Newbury Park	Murrieta	Laguna Woods	San Fernando	Hermosa Beach
Oak Park	Murrieta Hot Springs	La Habra	San Marino	Howard
Oxnard	Nuevo	Lake Forest	Santa Ana	Inglewood
Port Hueneme	North Canyon Lake	Las Flores	Santa Monica	Ladera Heights
Santa Rosa Valley	Perris	La Palma	Three Valleys Municipal Water District	Lawndale
Simi Valley	Quail Valley	Los Alamitos	Azusa	Lennox
Somis	Romoland	Midway City	Charter Oak	Lomita
Thousand Oaks	San Jacinto	Mission Viejo	Claremont	Malibu
Central Basin Municipal Water District	Sun City	Newport Beach	Covina	Manhattan Beach
Artesia	Ternecula	Orange .	Covina Hills	Marina Del Rey
Bell	Valle Vista	Placentia	Diamond Bar	Palos Verdes Estates
Beilflower	Winchester	Rancho Santa Margarita	Glendora	Rancho Palos Verdes
Bell Gardens	Foothill Municipal Water District	Rossmoor	Industry	Redondo Beach
Carson	Altadena	San Clemente	La Verne	Rolling Hills
Cerritos	La Cañada Flintridge	San Juan Capistrano	Pomona	Rolling Hills Estates
Commerce	La Crescenta	Seal Beach	Rowland Heights	Ross-Sexton
Compton	Montrose	South West Anaheim	San Dimas	San Pedro
	Fullerton	Stanton	South San Jose Hills	Topanga Canyon
Oudahy	Glendale	Tustin	Walnut	Torrance
Downey	Inland Empire Utilities Agency	Tustin Foothills	West Covina	View Park
East Los Angeles	Chino	Villa Park	Torrance	West Athens
Florence-Graham	Chino Hills	Westminster	Upper San Gabriel Valley	West Hollywood
Hawaiian Gardens	Fontana	Yorba Linda	Municipal Water District	Westmont .
Huntington Park	Montclair	Pasadena	Arcadia	Windsor Hills
La Habra Heights	Ontario	San Diego County Water Authority	Avocado Heights	Western Municipal Water District
Lakewood	Rancho Cucamonga	Alpine	Azusa	of Riverside County
La Mirada	Upland	Bonita	Baldwin Park	Canyon Lake
Lynwood	Las Virgenes Municipal Water District	Bonsall	Bassett	Corona
Maywood	Agoura	Camp Pendleton	Bradbury	Eagle Valley
Montebello	Agoura Hills	Carlsbad	Covina	Eastvale
Monterey Park	Calabasas	Chula Vista	Duarte	El Sobrante
Norwalk	Chatsworth	Del Mar	El Monte	Elsinore
Paramount	Hidden Hills	El Cajon	Glendora	Jurupa Valley
Pico Rivera	Lake Manor	Encinitas	Hacienda Heights	Lake Elsinore
Santa Fe Springs	Malibou Lake	Escondido	Industry	Lake Mathews
Signal Hill	Monte Nido	Fallbrook	Irwindale	Lee Lake
South Gate	Westlake Village	Jamul	La Puente	March Air Reserve Base
South Whittier	West Hills	Lakeside	Monravia	Murrieta
Vernon	Long Beach	La Mesa	North Whittier	Norco
	Los Angeles	Lemon Grove	Rosemead	Perris
Walnut Park	Municipal Water District	Leucadia	San Gabriel	Riverside
West Whittier-Los Nietos	of Orange County	Mount Helix	South El Monte	Rubidoux
Whittier	Aliso Viejo	National City	South Pasadena	Temecula
Willawbrook	Brea	Oceanside	South San Gabriel	Temescal Canyon
	Buena Park	Pauma Valley	Spy Glass Hill	Woodcrest

#### Water Agencies with Different Rules



#### **Different Rules**

- Synthetic Turf Yes or No
- Parkways Yes or No
- Permits Yes or No
- Plant Coverage Percent –Yes or No
- Mandatory Inspection Yes or No
- Inches of Mulch Yes or No

