

June 23, 2016

Drip Irrigation Workshop

Municipal Water District of Orange County

Presentation Content

- Who I work for
- Where our water comes from
- Drought Update
- Water Use Efficiency Programs in Orange County
- What you can do to save water



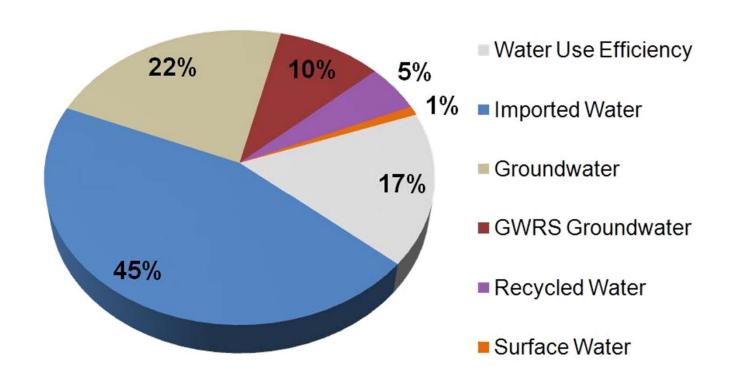


Municipal Water District of Orange County

- Wholesale supplier and regional planner to 28 city water departments and water districts
- Governed by seven-member elected board of directors
- Member agency of Metropolitan Water
 District of Southern California
- Service area: 600 square miles
- Water demand: 668,000 AFY
 - Imported supply
 - Local supplies
- Population: 2.3 million



Where Orange County Gets its Water





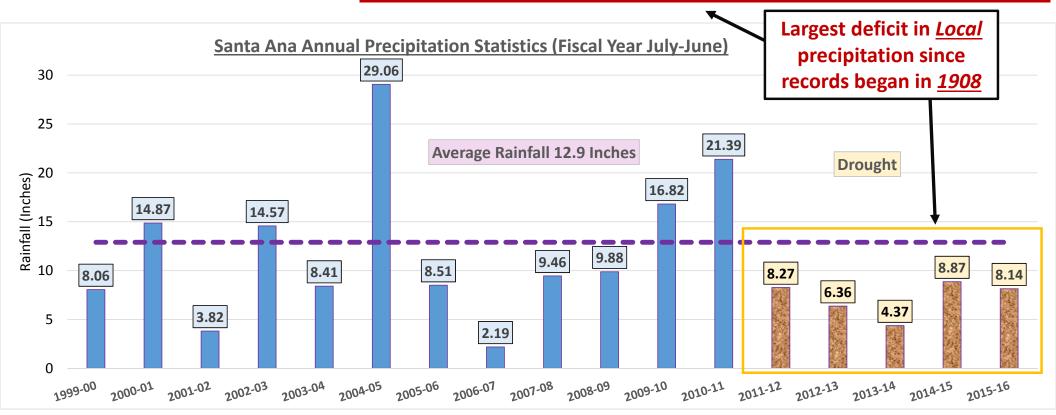
FY Annual Precipitation (Santa Ana)



