

This presentation premiered at WaterSmart Innovations

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Managed Landscape Program

A Performance-Based Pilot Program
in the San Diego Region

October 7, 2010

WSI Conference, Las Vegas

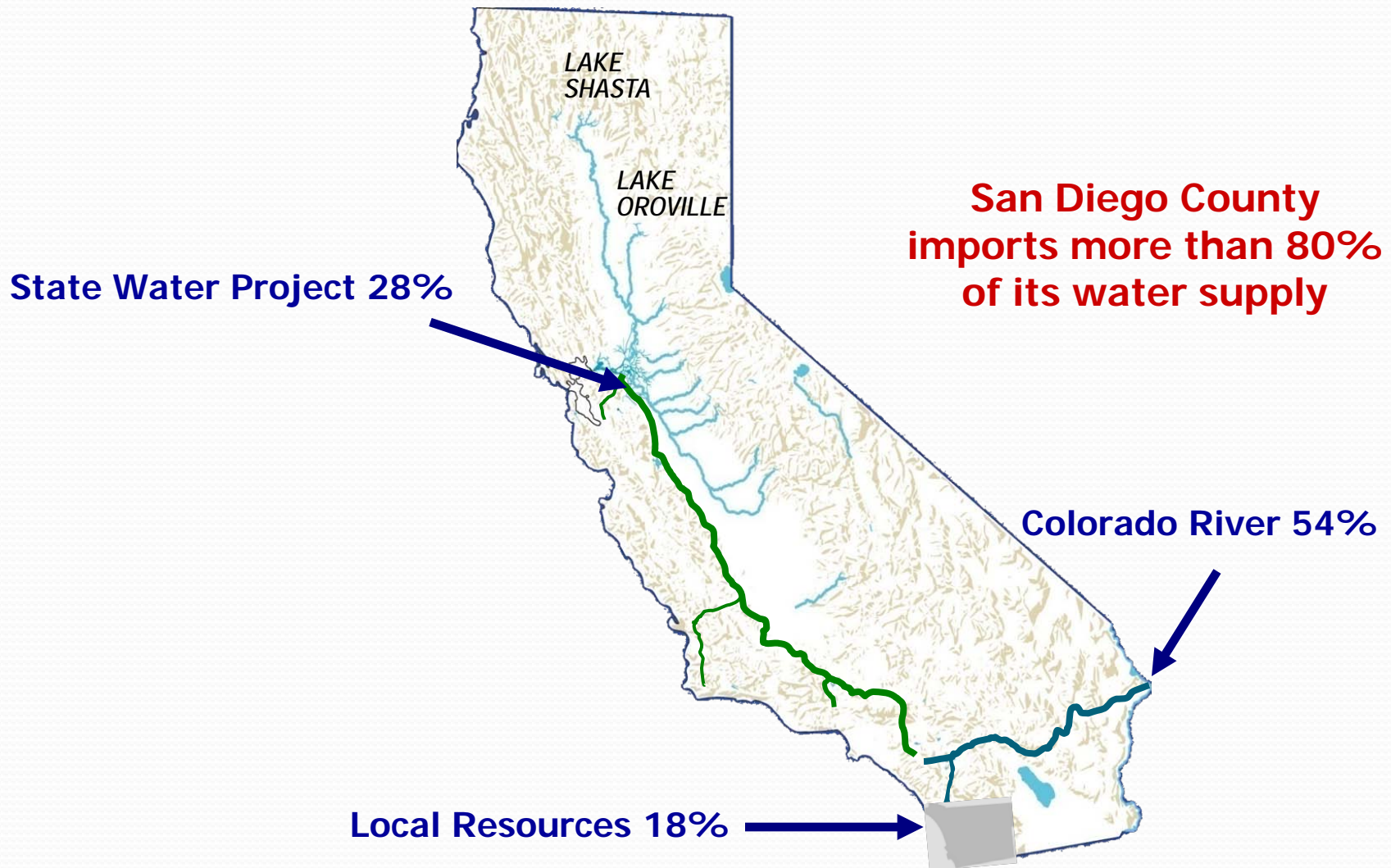




Overview

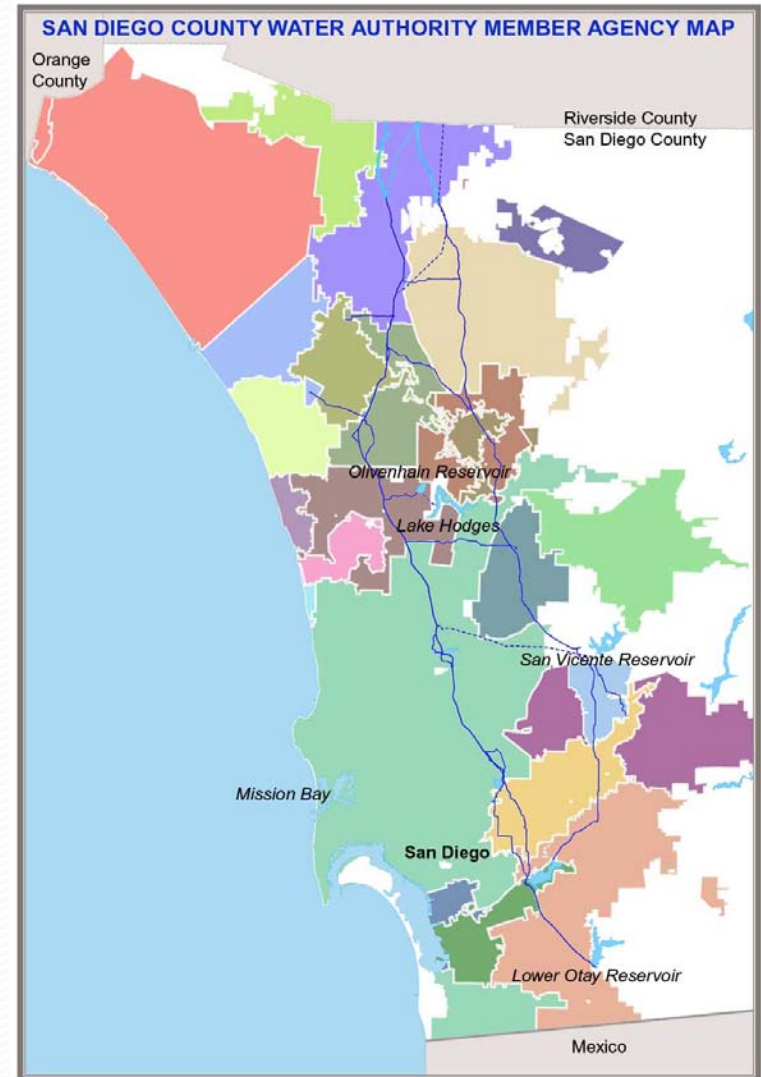
1. Intro & Regional Program Highlights (Michelon)
2. CA's Water-Energy Pilot Programs (Heppell)
3. Program Contractor Perspective (Bak)
4. Retail Utility Perspective (Jacoby)
5. Questions / Discussion

San Diego County's Water Sources



San Diego County Water Authority

- 24 member agencies
- 3 million people
- 920,000 acre service area
- 97% of county's population



Statewide Water Conservation Actions

- Governor declares drought in June 2008 & utilities adopt **Drought Ordinances**
- New statewide Model **Landscape Ordinance**
- Governor calls for **20% reduction** in water use (SBX7-7)



Managed Landscape Program Highlights

1. Applies energy sector's "**measured savings**" model
2. Objective: better **irrigation control** – applies CA Prop 13 WBIC lessons
 1. Program **targeted** at high water users
 2. **Guaranteed Performance:**
 - > % of sites that saved water: 100% (vs. 57% with lower Appl. Ratio)
 - > Average savings per site: guaranteed min. of 20% (vs. 6%)
3. Implementation Method: **Outsourced turn-key** service to contractor
4. **Key take-away:** "*You get what you ask for*"

