

Water Supply Update and Water Use Efficiency Programs in Orange County

July 31, 2014

Get Ahead or Get Parched: Six Ways to Survive the Drought

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Water Use Efficiency Programs Manager



Water Supply Agencies

- **Metropolitan Water District of Southern California (MET)**
 - Serves six counties: Ventura, Los Angeles, San Bernardino, Riverside, San Diego, Orange County
- **Municipal Water District of Orange County (MWDOC)**
 - MET member agency
 - Purchases imported water from Northern California & Colorado River
- **Orange County Water District (OCWD)**
 - Manages groundwater basin
- **32 Retail Water Providers throughout OC**

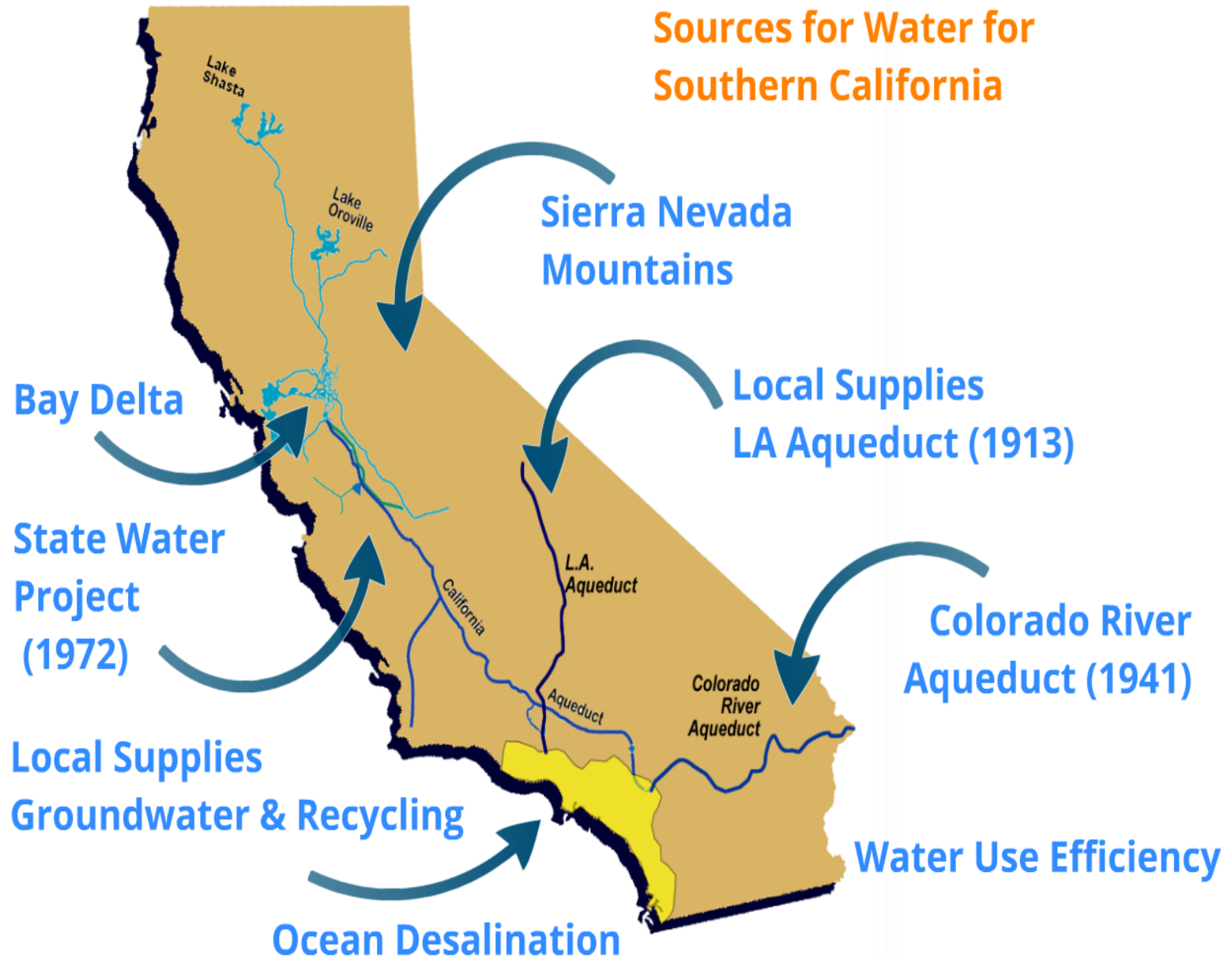


Municipal Water District of Orange County

- Wholesale water supplier and regional planning agency serving 28 cities and water districts
- Regional water use efficiency, education, public affairs, and emergency response programs
- Governed by seven-member elected board of directors
- 3rd largest member agency of Metropolitan Water District of Southern California
- Service area: 600 square miles
- Population: 2.2 million
- OCWD: groundwater basin management agency



Sources for Water for Southern California



What are water agencies doing?

