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The Metropolitan Water District of
Southern California

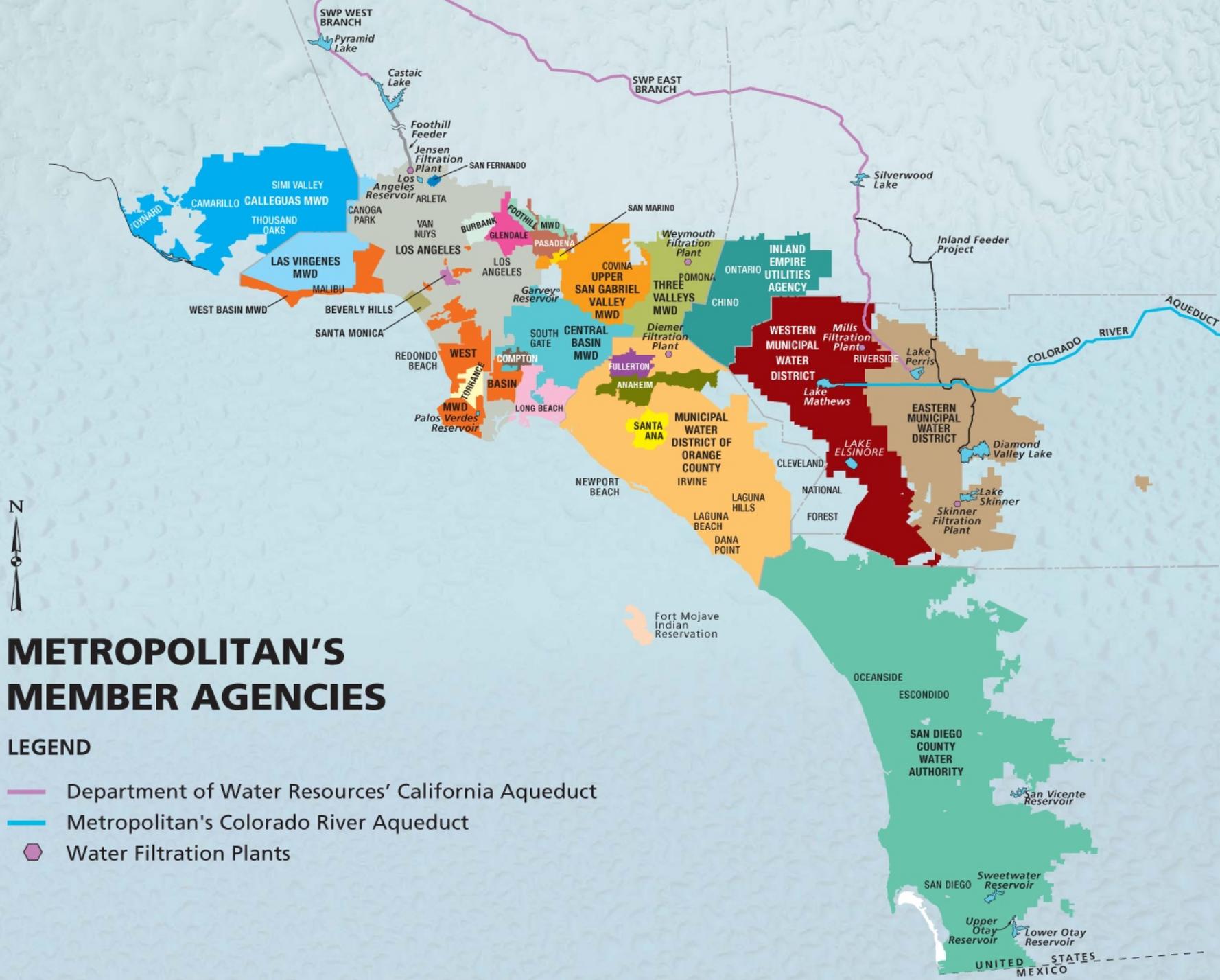
Research: A Non-Incentive Approach to Conservation

