

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com





What's New in Water Efficient Devices and Strategies

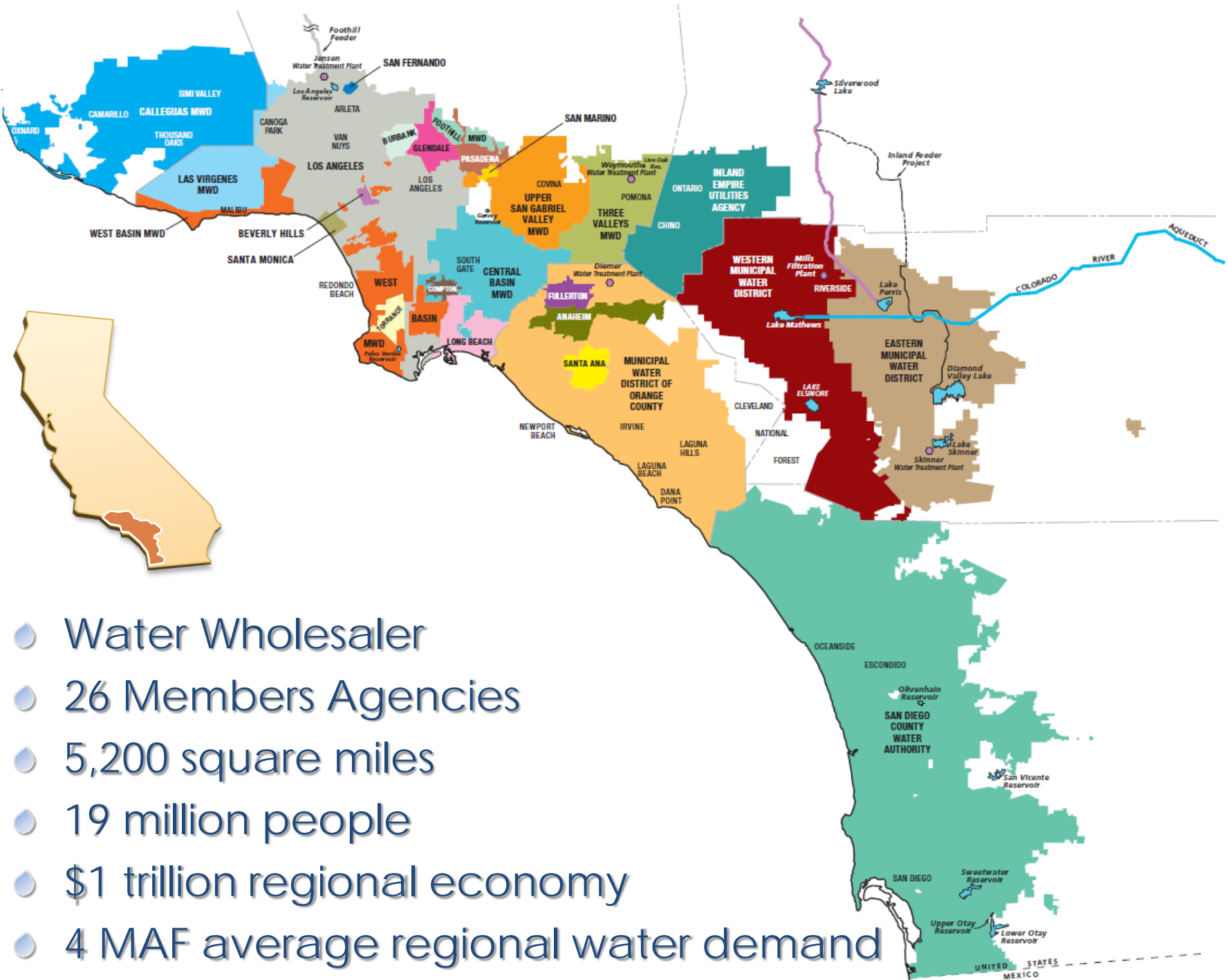
Marcia Ferreira, PhD

Metropolitan Water District of Southern California

WaterSmart Innovations

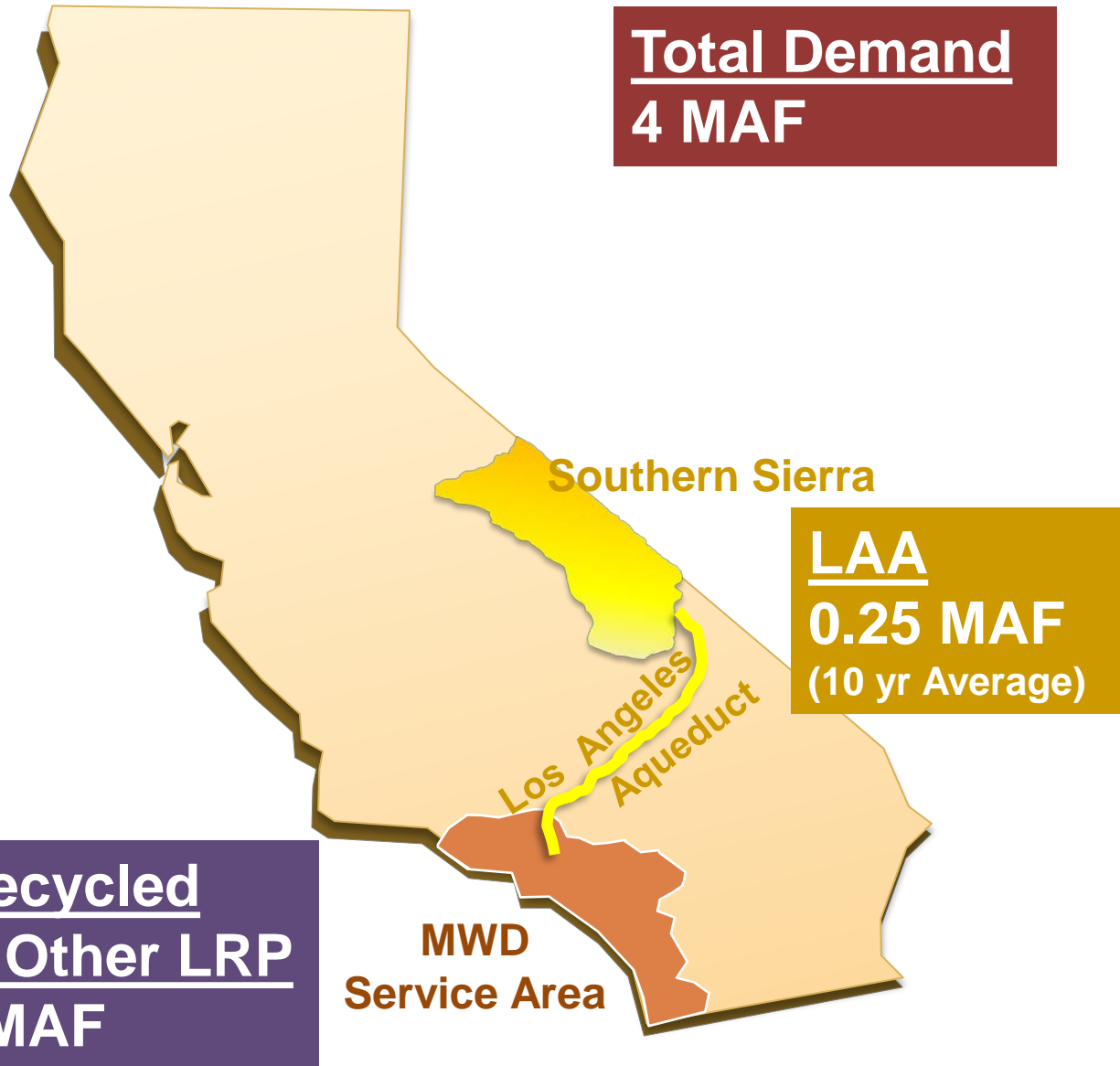
October 8, 2015

Metropolitan Water District of Southern California

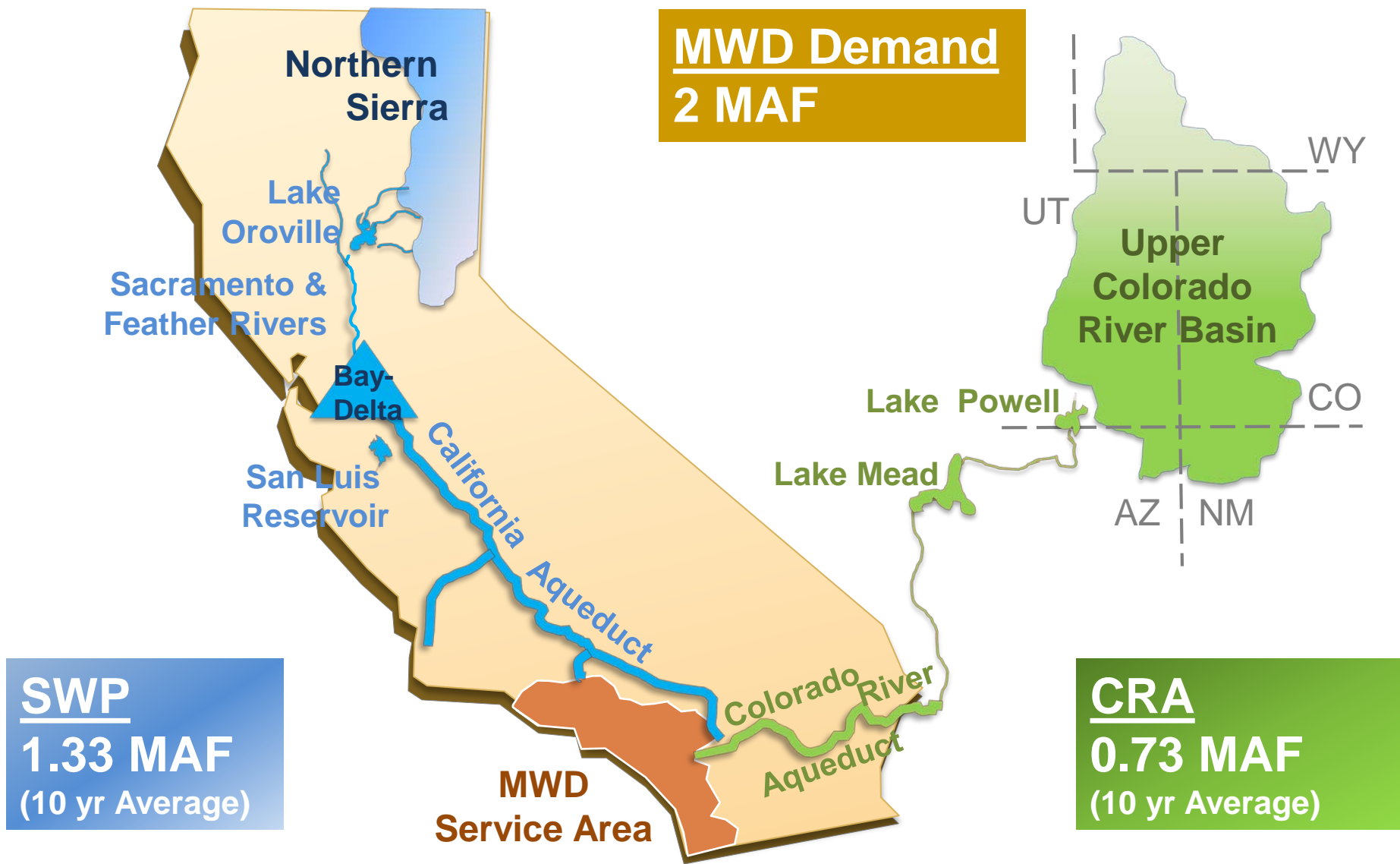


- Water Wholesaler
- 26 Members Agencies