- On January 17th the Governor declared a drought emergency calling for a 20% reduction in water use
- In February both Metropolitan and the Municipal Water District of Orange County adopted a Stage 1 alert calling for a 20% reduction in water use
- On July 15, the State Water Resources Control Board adopted Emergency Regulations to increase conservation:
 - No irrigation runoff
 - No car washing without a positive shutoff hose nozzle
 - No hosing of driveways, etc.
 - No non-recirculating fountains or decorative water features
 - By August 1st, water agencies must adopt landscape watering restrictions
- Enforcement will be progressive starting notices
- Go to retail water agency websites for specific restrictions



REBATES & INCENTIVES



Protect the environment with new water-saving devices.

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.

RAIN 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)

REBATES OFTEN COVER MOST OF THE DEVICE COST

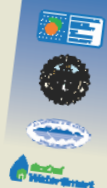


Last chance to get your toilet rebate!

Upgrade your old toilets with **HIGH EFFICIENCY TOILETS** that use just 1.28 gallons or less per flush. High efficiency toilets save an average of 38 gallons of water per month while achieving high performance standards.

■ **Rebate level:** **\$0** (or more) per toilet

Visit mwdoc.com/rebates or call (888) 376-3314 for more information.



Take Control of Your Sprinkler System

WEATHER-BASED IRRIGATION CONTROLLER REBATE PROGRAM: Take control of your sprinkler system by installing a weather-based irrigation controller. These controllers use information about your plants, soil, and weather conditions to give your landscape the right amount of water. **Current Rebate Level: Single-Family Residences: Up to \$425 per station (up to timer capacity); Multi-family Residents and Businesses: \$25 per station (up to timer capacity)**

ROTATING NOZZLE REBATE PROGRAM: Reduce water runoff and overspray by replacing your sprinkler heads with water-efficient rotating nozzles. Rotating nozzles water more evenly and uniformly, and reduce your outdoor water consumption by up to 30%. **Current Rebate Level: \$4 per nozzle.**



For more information: mwdoc.com/services/smart-irrigation





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

Smart Timer Rebate Program

- **Provides rebate incentives to install automated self-adjusting weather based or soil moisture sensor based controllers**
- **Residential Smart Timer Rebate Levels:**
 - **Up to \$500 per Smart Timer installed**
 - **\$380 for Smart Timer**
 - **\$120 for installation**
- **Commercial Smart Timer Rebate Levels:**
 - **\$35/station based on clock capacity**





Rotating Nozzle Rebate Program

- Distribution Uniformity Improvement Incentive
- Replacement nozzle for spray heads
- Save 6,600 gallons per nozzle over 5 years
- **Rebate per nozzle = minimum \$4**
 - depending on retail water agency
- 15 nozzle minimum per site for common areas (commercial)



Turf Removal Rebate Program



- Turf removal with replacement by California Friendly plants and permeable surfaces
- **Rebate amount in Orange County**
 - **\$2.00 per square foot**
- Water savings are estimated at 44 gallons per square foot per year



Rain Barrels

- Encourage the perspective that rain is 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 site**



Toilet and Clothes Washer Rebates

- **High Efficiency Toilets**
 - **Performance Tested (1.28 gallons /flush)**
 - **\$100 Rebate / Toilet**
 - Commercial, Multi-Family, Single-Family
- **Ultra High Efficiency Toilets**
 - **Performance Tested (1.06 gallons / flush)**
 - **\$145 Rebate / Toilet**
 - Multi-Family In-Unit Only (as a bulk retrofit)
- **High Efficiency Clothes Washer**
 - **Water Factor of 4.0 or Less**
 - **\$85 Rebate / Washer**
 - Multi-Family In-Unit and Single-Family



Where to Go

- For more information or to apply for rebates, go to:

www.ocwatersmart.com



INFORMATION TOOLS & EDUCATIONAL OUTREACH



Landscape Surveys and Classes

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



Landscape Irrigation Survey

For Commercial, Industrial, Institutional and Common Area Landscapes



Using more water than you should? Find out with a landscape irrigation survey.