Carolyn Schaffer, Resource Specialist
October 3, 2013

Metropolitan Water District of Southern California



- Regional water wholesaler
 - Serves 6 counties, 19 million people
 - 5,200 square mile service area
 - \$1 trillion regional economy
 - 50%+ of region's water supply
 - Population increasing ~170,000 per year



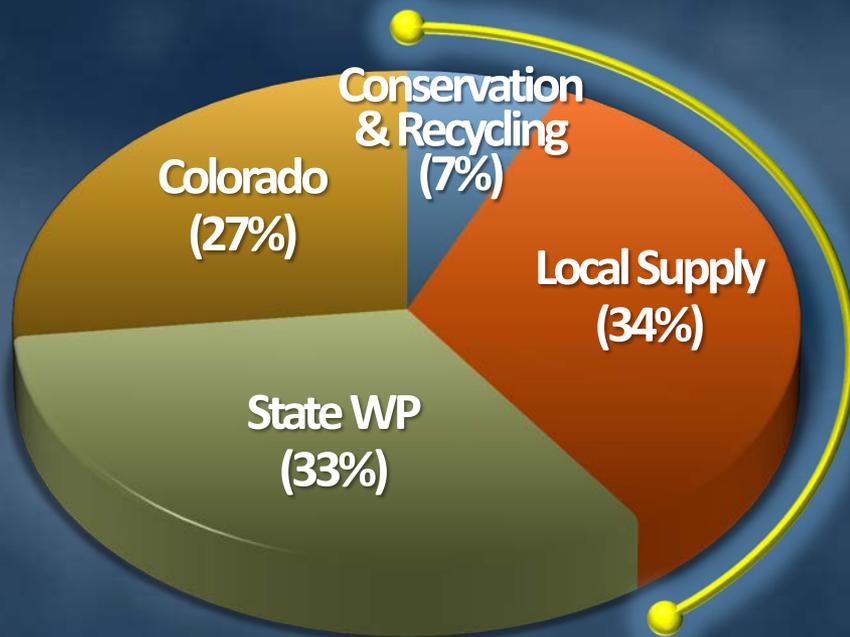
METROPOLITAN'S MEMBER AGENCIES

LEGEND

- Department of Water Resources' California Aqueduct
- Metropolitan's Colorado River Aqueduct
- ⬡ Water Filtration Plants