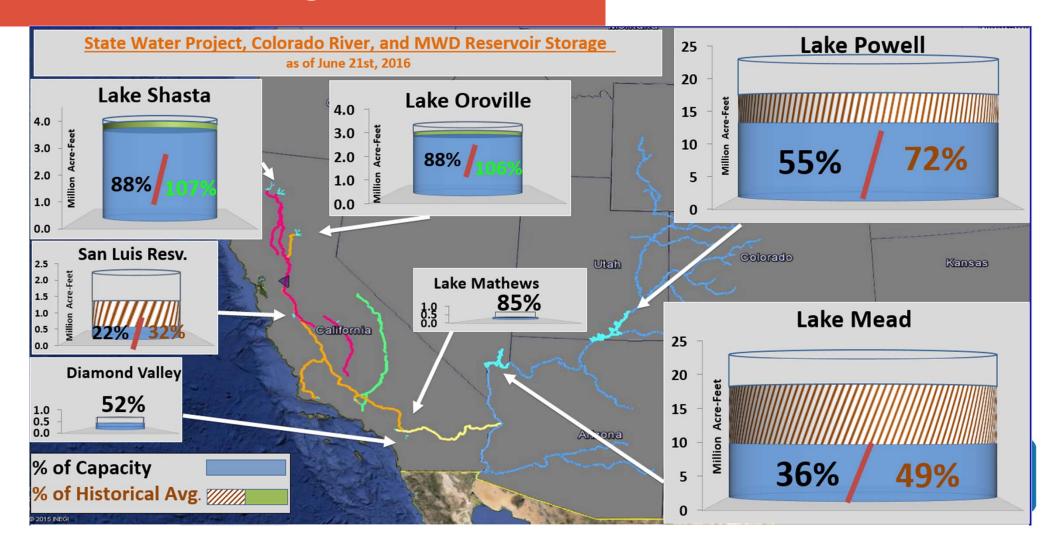
Cumulative Year-to-Date

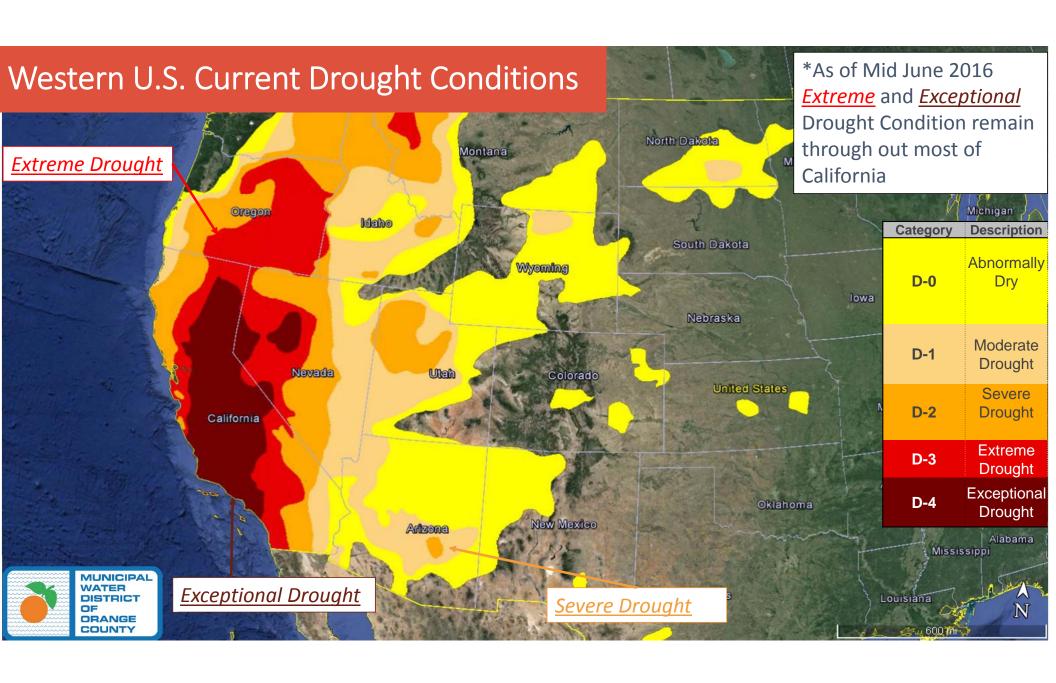
Average Rainfall to Date: 12.88"