- 5,200 square miles
- 19 million people
- \$1 trillion regional economy
- 4 MAF average regional water demand

SoCal Water Supplies



MWD Makes Up the Difference for SoCal



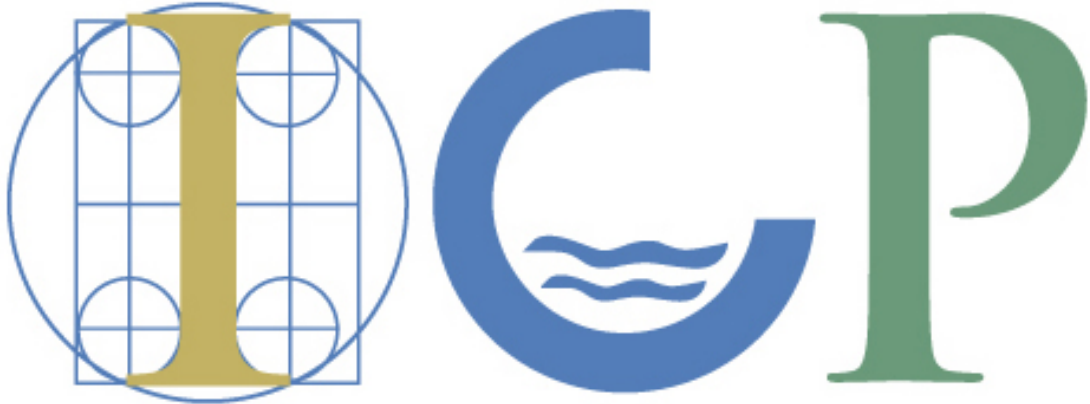
New Technologies

How Do You Evaluate New Technologies?



"This really is an innovative approach, but I'm afraid we can't consider it. It's never been done before."

Competitive Process Since 2001



I N N O V A T I V E
C O N S E R V A T I O N
P R O G R A M
Metropolitan Water District
of Southern California



ICP Basics

- Competitive grant
- Open to everyone
- Simple process
- Selection by panel of expert judges
- Study conducted by the applicant
 - Funding does not imply endorsement



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WATER AUTHORITY



Evaluation Criteria

- Project innovation
- Water savings
- Market impact
- Cost effectiveness
- Project preparedness
- ICP focus