HOW IT WORKS

A certified landscape irrigation auditor will survey and provide written recommendations for qualifying non-residential properties within Metropolitan's 5,200 square-mile service area at no cost. To participate, properties must have a minimum of one acre of irrigated land. Eligible landscapes include commercial and industrial sites, homeowner association common areas, and institutional sites like schools, parks and government facilities.

Surveys are scheduled on a first-come, first-served basis. To request a survey, please complete the online application at bewaterwise.com. Funding is limited and submitting an application does not guarantee a survey will be provided.

CONTACT

Deniece Cotton
Metropolitan Water District of Southern California
(213) 217-6616
dcotton@mwah2o.com

bewaterwise.com

WHAT TO EXPECT

The property owner, manager or authorized representative with access to the irrigation controllers must be present during the survey. The certified landscape irrigation auditor will conduct a comprehensive review of the irrigation system including:


- System pressure
- Controllers
- Site conditions and irrigation scheduling
- Issues that cause higher water use, such as valve malfunctions, high or low pressure, sprinkler misalignment, poor drainage, breaks and leaks, runoff, etc.

Participants will receive a written report that includes:

- Data collected during the survey
- Recommendations for improving the site's irrigation efficiency including system repairs, equipment updates, and irrigation scheduling
- Information about available financial incentives to help with the cost of recommended improvements


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



bewaterwise.com

This class is geared for residential customers and provided at no cost.

To learn more go to: bewaterwise.com





Water Smart Landscape Program

- A Free Program that establishes Landscape Irrigation Budgets for dedicated landscape meters
- Provides customized monthly irrigation performance reports to property owners, property managers and landscape contractors
- Serves all of Orange County
 - Julio Sanchez, ConserVision Consulting
 - (949) 215-2168
 - Contractor for MWDOC




Irrigation Performance Report

MWDOC Data for Vista Norte - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail News RSS Feeds

Address <http://www.waterbudgets.com/ConserVision/MWDOC-SQL/Homeowner.asp> Go Links >>



VISTA NORTE METERS

- 001377943
- 001377982
- 001379585
- 001381544
- 001381913
- 001406281
- 001417877
- 001440610
- 001457689
- 01377926A
- 041788133
- 041788137
- 044967365
- 044967395
- 048315885
- 052096002
- 052096005

Account: 305035
Meter: 001457689
Site Name: Vista Norte
Agency: Santa Margarita WD
Landscaper: W. B. Starr, Inc.
Property Mgr.: Merit Property Mgmt. Inc.
HOA: Vista Norte
Waste Hauler: Not Available

Area: 30,492
% Turf: 3%
MeterType: Dedicated
Microclimate: Foothill
Grasscycling: No
Mulch: Yes
Divert/Recycle: Yes
Controller Type: Real Time

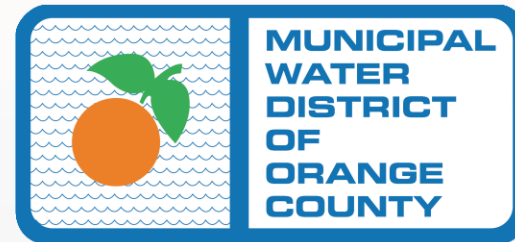
Hold mouse over column headings for definitions. [CLICK HERE](#) for printer-friendly page.

Date Range Change Date Range	Current Use (ccf)	Rain (ccf)	Site Budget (ccf)	Over or Under Budget (%)	Over or Under Budget (ccf)	Cost (\$)	Over or Under Cost (\$)
4/11/02 - 5/13/02	94	0	80	17%	14	163.56	24.36
5/14/02 - 6/12/02	94	0	81	16%	13	163.56	22.62
6/13/02 - 7/12/02	100	0	101	-1%	-1	174.00	-1.74
7/13/02 - 8/13/02	81	0	109	-26%	-28	140.94	-48.72
8/14/02 - 9/10/02	72	0	78	-8%	-6	125.28	-10.44
9/11/02 - 10/9/02	68	0	74	-8%	-6	118.32	-10.44
10/10/02 - 11/12/02	31	2	40	-23%	-9	53.94	-15.66
11/13/02 - 12/10/02	27	0	46	-41%	-19	46.98	-33.06
12/11/02 - 1/10/03	6	1	37	-84%	-31	10.44	-53.94
1/11/03 - 2/12/03	24	1.62	52	-54%	-28	41.76	-48.72
2/13/03 - 3/12/03	6	3.63	39	-85%	-33	10.44	-57.42
3/13/03 - 4/9/03	37	3.35	68	-46%	-31	64.38	-53.94
4/10/03 - 5/13/03	38	2.94	69	-45%	-31	66.12	-53.94
Totals for selected date range:						-196	-341.04

HOME DATA SERVED YOUR WAY VIEW BY SITE BAR GRAPH HELP

Internet

Program Funding Provided By:



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



Questions?