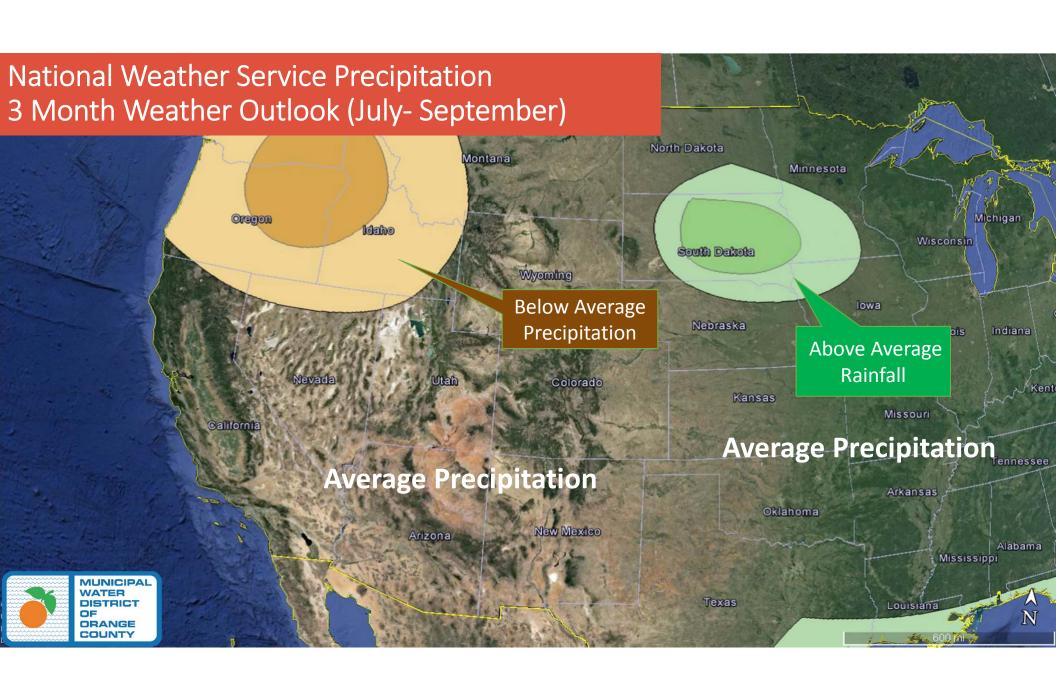
2015-16 Rainfall to Date: **8.14**" **5-Year Deficit: 28.47" (2011-12 to Present)**