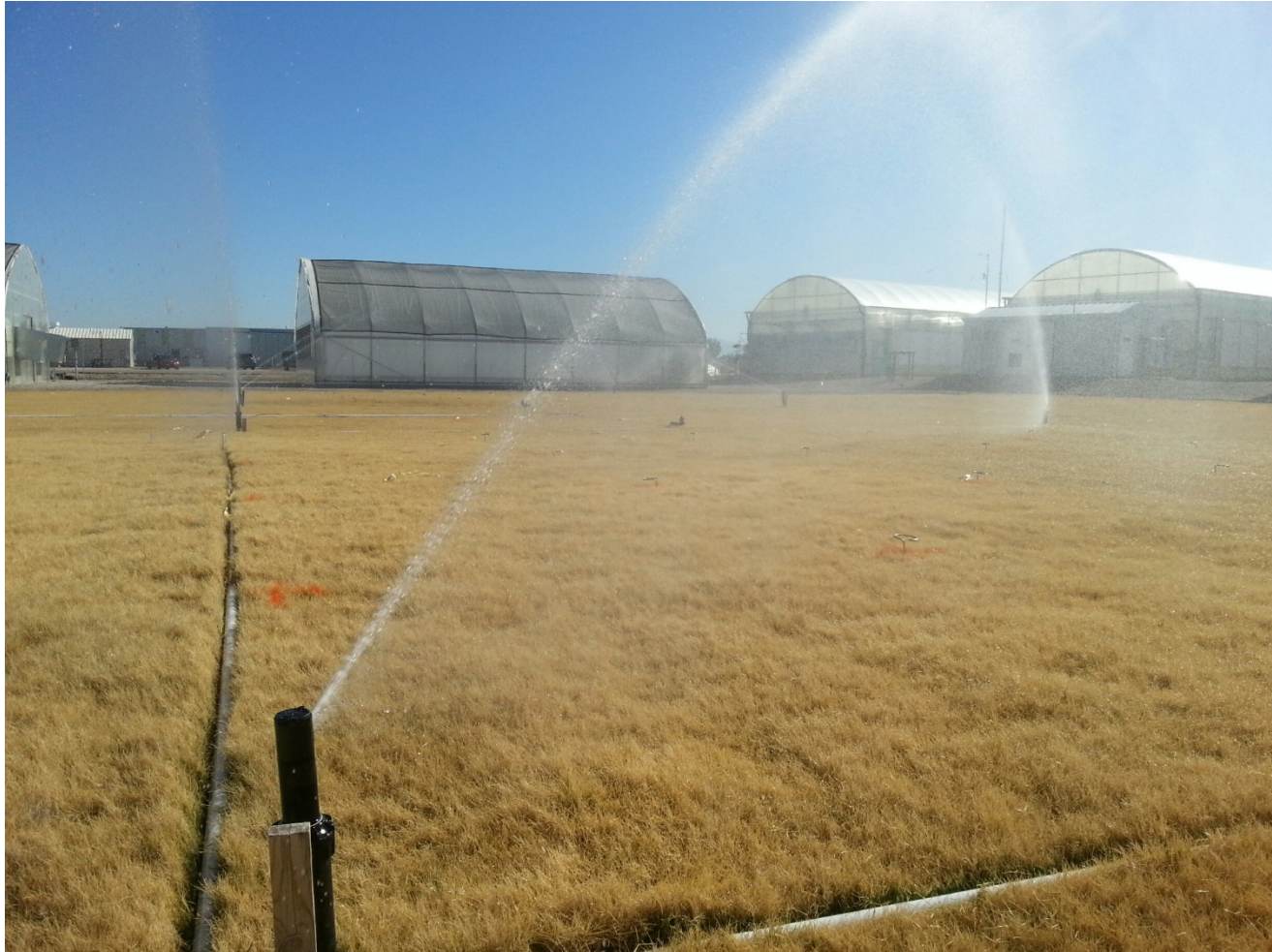


Selected 2013 ICP Projects

Irrigation

Irrigation
Rainbird

2013 ICP Recipient - Rainbird



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2013 ICP Recipient - Rainbird

- Pressure Regulating Stem (PRS)
 - Sprays & Rotors
 - Tests performed at U. of Arizona
- Results Presented at 2015 WaterSmart

T-1536	11:20am - 11:50am	Project PRS: How Much Water Can You Really Save?	Dustin Lacey , Rain Bird Corporation and Mike McAfee , Rain Bird Corporation
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Irrigation Fruition Sciences

