



MWD OC's Current and Future Water Use Efficiency Efforts

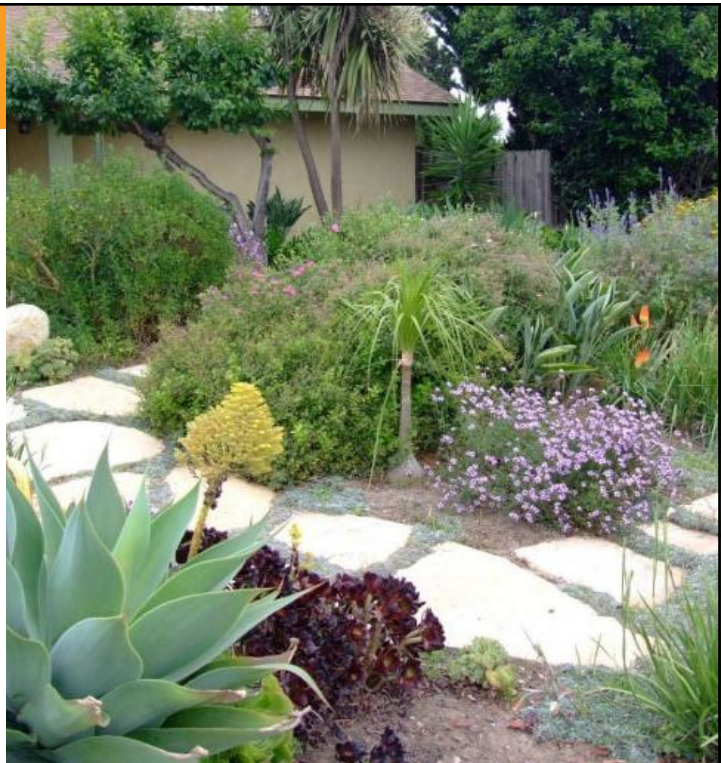


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Municipal Water District of Orange County

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Discussion Topics

- 1 Why Water Use Efficiency?
- 2 Current Water Use Efficiency Efforts
- 3 Water Use Efficiency -2 Years Out-
- 4 Water Use Efficiency - 5 to 10 Years Out-



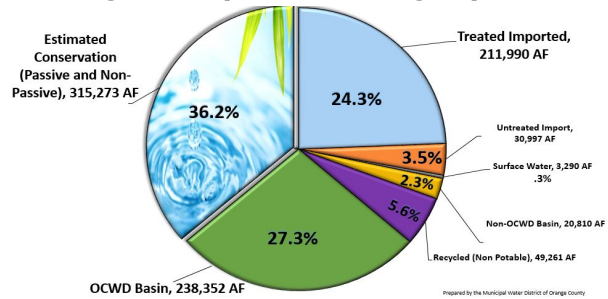
Why Water Use Efficiency?

- 1 **MWDOC's Mission**
 - Our mission is to provide...and to promote water use efficiency for all of Orange County.
- 2 **Still the Least Expensive Water Alternative**
- 3 **Support Retail Water Agencies in their Efforts to Comply with State Mandates**
 - County-Wide Implementation of Programs
 - Metropolitan Resources
 - Grant Funding
- 4 **MWDOC Visibility in the Community**
 - Promotes All of MWDOC's Efforts
- 5 **Conservation Ethic**
 - Promotes the Sustainability of Southern Calif.

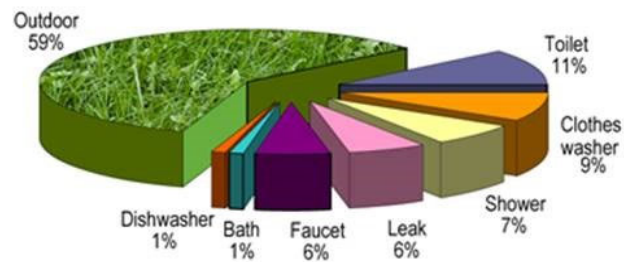


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Orange County 2017-18 Usage by Source