Water-Energy Pilot Programs



Water Agencies Are the Largest Energy End-Users

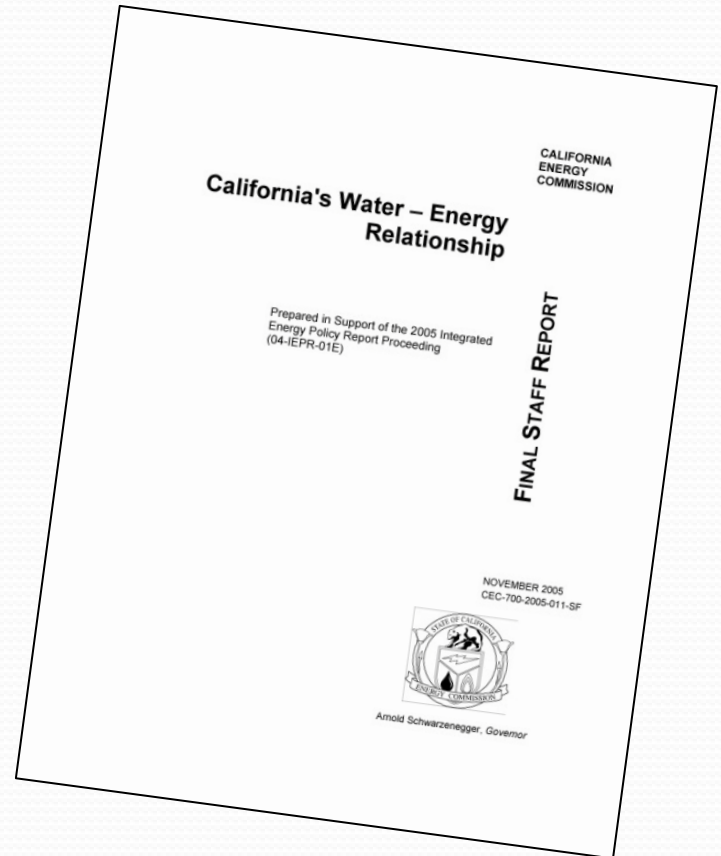
California's consumption of water-related energy represents:

- 19% of the state's electricity
- 30% of its natural gas
- 88 billion gallons of diesel fuel

... and the demand is growing!

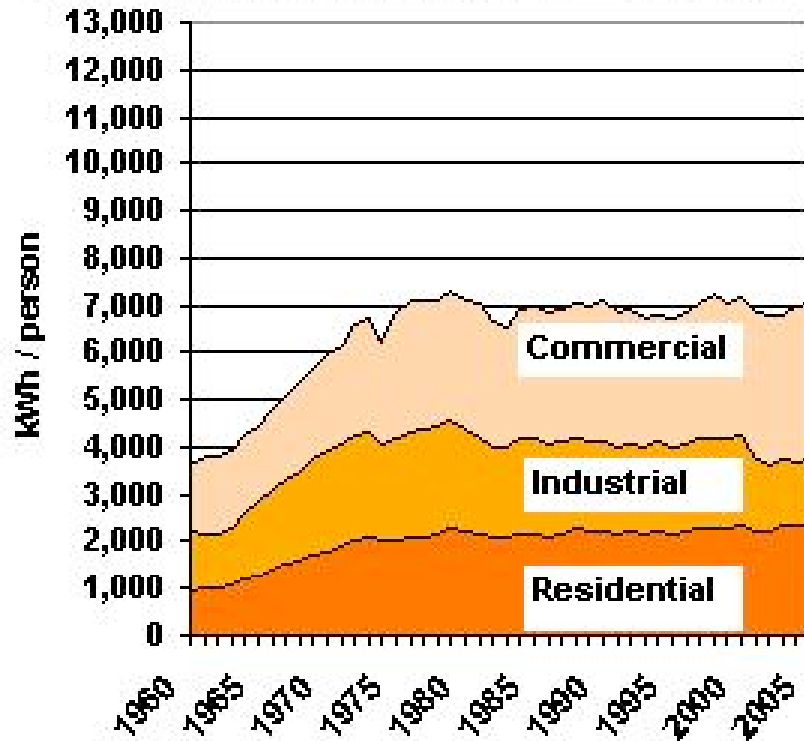
Energy Commission's 2005 Water Energy Report