2013 ICP Recipient – Fruition Sciences



2013 ICP Recipient – Fruition Sciences

- Irrigation based on Sap Flow Measurement
- Data transmitted via wireless



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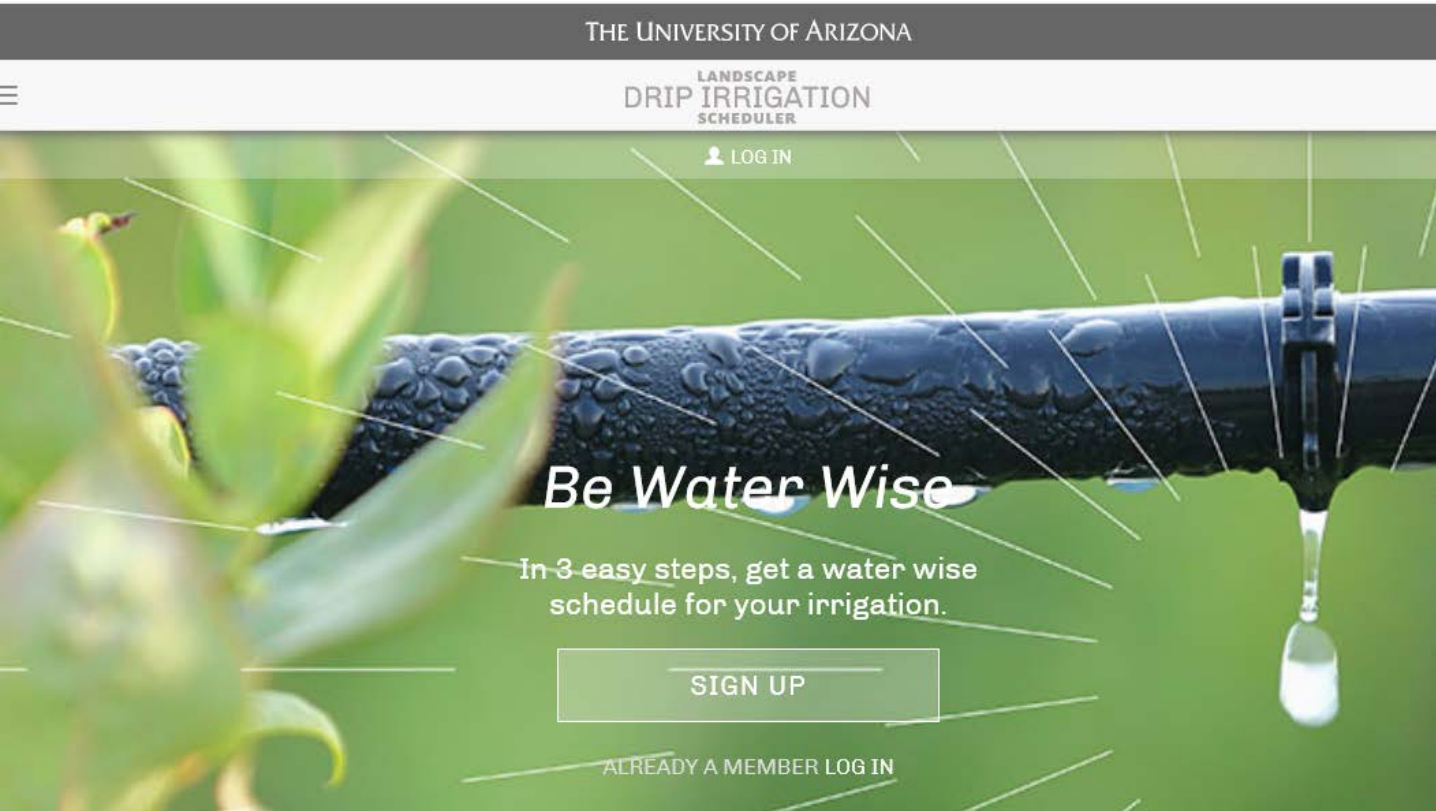