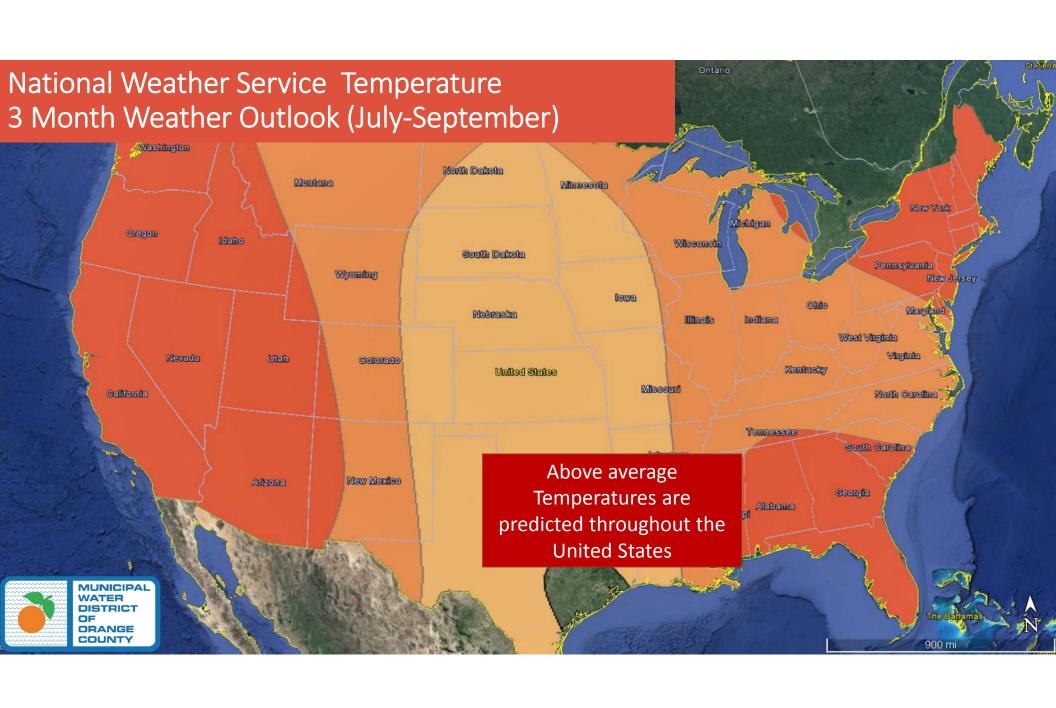


Reservoir Storage









Executive Order B-29-15

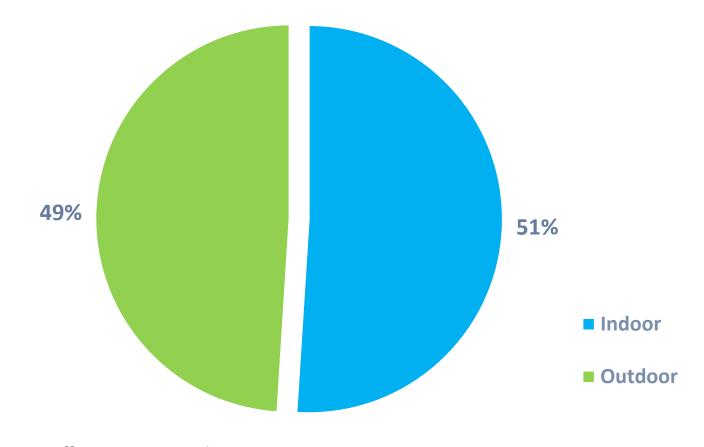
To prevent waste and unreasonable use, the following uses of water is prohibited

- Irrigation runoff
- Irrigation during and within 48 hours of measureable rainfall
- Irrigation of turf in street medians
- Washing of hardscape
- Washing of automobiles without positive shutoff hose nozzle
- Non-recirculating fountains
- Serving drinking water in restaurants (only upon request)
- Hotel guests must have the option of laundry service



Saving Water In Orange County

Indoor and Outdoor Water Use in OC



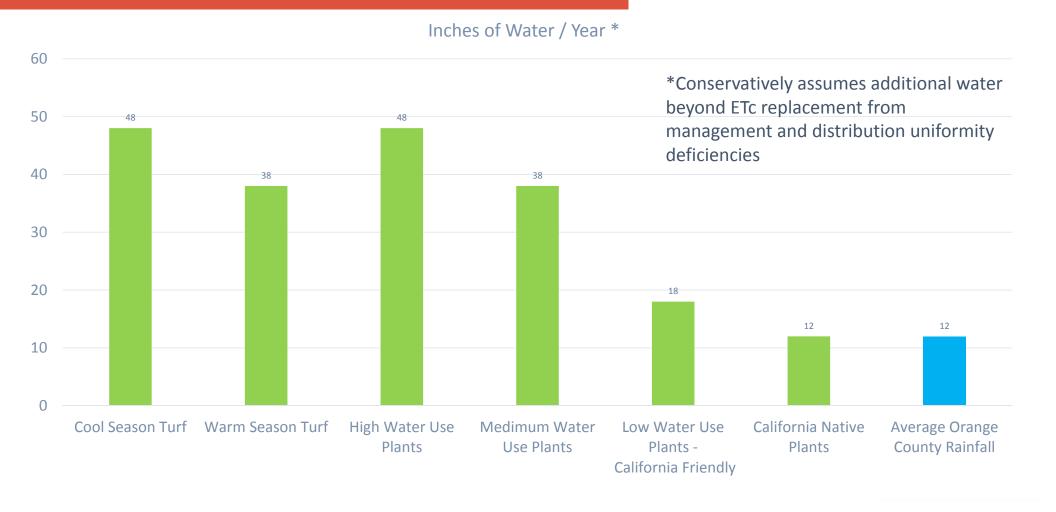
Source: OC Water Use Efficiency Master Plan, 2013



The Solution



Comparison of Plant Water Needs



Rebates & Incentives

Give your plants the right amount of water — no more, no less.



SOIL MOISTURE SENSOR CONTROLLERS take the guesswork out of watering by monitoring your soil moisture and telling your sprinkler system how long to water your plants. This device can reduce outdoor water waste by up to 70% while keeping your plants healthy and attractive.