Residential Average Water Use



Source: American Water Works Association Research Foundation, End Uses of Water

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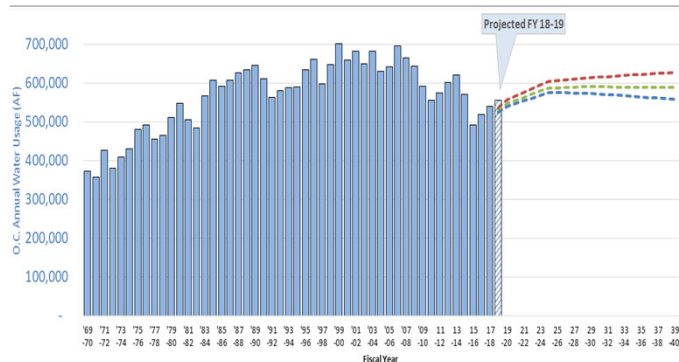
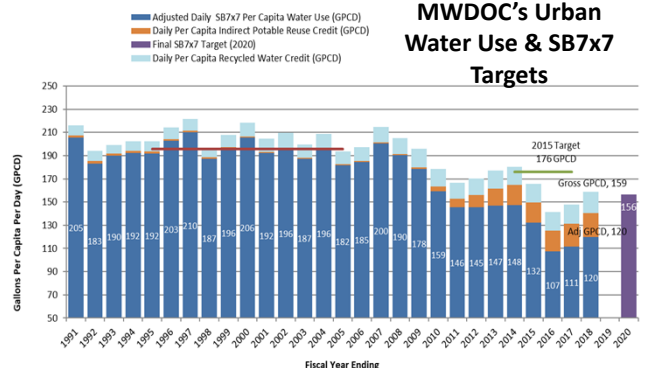
Why Water Use Efficiency? (cont.)

- 6 **Long-Term Commitment to Supply Reliability**
 - MET's IRP
 - WUE Master Plan
 - Urban Water Management Plan
 - Long-Term Planning
 - Emergency Response
- 7 **State Mandate Compliance**
 - SB7x7-Water Conservation Act of 2009
 - AB 1668 and SB 606
- 8 **Reliability Study**
 - Long-Term Supply and Demand Forecasting
 - Demand Projection Scenarios



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MWDOC's Urban Water Use & SB7x7 Targets



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Water Use Efficiency Today

- 1 Water Use Efficiency Staff
 - Five FTEs
 - Three Interns
 - Current Staffing Plan Calls for No Increase
 - Excluding Water Loss Control

- 2 Water Use Efficiency Expenditures

Latest Five Year Totals	
WUE Budget, Staffing, and Programs - Choice	\$4,220,000*
Rebates Paid to Orange County Rate Payers	\$54,700,000*
Grant Acquisition Funds for Programs	\$4,303,000



*Over the last 5-years MWD OC Agencies have realized a 13 to 1 benefit



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WUE Interns



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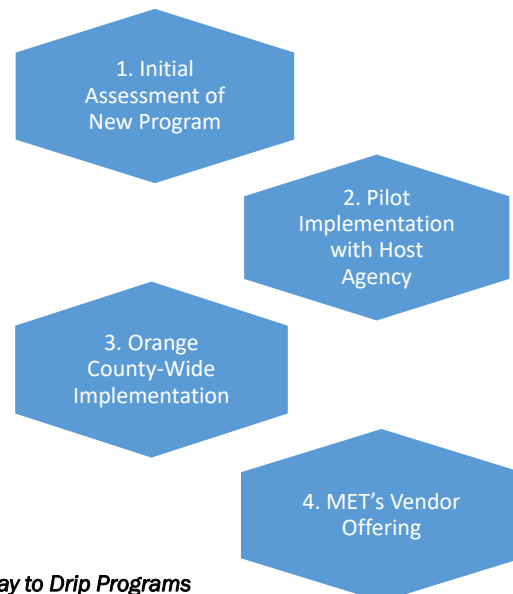
Water Use Efficiency Today (cont.)

- 3 MWD OC's New Program Evolution
 - Initial Assessment of New Water Savings Opportunity
 - Proof of Concept
 - Quantify Water Savings
 - Pilot Implementation – Small Scale
 - Refine Implementation
 - Re-evaluate Water Savings
 - Results to MET's PAC for Further Development
 - Program Funded by MET and/or Grants
 - County-Wide Implementation
 - Quantitative and Qualitative Evaluation for Refined Water Savings and Program Implementation
 - MET's PAC Accepts Quantitative Water Savings
 - Program Funded by MET and/or Grants
 - Program Shifted to MET and Offered Region-Wide
 - Implementation Through MET's Vendor



Examples Include Smart Timers, Turf Removal, and Spray to Drip Programs

Typical Program Evolution



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Water Use Efficiency Today (cont.)