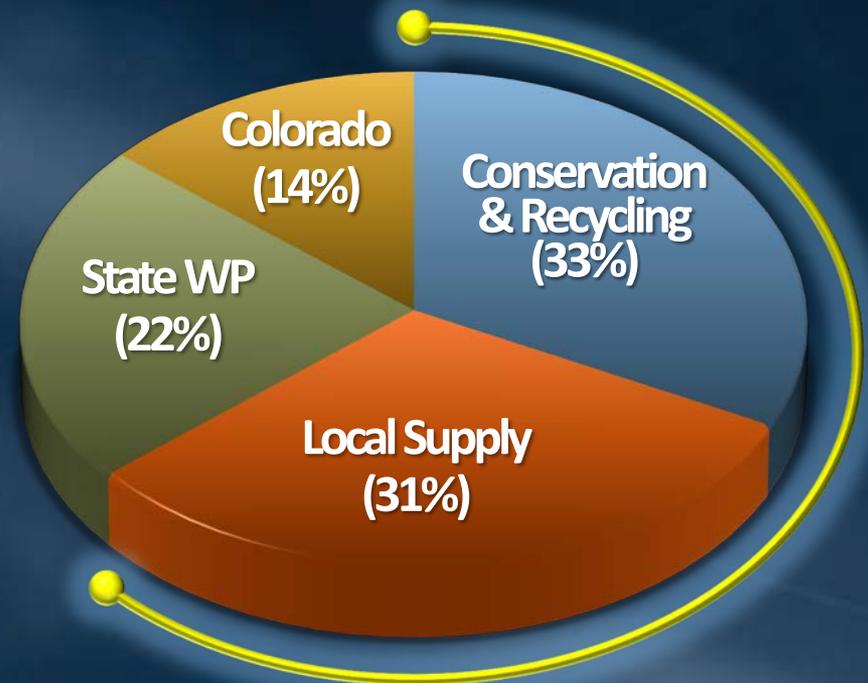
MWD Water Supply Strategy

Average Year Water Supply – 1990 vs. 2035



1990 – 41% Local

Heavy dependence on imported supplies



2035 – 64% Local

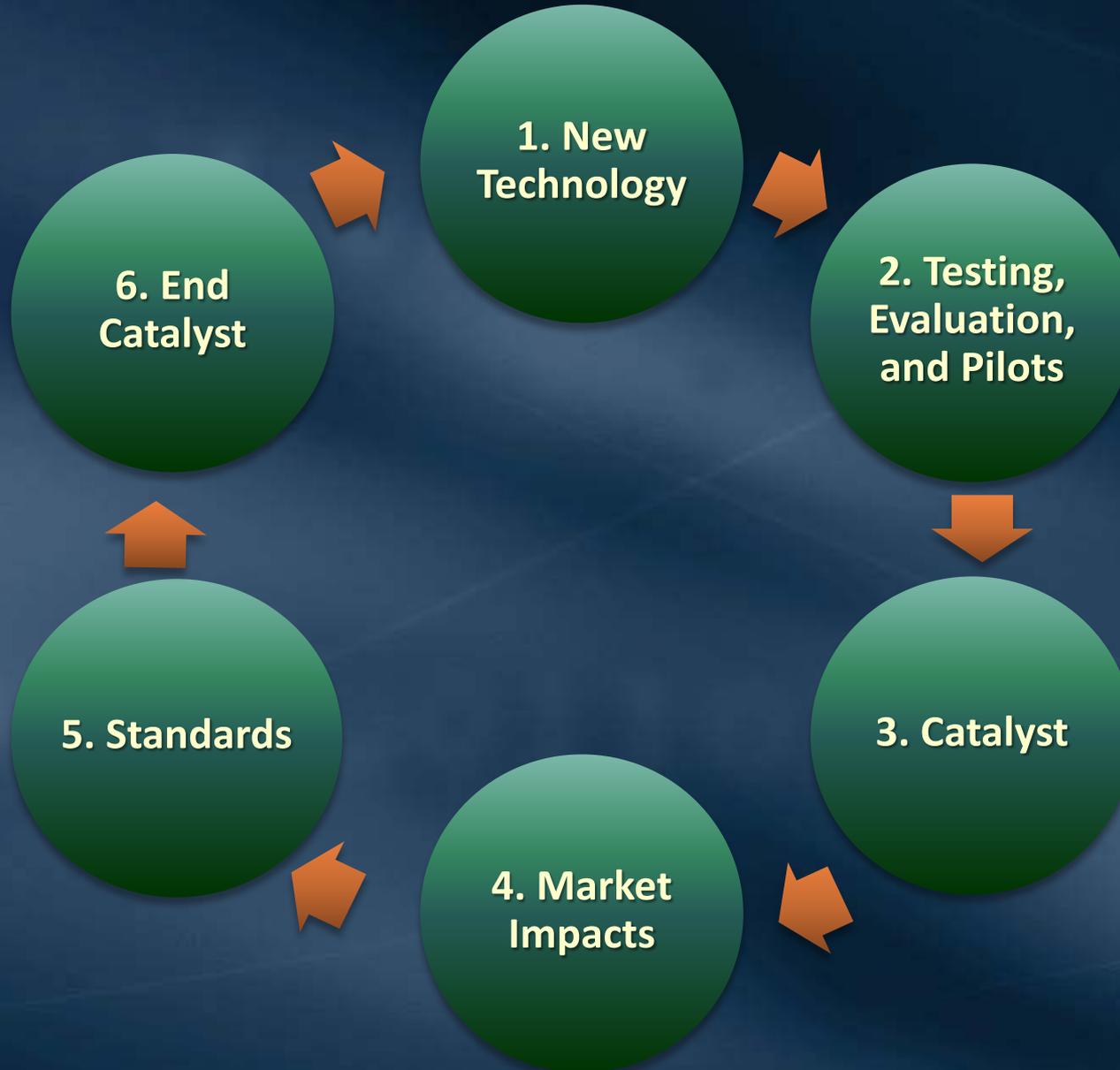
Emphasis on conservation, recycling, & local supplies