- California's regulated energy utilities were asked to do more to promote water conservation
- Model the success of California's energy efficiency programs

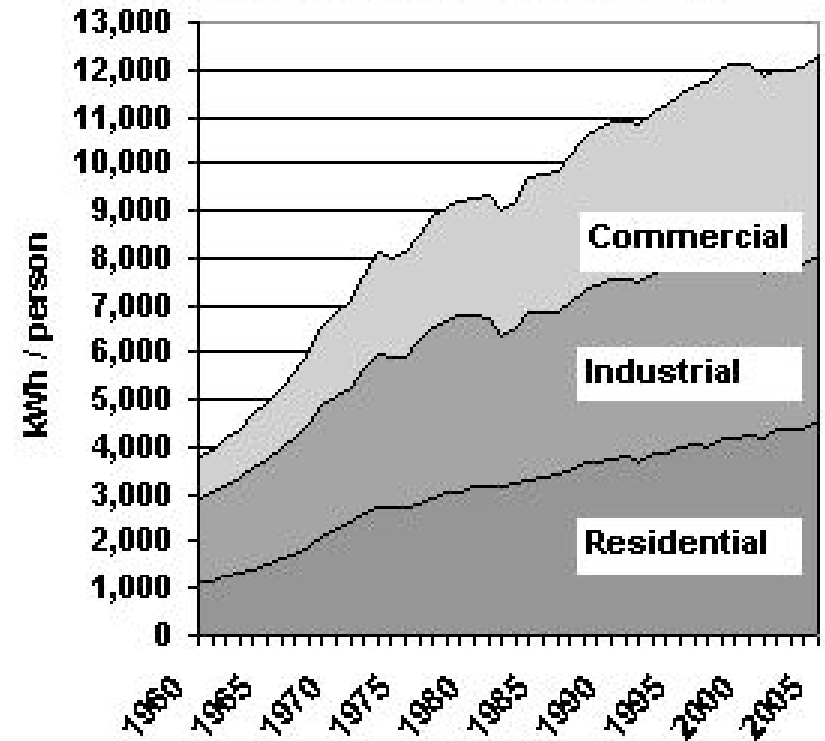


CA Per Capita Energy Consumption

Per Capita Electricity Consumption -- California



Per Capita Electricity Consumption -- US



**California's per capita energy consumption
has remained relatively flat since 1973**

California's Water/Energy Pilot Programs

In 2007, California's Public Utilities Commission asked the four larger state energy utilities to develop Water/Energy Pilot programs.

- Develop partnerships with water agencies
- Undertake jointly-funded water conservation programs
- Evaluate and measure the results
- If cost-effective energy and water savings can be demonstrated, water conservation programs could be added to energy efficiency portfolios

California's Water/Energy Pilot Programs (Cont'd)

- The pilot programs were to focus on cold water energy savings (production, transportation, use, treatment, and disposal)
- Three Water/Energy Pilot programs were developed in SDG&E's service territory
- SDG&E and SDCWA worked together to develop the Managed Landscapes pilot's specific goals and expected results. The decision was made to outsource the program and an RFP was issued