Irrigation

University of Arizona

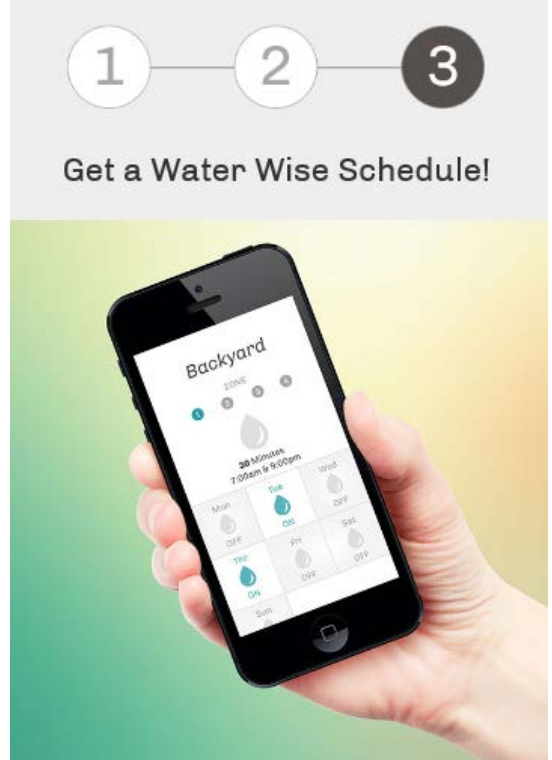
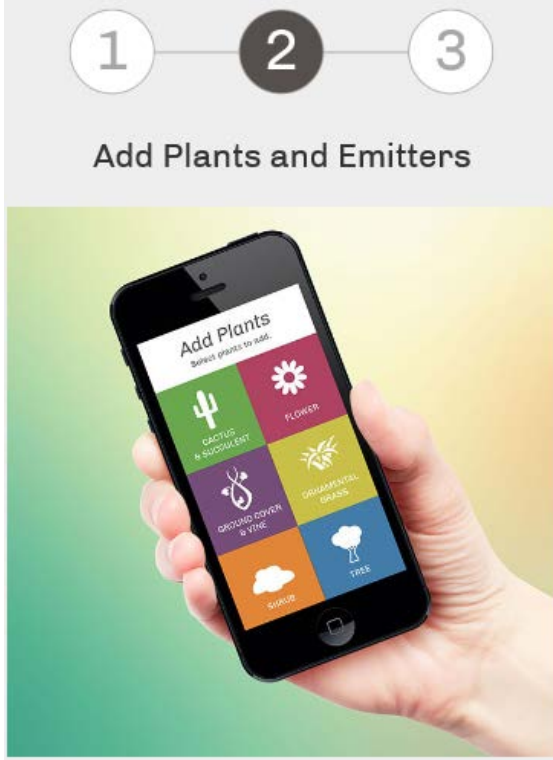
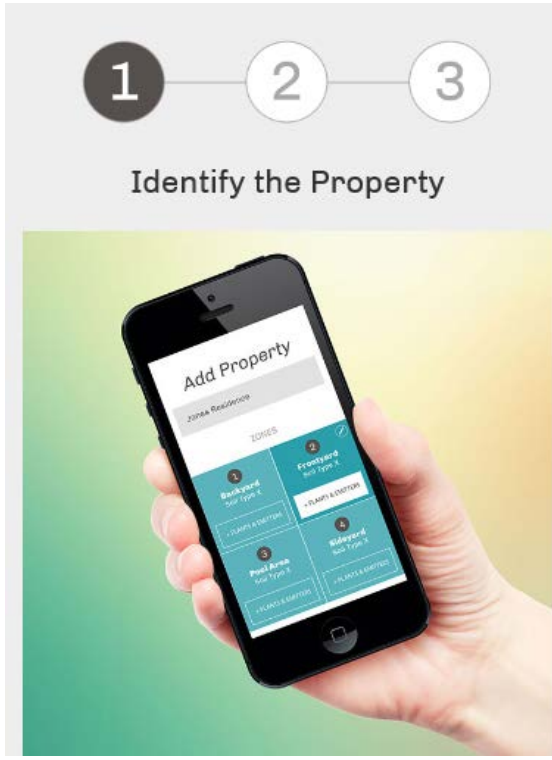
2013 ICP Recipient – U. of Arizona