Long-Term Conservation Plan Goals

- Achieve the planned conservation target
 - Targeting a 20% reduction in GPCD
- Pursue innovation that will advance water use efficiency and conservation
- Transform the public's perception of the value of water within the region

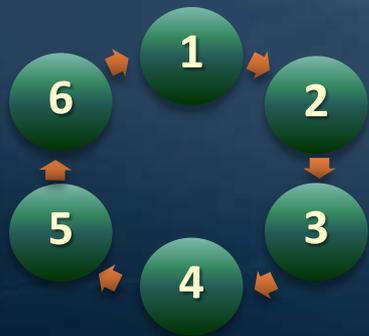


Program Cycle



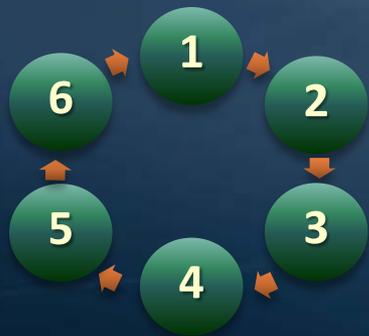
1. New Technology

- What ideas are inventors/entrepreneurs working on?
- Innovative Conservation Program
 - \$450,000 available
 - Sponsors: MWD, USBR, Southern Nevada Water Authority, Central Arizona Project
 - Proposals due Oct. 15 (www.bewaterwise.com)



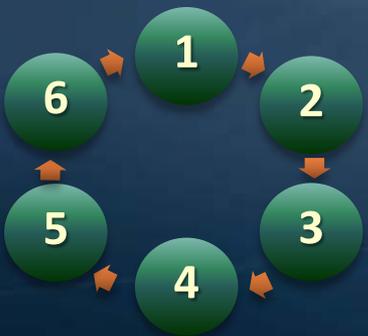
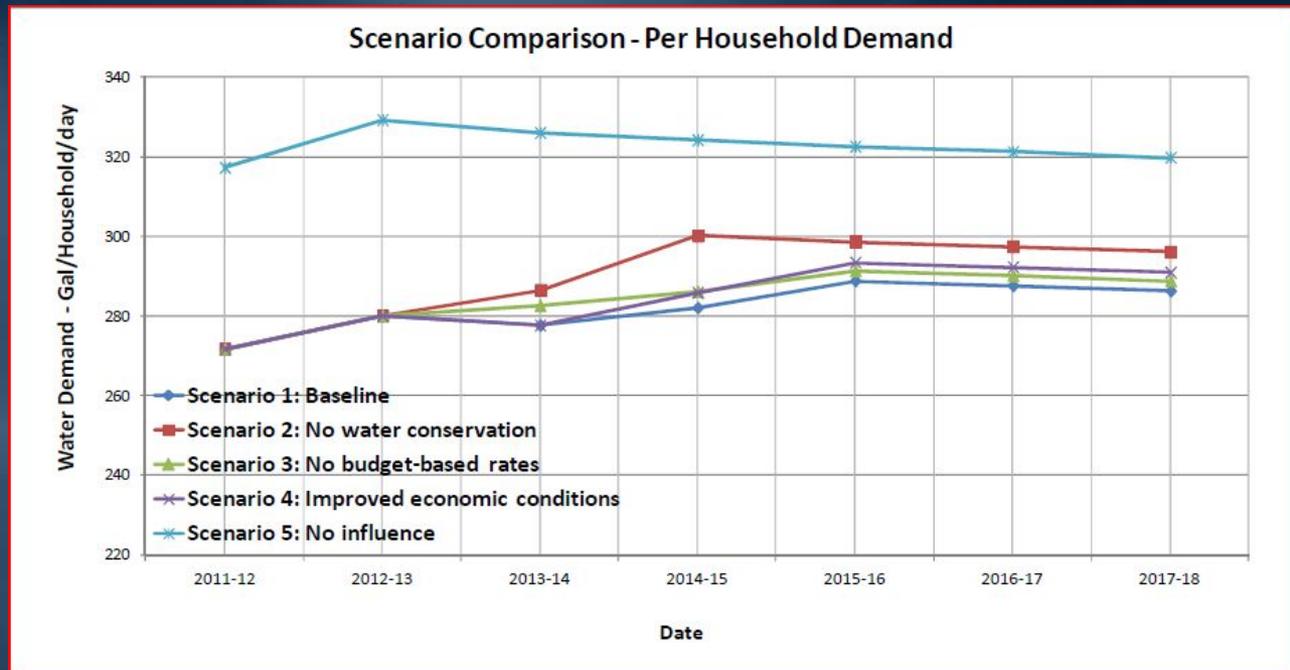
1. New Technology