Contact: Joe Berg
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Municipal Water District of Orange County
714-593-5008
jberg@mwdoc.com



Get Ahead or Get Parched Workshop: Six Ways to Survive the Drought

Local Supply and Drought Update
Irvine Ranch Water District
July 31, 2014



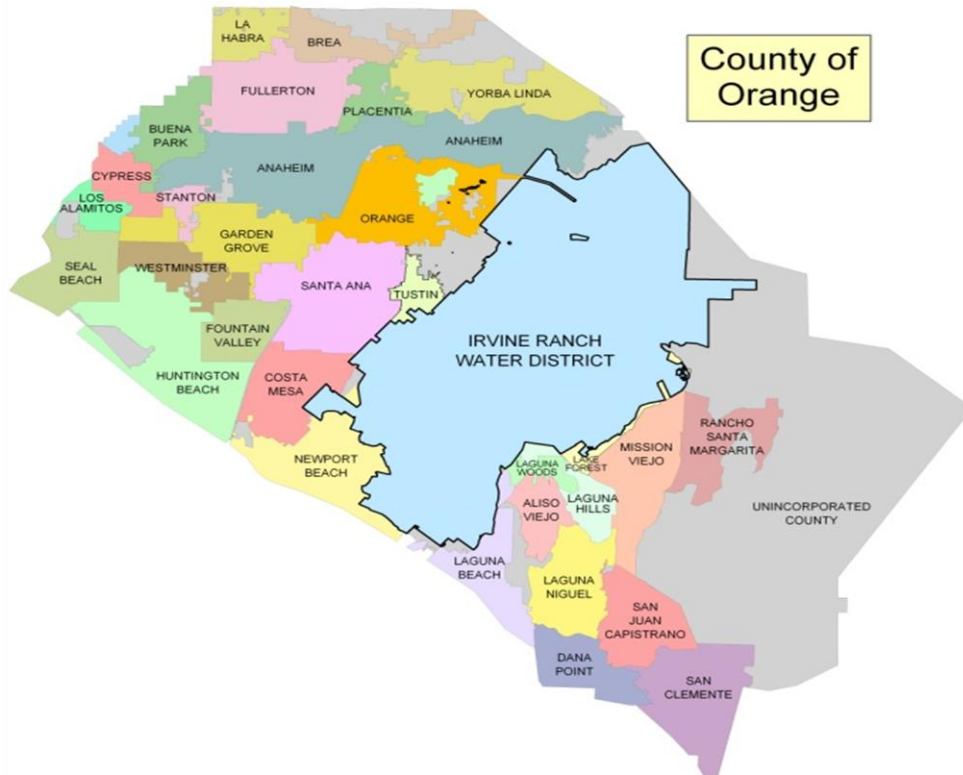
Irvine Ranch Water District



A California Special District Serving Central Orange County

Reliable High-Quality Water & Sewer Service.
Efficient. Cost Effective. Environmentally Sensitive.
High Level of Customer Satisfaction.

IRWD Service Area



340,000

Residential Customers

500,000

District Daytime Population

181 Square Miles

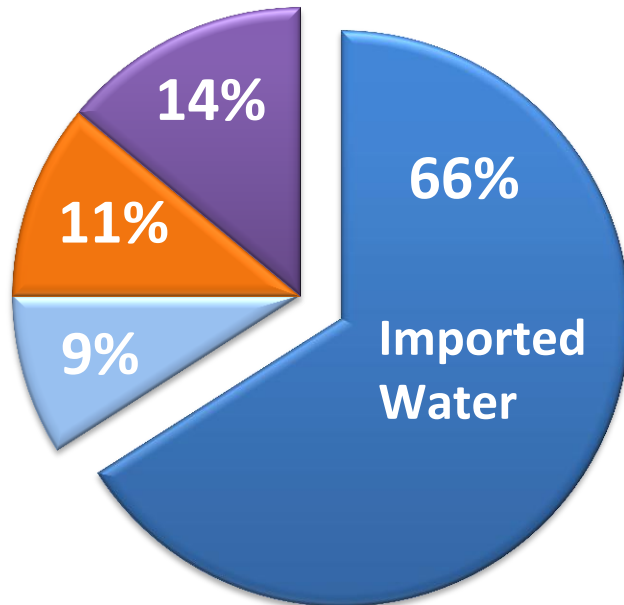
20% of Orange County

6 Cities

Irvine, Tustin, Lake Forest,
Orange, Newport Beach,
Costa Mesa, unincorporated county