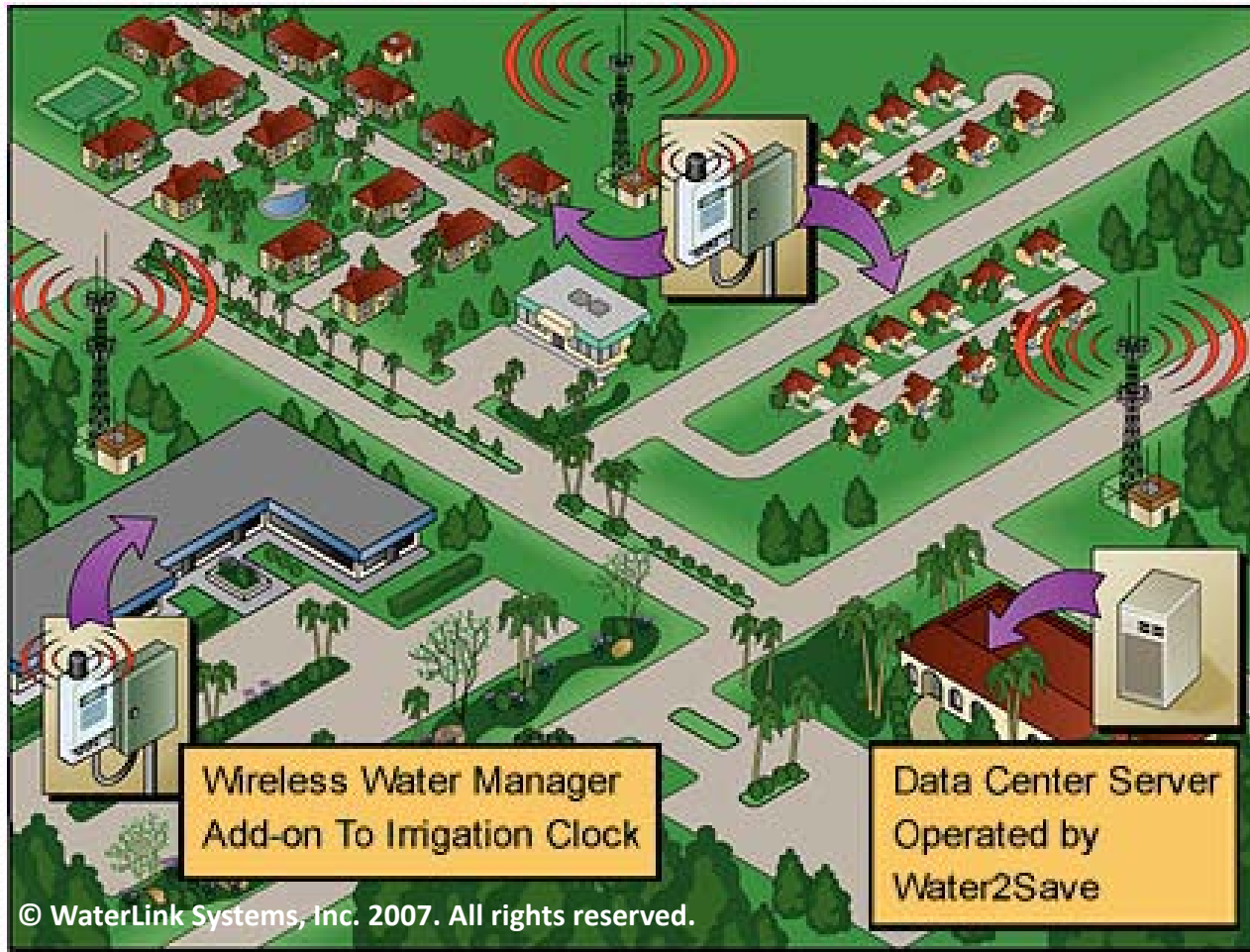
Program Contractor Perspective



Managed Landscape Program (MLP) Goals

- Achieve minimum of 20% savings on large landscapes
- Water2Save, LLC's scope of services for MLP project included:
 - Identify and recruit properties with savings potential throughout San Diego County
 - Install and operate remote water management & wireless data communications equipment
 - Manage 1 year of operation at each participant site
 - Monitor water usage during project participation

Managed Landscape Program - Operated by Water2Save



Profile of MLP Participants (13 Sites)