- California Turfgrass and Landscape Foundation
 - Breeding new drought tolerant turfgrass
 - Reinvigorating program at UC Riverside



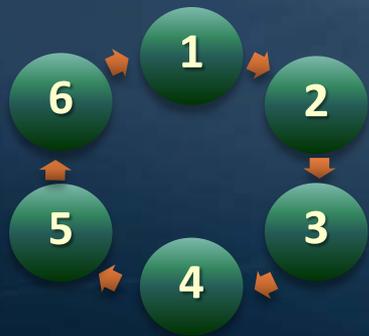
1. New Technology

- Demand study using Simulait Agent-Based Micro-simulation Model
 - Arcadis and ISD Analytics



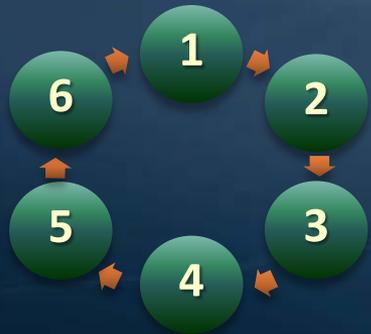
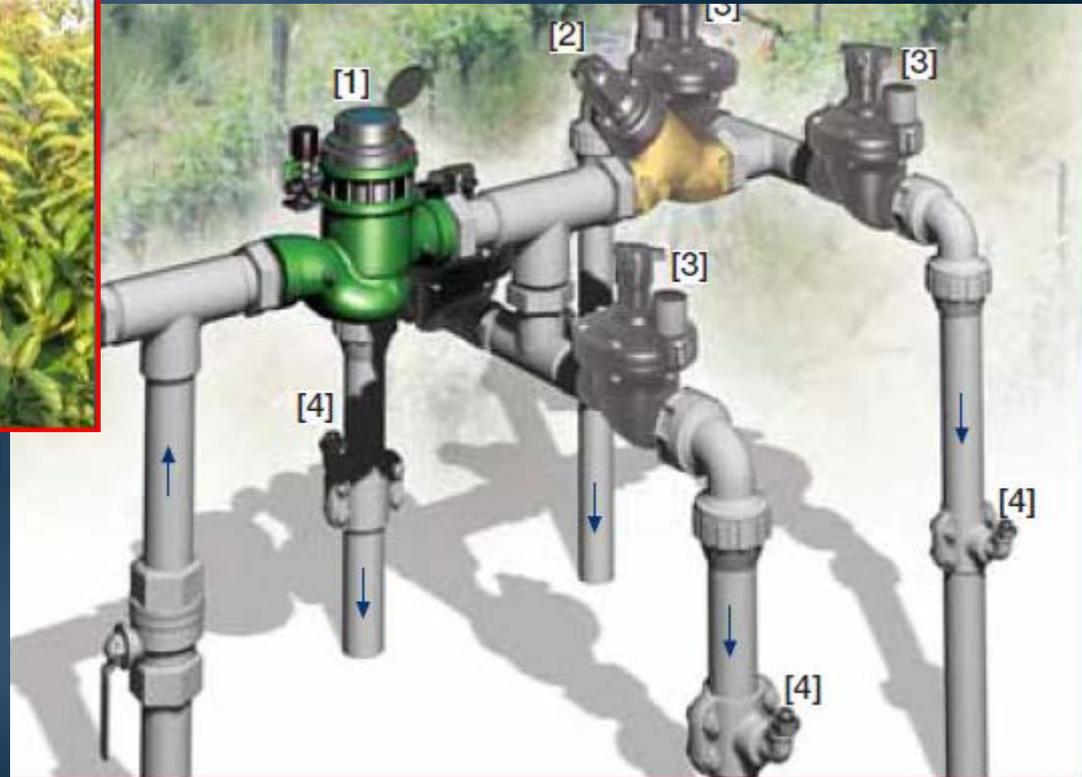
2. Testing, Evaluation and Pilots