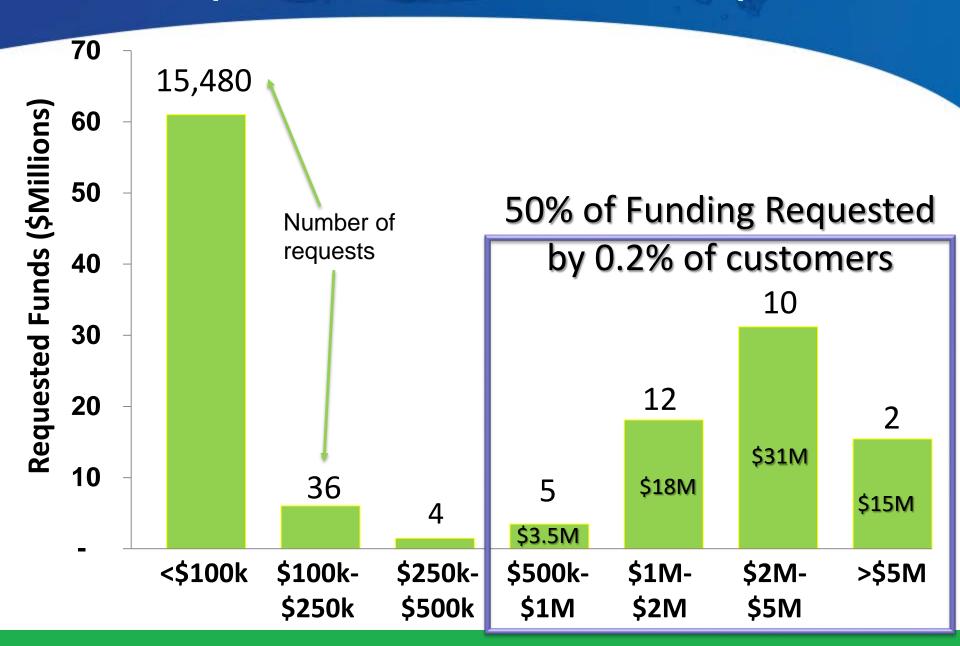


#### Water Agencies with Different Co-Funding Amounts





#### Unequal Distribution of Requests



#### Changes to the Program

Apps Before May 12, 2015

TVIGY 12

Residential \$2/sq ft

Public Agency

\$2/sq ft

Commercial

\$1/sq ft Max: \$25k Apps After May 12, 2015

\$2/sf

Max: \$6k

\$2/sq ft (<3k sf) \$1/sq ft (>3k sf)

Max: \$50k

\$1/sq ft

Max: \$25k



## 

#### Program Size

#### Hard to implement:

- Percent of plant coverage
- Design plans
- Native only
- Inches of mulch
- Pre-post inspection
- Sheet mulching





#### **Customer Size**

- Golf courses
- HOAs
- Cities
- Very visible
- Good business
- More cost effective
- Public vs private
- Media perception
- Handled separately own rules





#### **Customer Service**

- Phone system
  - Volume of calls
  - Tracking information
  - Staffing up or down
  - Training
- System for exceptions
- Changing incentive
- Program funds exhausted





#### **Time to Completion**

- Contractor left job
- Contractor back logged
- Materials not here
- Was out of the country
- Family emergency



- Didn't know had a time limit
- Vacations
- Permitting issues
- HOA Issues
- Water bill



#### **Contractor Direct**

- Original Intent
  - Help colleges
  - Increase activity
  - Trade allies

- Issues
  - Media
  - Quality
  - Activity
  - Misrepresentation
  - OOB



#### Data

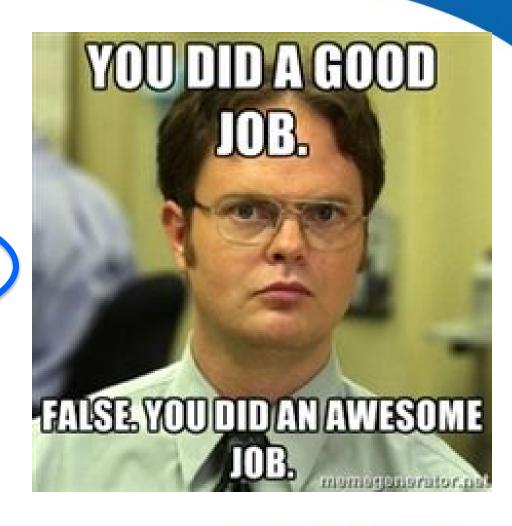
- Number of records
- Public records act
- Computer capability
- Real time data
- Cancelations
- Exceptions
- Invoices size
- ♦ W9s and 1099s
- Matching it all up





#### What Worked

- Team work
  - Collaborated
  - Creative
  - No new staff
- Vendor management
  - Online system
- Market transformation
  - Made a big splash





#### **Future**





#### **Future**







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#### MWD Incoming Call Volume September 2014 – September 2015