4 Implementation Programs for Residential, CII & Public Agency

Rebate Opportunities

	Residential (SF + MF)	Commercial, Industrial, Institutional CII	Public Agency
Indoor	<ul style="list-style-type: none"> High Efficiency Toilets, Clothes Washers 	<ul style="list-style-type: none"> Water Savings/Incentive Program, High Efficiency Toilets Cooling Towers Waterless Urinals Ice Machines 	<ul style="list-style-type: none"> Water Loss Control and Leak Detection
Outdoor	<ul style="list-style-type: none"> Smart Timers Turf Removal Spray to Drip Landscape Design Rain Barrels 	<ul style="list-style-type: none"> Smart Timers Turf Removal Spray to Drip Landscape Design Large Rotary Nozzles 	<ul style="list-style-type: none"> Smart Timer Turf Removal Spray to Drip Landscape Design Recycled Water

Education and Public Outreach

Qualified Water Efficient Landscapes (QWEL), H2O for HOAs, Community Events, California Friendly Landscape Training (CFLT), Turf Removal Training



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Water Use Efficiency Today (cont.)

- 5 Service to Our Member Agencies
 - Member Agency Staff Support
 - Program Implementation and Funding Acquisition
 - Regional Representation
- 6 Metropolitan Leadership
 - Project Advisory Committees (PAC)
 - MWDOC Rep at Water Use Efficiency Meetings
 - Steer the Future of Water Use Efficiency in S. Calif.
- 7 Drought Preparedness
 - Water Shortage Contingency Plans
 - Outreach
- 8 Memberships in Organization
 - California Water Efficiency Partnership, CalWEP
 - Alliance for Water Efficiency, AWE
 - American Water Works Association, AWWA
 - Association of California Water Agencies, ACWA
 - Calif. Landscape Contractors Association, CLCA
 - Association of California Cities - Orange County, ACC-OC



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Water Use Efficiency 2 -Years Out

- 1 Implement Programs Involving all Sectors will Continue to be a Core Task
 - Making Water Conservation a California Way of Life
 - Demand Hardening of Water Savings
- 2 What Will Implementation Programs Look Like?
 - Standardized Rebates
 - Water Use Efficiency Education Programs (Outdoor/Landscape)
 - Public Outreach/Social Media
 - Enhanced Target Marketing
 - Automated Meters
 - Pressure Regulated Valves
 - Landscape Design Assistance
 - Water Loss Control
 - Disadvantage Communities (DAC)
 - New Technology Research

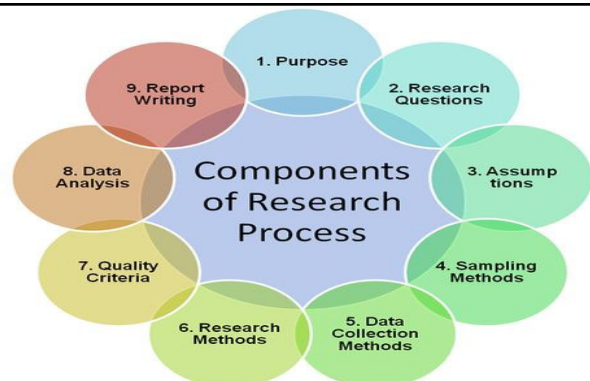


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Water Use Efficiency 2 -Years Out (cont.)

- 3 Policy Development
 - State and Federal Mandates
 - Manufacturing Standards
 - Building Codes
 - Metropolitan Program Refinements
- 4 Program Evaluation and Research
 - Implement Pilot Programs to Establish Viability and Water Savings of New Technologies
 - Program Evaluations to Improve Program Offerings and Determine Water Savings
- 5 Working with Metropolitan
 - Project Advisory Committee Representation (PAC)
 - Member Agency Administered Funding
 - IRP Planning
 - Innovative Conservation Program



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Visioning WUE 5 to 10 Years Out

- 1 Standardized Rebates
- 2 Water Use Efficiency Education to All Sectors
 - Public Outreach/Social Media
 - Implementation Programs
- 3 New Technologies will Provide Data at an Increasingly Fine Granularity
 - Improve Programs, Consumption Modeling, Leak Detection/Prevention
 - Expanded Research Efforts
 - Targeted Outreach for Better Program Promotion
- 4 Policy Development
- 5 Research and Evaluation
- 6 Integrating Water Efficiency and Watershed Health
 - Holistic Approach to Water Efficiency
- 7 Preparing Today for a Future of the Unknowns



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Discussion