Variety of Property Types

- HOA's, apartment communities, commercial, schools
- Landscape sizes varied from 2 to 11 irrigated acres
- 3 to 10 remote water managements units installed per participant site

Variety of Locations/Climate Zones

- City of San Diego Water District, Otay Water District, Vallecitos Municipal Water District, and City of Poway
- San Marcos to Chula Vista, La Jolla to El Cajon

*Location of
Participants within
San Diego County
Climate Zones*

SD County ETo, CIMIS Stations and Zipcodes

LEGEND



Program Results

Water Savings Performance:

- All participants surpassed 20% savings threshold
- Average savings of 36% compared to previous 4-5 year historical averages

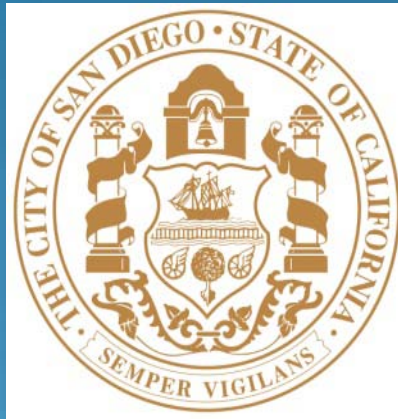
Total Water Saved:

- 155 AFY / 67,500 Hundred Cubic Feet / 50.5 Million Gallons

Participant Retention:

- 84% upon project completion

Retail Agency Perspective



Retail Water Agency Benefits of Participation

- Agency benefits from having customer participation
- Customers benefit from decreased consumption and lower bills
- Opportunity to “test drive” a potential service to customers
- Option to recommend service to other customers
- Potential ability to realize urgent usage reductions with one or more organizations that control multiple meters and many sites



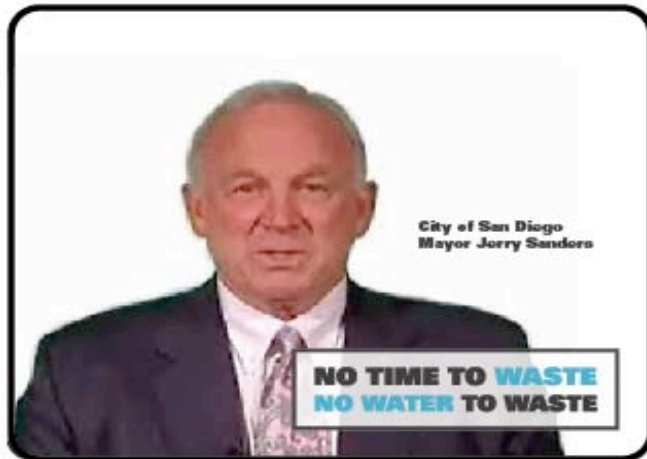
Retail Agency Program Implementation Support

- Coordinate with service provider to identify customers who would possibly benefit from the program
- Provide timely and regular consumption histories for participating customers



Water Management vs. Water Restrictions

Level 2 Mandatory Restrictions

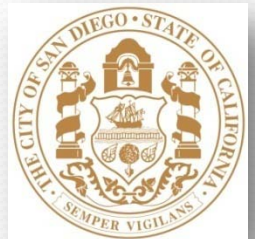


As of June first, the City of San Diego will begin enforcing mandatory water use restrictions.



If your home has an even numbered address your watering days are Sat. Mon. Wed.