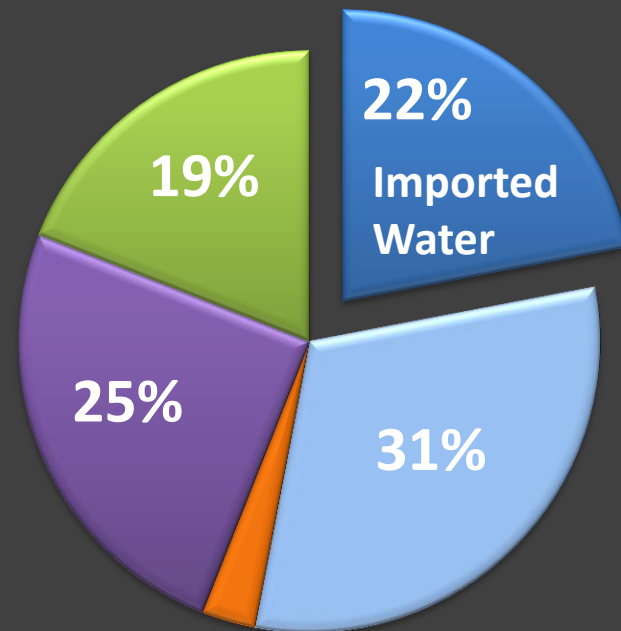
IRWD Water Supply Portfolio. Then and Now.

1990



- Imported Water
- Clear Groundwater
- Local Surface Water
- Recycled Water

2013



- Imported Water
- Clear Groundwater
- Local Surface Water
- Recycled Water
- Treated Groundwater

California Drought: A Statewide Issue

Worst Drought in State History

Three Straight Dry Winters

2013- Driest Year on Record

Record Breaking Heat in 2014

Water Storage Levels Dropping

Saving Water is Urgent



Emergency Drought Restrictions

- Emergency Drought Restrictions take effect on August 1
- Prohibit Certain Outdoor Water Use
- Requires Water Agencies to Implement Outdoor Water Use Restrictions
- Applies to Potable Water Only



Everyone: Mandatory Water Use Prohibitions

- Washing down driveways and sidewalks with potable water.
- Causing runoff as a result of excess outdoor watering.
- Using a hose to wash a motor vehicle, unless the hose is fitted with a shutoff nozzle.
- Using potable water in a fountain or decorative water feature, unless the water is recirculated.



Drought Regulations: Water Agency Requirements

- Implement Water Shortage Contingency Plan (WSCP) at level that imposes mandatory outdoor restrictions;

OR

- Submit and have approved - a plan showing water savings achieved with Allocation-Based Tiered Rate Structure.

Which Option will IRWD Implement?

IRWD will Implement
Option 2.

Allocation-based conservation
rate structure achieves
excellent water saving results.

Water allocation or budget
that rewards conservation and
sends a strong price signal for
wasteful use.



Outdoor Water Use Allocation

- All outdoor use allocated using same formula. Based on:
 - Weather Conditions (ET)
 - Site Acreage
 - Plant type (warm-season turf)
 - Irrigation Efficiency
 - Allocation varies each billing cycle



IRWD Potable Water Landscape Rates

Tier	% of allocation	Rate/CCF
Low Volume Base Rate	0 – 40% 41 – 100%	\$ 0.88 \$ 1.34
Inefficient	101 – 110%	\$ 3.91
Excessive	111 – 120%	\$ 6.22
Wasteful	121 + %	\$12.60

100% of
landscape
water need

Monthly Water Use Comparison

Customer Uses Allocation - 60 CCF

Customer Over Allocation - 80 CCF

Water Cost = \$ 69.36

Water Cost = \$230.94

Drought Regulation Implementation: IRWD Summary

- Mandatory bans on wasteful use and runoff are always in effect
- Drought regulations:
 - Applies to Potable Water
 - Uses the Allocation-Based Rate Structure
 - Alternative approach to enforcement
 - Coordinating with cities served

Visit us on the Web: www.irwd.com

Email: calscape@irwd.com

Phone: 949-453-5581

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