- Drip Irrigation Scheduler



2013 ICP Recipient – U. of Arizona

University of Arizona Landscape Drip Irrigation Scheduler



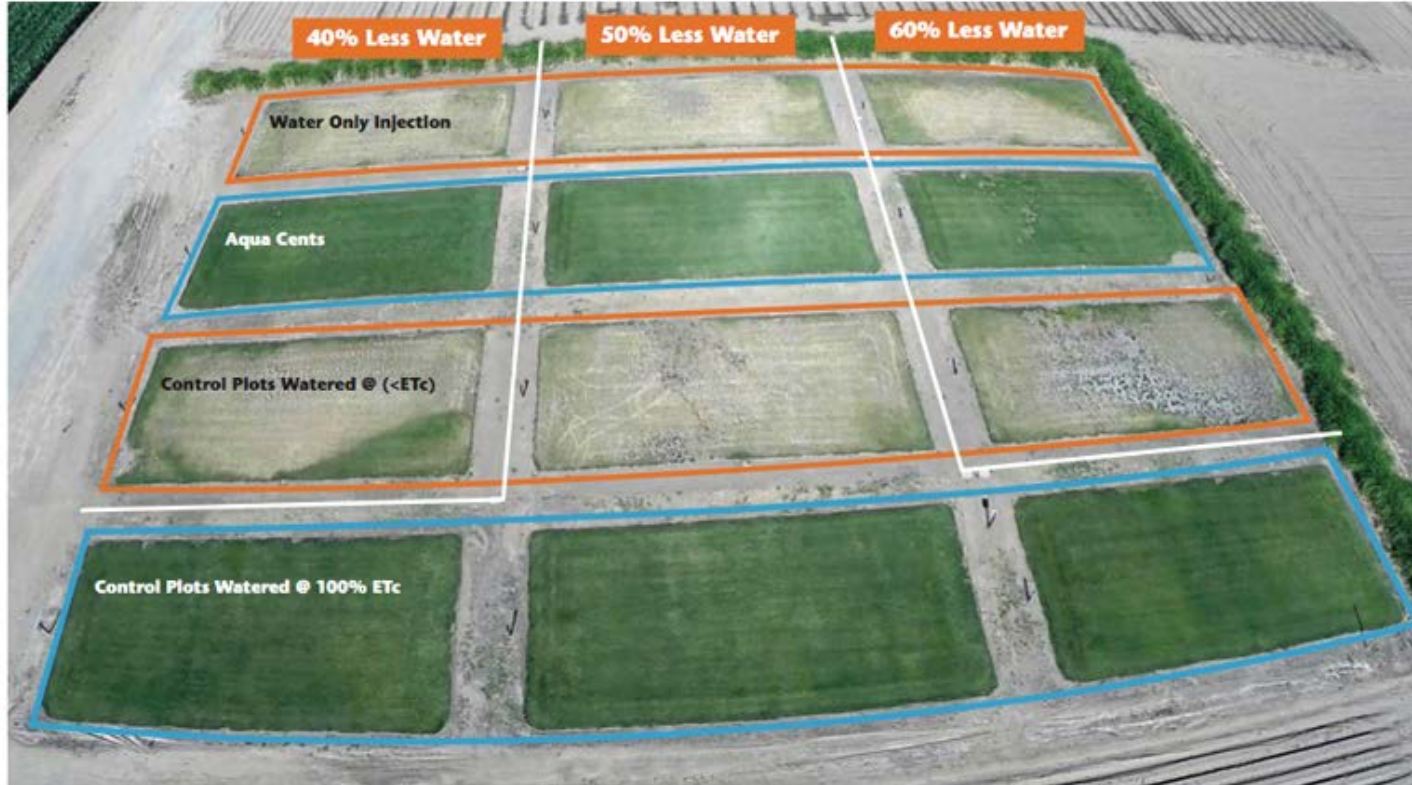
Soil Amendments

Soil Amendments

AquaCents

2013 ICP Recipient - AquaCents

- Studies conducted at CIT Fresno



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2013 ICP Recipient - AquaCents

- Hydrogels injected below root zone
- Exhibitor/Poster at 2015 WaterSmart

Aqua Cents® Water Management

Booth 122

Save 50% on outdoor water use with Aqua Cents Water Management. Using patented technology to deliver water-absorbing hydrogel beneath the root zone of existing turf, customers are reducing water use up by 50%. Save on the amount and frequency of water & fertilizer required with our organic hydrogel water-absorbing and holding capabilities. Savings are realized for a sustained period of 5-7 years with attractive ROIs.

12 Sheila Delany

Water Saving Results Within Existing Turf Grass Injected With Hydrogels

Aqua Cents Water Management



Soil Amendments

AquaSmart

2013 ICP Recipient - AquaSmart

- Polymer-coated sand



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2013 ICP Recipient - AquaSmart



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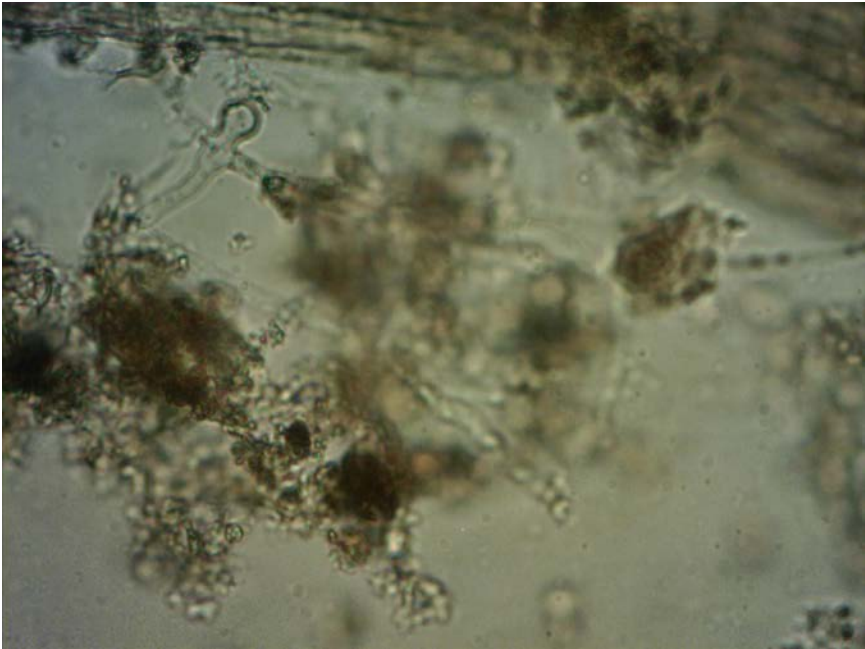


Soil Amendments

G3

2013 ICP Recipient - G3

- Compost Tea



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Soil Amendments
California Turf Grass and
Landscape Foundation

2013 ICP Recipient-CA Turf Grass Foundation

- BioChar



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2013 ICP Recipient-CA Turf Grass Foundation

- Tests performed at U. of California Riverside

THE BIOCHAR BLOG

All things biochar: production, gh gases, soil, crops, water, etc.