NO TIME TO WASTE
NO WATER TO WASTE



Water Management vs. Water Restrictions

Water Waste Restrictions - Level 2

- Irrigate 3 designated days a week
- Maximum of 10 minutes for typical fan spray (7 min. winter) unless system is regulated by a Weather Based Controller

**NO TIME TO WASTE
NO WATER TO WASTE**

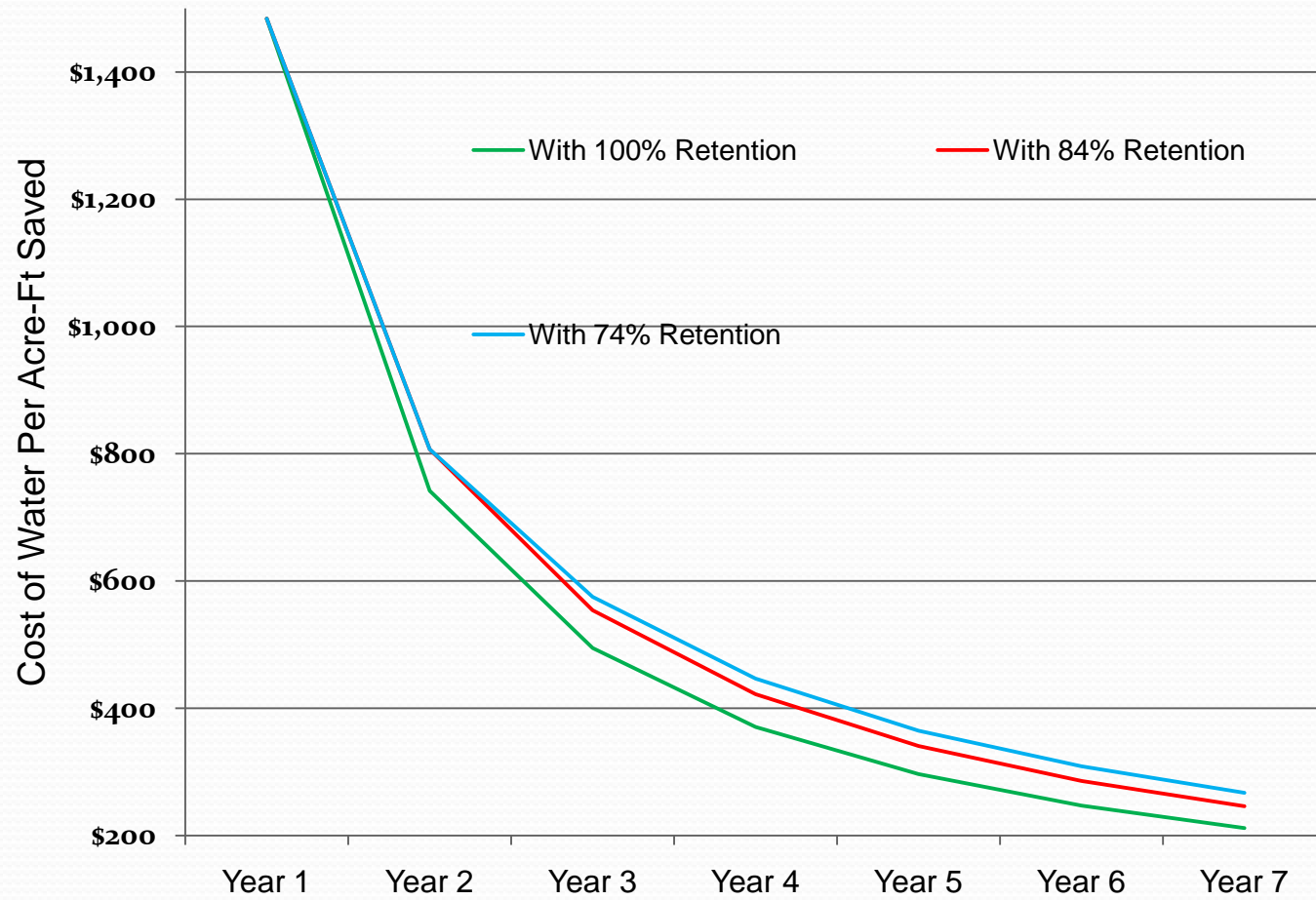
Revisions to Drought Response Ordinance:

“proposed alternative water use restrictions for the property would result in greater water saving than the existing water use restrictions”



Conclusions

Preliminary Cost-Effectiveness Estimates



Contact Information

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Questions & Discussion