Rebate level: Up to \$380 per controller for properties <1 acre, or \$25 per station for properties >1 acre.

RAIM BARRELS capture the rainwater that falls onto your property and reuse it to water your plants. Rain barrels can also reduce ocean water pollution by preventing rainwater from carrying fertilizers, pet waste, and harmful debris from your property out into the ocean.

Rebate level: \$75 per barrel (50-gallons or larger)











Smart Timer Rebate Program



Receive money back when you upgrade to "smart" rechnology that fully automates landscape watering, based on the weather and water needs of your plants.

- Provides rebate incentives to install automated self-adjusting, weather-based or soil-moisture-sensor based controllers
- Residential Smart Timer/Soil Moisture Sensor System Rebate Levels:
 - \$80 per Smart Timer installed
- Commercial Smart Timer/Central Computer Irrigation Controller/Soil Moisture Sensor System Rebate Levels:
 - \$35/station based on clock capacity



Rotating Nozzle Rebate Program



- Distribution uniformity improvement incentive
- Rotating Nozzles for pop-up spray heads at residential and commercial sites
 - **In Selection 1 Rebate per nozzle** = \$2.00 − Minimum 30 nozzles per site
- Large Rotary Nozzles for commercial sites
 - **IDENTIFY Rebate per set** = \$13.00 Minimum 8 sets per site
- In-Stem Flow Regulators



Turf Removal Rebate Program



- Turf removal and replacement with California Friendly plants and permeable surfaces
- Accepting applications on a Wait List basis
 - **TY 16-17 rebate amounts and caps to be determined**
- Requires mandatory pre- and post-construction inspections



Rain Barrel Rebate Program

- Encourage the use of rain as a water source
- Gateway product, visual prompt, reaches all ages
 - Capture rainwater instead of letting it run off the property into storm drain
- Rebate amount: \$75 per rain barrel
 - Minimum 50 gallons per barrel
 - Up to four barrels per residential site
 - Possible changes to rebate amounts and quantities in July/August
- Rebate amount: \$200 per Cistern
 - Over 200 gallons

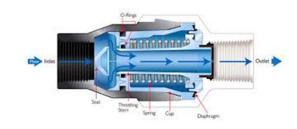




Spray to Drip Rebate Program

- Pilot program to replace spray irrigation with embedded emitter drip irrigation
- Available for both residential <u>and</u> commercial properties
- Eligibility requires installation of approved pressure regulation and filters
 - See Eligible Products List for equipment allowed under the program
- Currently accepting applications on a wait list basis. Program expected to relaunch in mid-July/early-August









Spray to Drip Rebate Program



- Participation Process
 - Submit an online application, including water bill, photos of spray irrigation in use, and simple site plan.
 - Wait for Project Approval Notice before starting conversion.
 - Projects already in progress or completed prior to receipt of Approval Notice will not be eligible to participate.
 - Once approved, applicants have 60 days to complete the project.
 - Upon completion, submit the online Project Completion Form, including photos of conversion area and purchase receipts for equipment.
 - Ontractor invoices must include price, SKU/model numbers, manufacturer, and quantities of the rebate-eligible products purchased. Labor is not eligible for a rebate and, if included on invoice, must be listed as a separate line item.
 - MANDATORY post-inspection will be scheduled to verify the square footage and equipment installed.



Spray to Drip Rebate Program

- Rebate amount in Orange County
 - Commercial properties
 - \$0.20 per square foot of conversion area



- Single-family Residential properties
 - \$175 per drip "kit" (minimum of 1 pressure regulator/filter and 200 linear feet of tubing)
 - For each kit, a minimum of 250 square feet of irrigated area must be converted to drip irrigation.
 - For example, if installing one kit, the converted area must be a minimum of 250 square feet. If installing two kits, the minimum converted area must be 500 square feet. For three kits, the minimum converted area must be 750 square feet.
 - Maximum of 3 "kits" per site based on square footage of conversion area



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