- What is the water savings potential?
- California Turfgrass and Landscape Foundation
 - Irrigation Requirements for Salinity Management
 - Turf establishment – subsurface drip irrigation vs. overhead spray
 - Evaluation of products for turfgrass water conservation



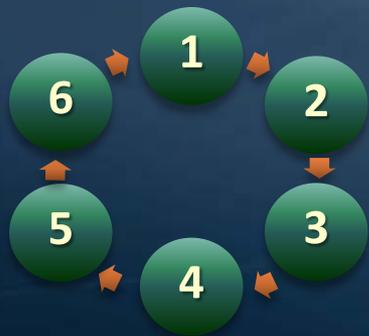
2. Testing, Evaluation and Pilots

- California Avocado Commission - Automatic control valves



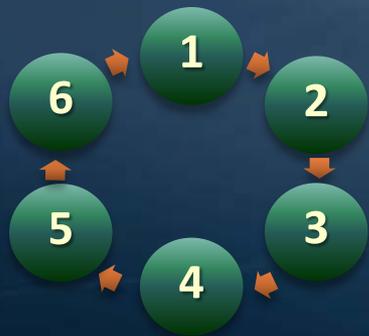
3. Catalysts

- Are we achieving the expected water savings?
- Are incentives affecting buying decisions?
 - Long-term savings analysis of WBICs
 - (Session T-1344)
 - Verifying savings and installation of nozzles



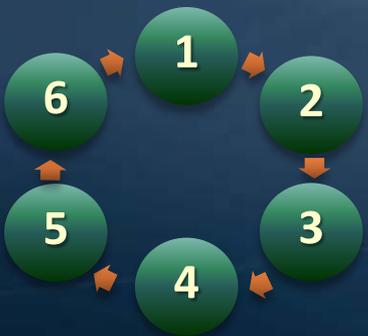
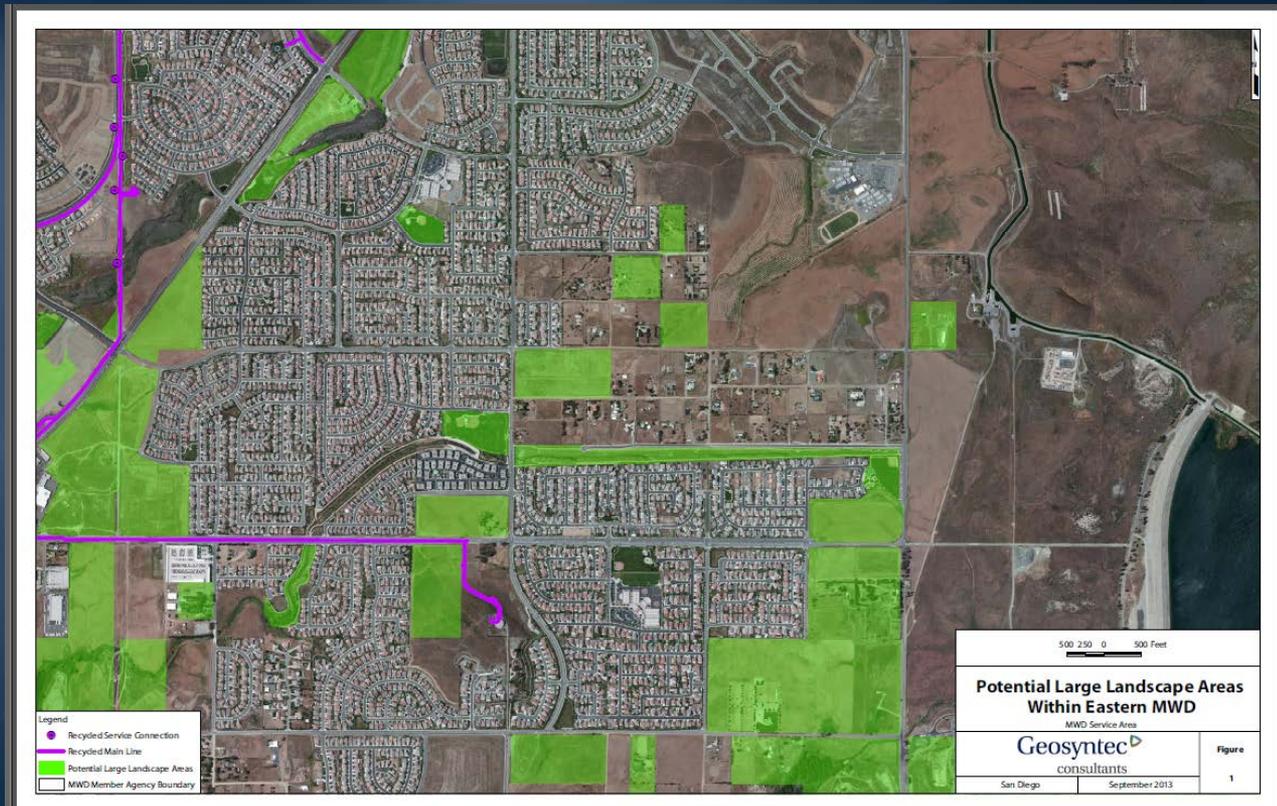
3. Catalysts