Jon Montgomery video on Metropolitan Water District Biochar and Compost Field experiment at UCR Turf Field Day



Author: Milton E McGiffen

Published on: October 7, 2015

The annual UCR Turf Field Day had its usual turnout of several hundred from across California and beyond. Jon Montgomery's thesis includes a large field experiment funded by the Metropolitan Water District's Innovative Conservation Program. Enjoy Jon's enthusiastic description of the project and his results, but please ignore me:

<https://www.youtube.com/watch?v=nElzwa7Mjhk>



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Non-Landscape

Non-Landscape Nexus eWater

2013 ICP Recipient – Nexus eWater

- Residential Greywater



- Exhibitor at 2015 WaterSmart

Nexus eWater	Booth 107	Residential water and energy recycling products.
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Non-Landscape
Fisher-Nickel

2013 ICP Recipient – Fisher-Nickel



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2013 ICP Recipient – Fisher-Nickel

- High Efficiency Conveyor Dishwasher

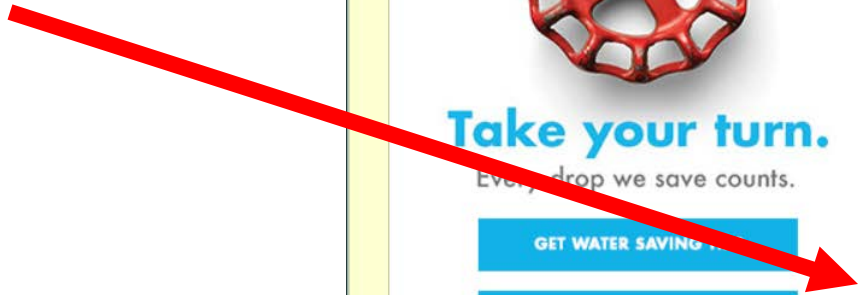


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Upcoming 2015 ICP

Innovative Conservation Program Info



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

bewaterwise.com

Home | Garden Spot | Rebates | Events | Contacts | Drought | Classes | Español

Find out how the drought is affecting Southern California and beyond



DROUGHT 2015

Read more >

• • • • •



Take your turn.
Every drop we save counts.

GET WATER SAVING

CAMPAIGN ADS AND MATERIALS

Rebates, Incentives & Grant Programs

- SoCalWater\$mart Rebates**
Save for homes, businesses, gardens and landscapes
- On-Site Retrofit Pilot Program**
Incentives for public or private property owners to convert potable irrigation or industrial systems to recycled water
- Water Savings Incentive Program**
Incentives for custom water use efficiency projects
- Landscape Irrigation Survey**
No-cost survey to help improve irrigation efficiency
- Innovative Conservation Program**
Research-focused program of new devices, technologies and water-saving strategies
- World Water Forum**
Offering grants to college teams to research and develop cost-effective, water-saving technologies, policies or communication strategies



Innovative Conservation Program Info

The screenshot shows the website for the Metropolitan Water District of Southern California's Innovative Conservation Program. The header includes the district's logo and the text "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA" and "bewaterwise.com". A navigation bar lists "Home | Garden Spot | Rebates | Events | Contacts | Drought | Classes | Español". A secondary navigation bar lists "Home + Grants and Sponsorships + Innovative Conservation Program".

What is the Innovative Conservation Program?

Metropolitan's Innovative Conservation Program (ICP) provides funding in cooperation with the U.S. Bureau of Reclamation (USBR), Southern Nevada Water Authority (SNWA) and the Central Arizona Project (CAP) for research that will evaluate the water savings potential and reliability of innovative water savings devices, technologies and strategies.

New projects are identified and evaluated every other year. The next round of funding is scheduled for 2015. All interested parties including public, private or nonprofit organizations are eligible for funding.

ICP Projects

[View a list of the 2013 Awarded Projects](#)

Contact ICP

To receive notice when the 2015 ICP is available or for additional information, contact:

Marcia Ferreira
Water Resources Management Group
Metropolitan Water District of Southern California

Examples of Past Project Reports

Valvette Systems
LittleValve Water Savings
This project was designed and undertaken to quantify the water savings of LittleValve sprinkler products compared to existing irrigation products on the market.

Univ. of Calif. Riverside
Leaching Requirements for Turf Grass Salinity Management and Water Conservation
This project investigated the effects of hyper saline water on rye grass across various irrigation profiles.
[December 2011 final report](#)
[March 2012 update](#)

Central Basin Municipal Water District
Water Savings in Disadvantaged Communities
This study evaluates water needs, savings and the rebate process, and sought to reduce imported water demands, reduce stress on the Bay Delta, improve water supply reliability and meet conservation objectives.

Global Energy Partners, LLC
Condensing Boiler Economizers
The objective of this report is to evaluate benefits associated with condensing boiler economizers.

Conserv Co
Faucet Washer Retrofit Program
Pilot program to evaluate the effectiveness of the DripStop® Valve to save water and energy.

Orange County CoastKeeper
Orange County Stormwater Infiltration Retrofit Pilot Program
This pilot program assessed the efficiency and cost-effectiveness of a large-scale Low Impact Development (LID) incentive program.

Fytogreen Pacific, Inc., and Cal Poly Pomona
Water Conservation Using Fytogreen
The experiment was designed to test the effectiveness of a soil amendment for water efficiency and increase turf grass quality.



What's New in Water Efficient Devices and Strategies

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