- Verify water savings from turf removal
- Verify installation and retention of waterless urinals
- Analyze water savings of toilets and urinals



4. Market Impacts

- Where are the new opportunities?
 - Commercial Market Study (Session T-1330)
 - Large Landscape Opportunities (Session T-1316)



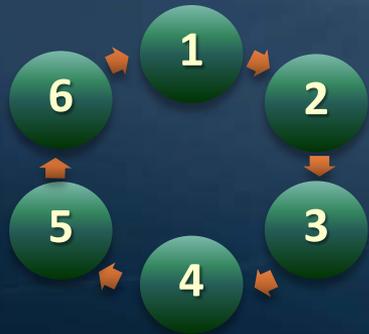
5. Standards

- Can we define current “state of the art”?
 - Nozzles for pop-up sprays



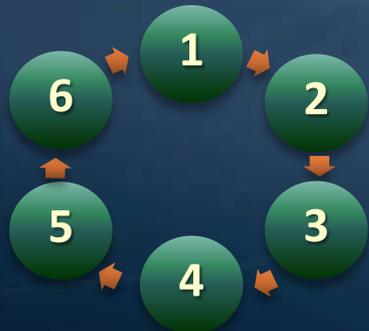
6. End Catalyst

- Have we reached the tipping point?
 - Saturation study (not currently planned)



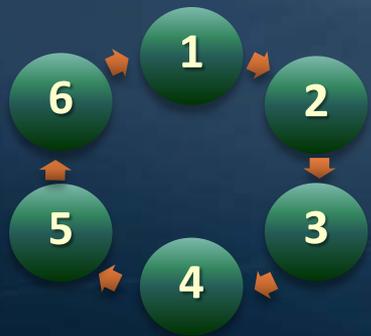
Other Research Opportunities

- Alliance for Water Efficiency Research Committee
- CUWCC Research and Evaluation Committee
- California Turfgrass and Landscape Foundation
- USBR Programs:
 - Science and Technology
 - Technology Transfer



Encourage Innovators

- Innovative Conservation Program
- H2O TechConnect (H2OTechConnect.IntroNetworks.com)
 - Connect people and ideas with resources, capital
 - Find solutions through collaboration
 - Share knowledge and expertise
 - Partner through public-private groups
 - Discover people interested in emerging technologies



(Session W-1301)



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