

This presentation premiered at WaterSmart Innovations

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Identifying Irrigation Inefficiencies

Large Landscape Irrigation Surveys
for
Non-Residential Properties

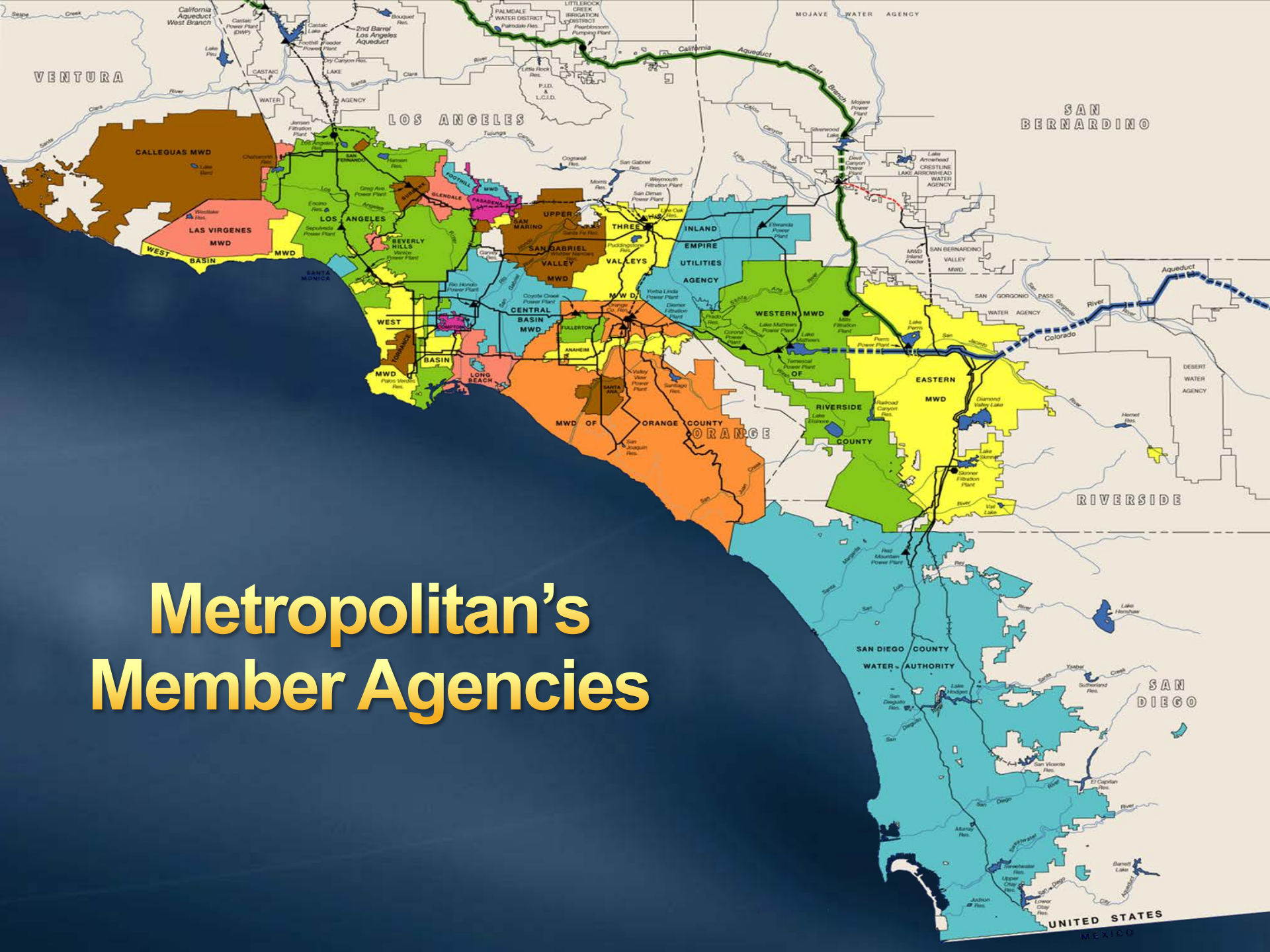


October 8, 2015

Metropolitan Water District of Southern California



- Regional water wholesaler
- Includes 6 counties
- 5,200 square miles
- 26 member agencies
- ~300 retail water agencies
- 18+ million people
- Add about 170,000 people/yr
- ~ 50% of retail water demand



Metropolitan's Member Agencies

Survey Program

- Van Dyke Landscape Architects retained by Metropolitan
- Up to \$200,000 budgeted annually (~250 surveys)
- Pre-qualified sites, 1st come/1st served
- No cost to customer
- Includes written report with recommendations
- Survey performed by Certified Landscape Irrigation Auditor (CLIA)

Eligible Properties

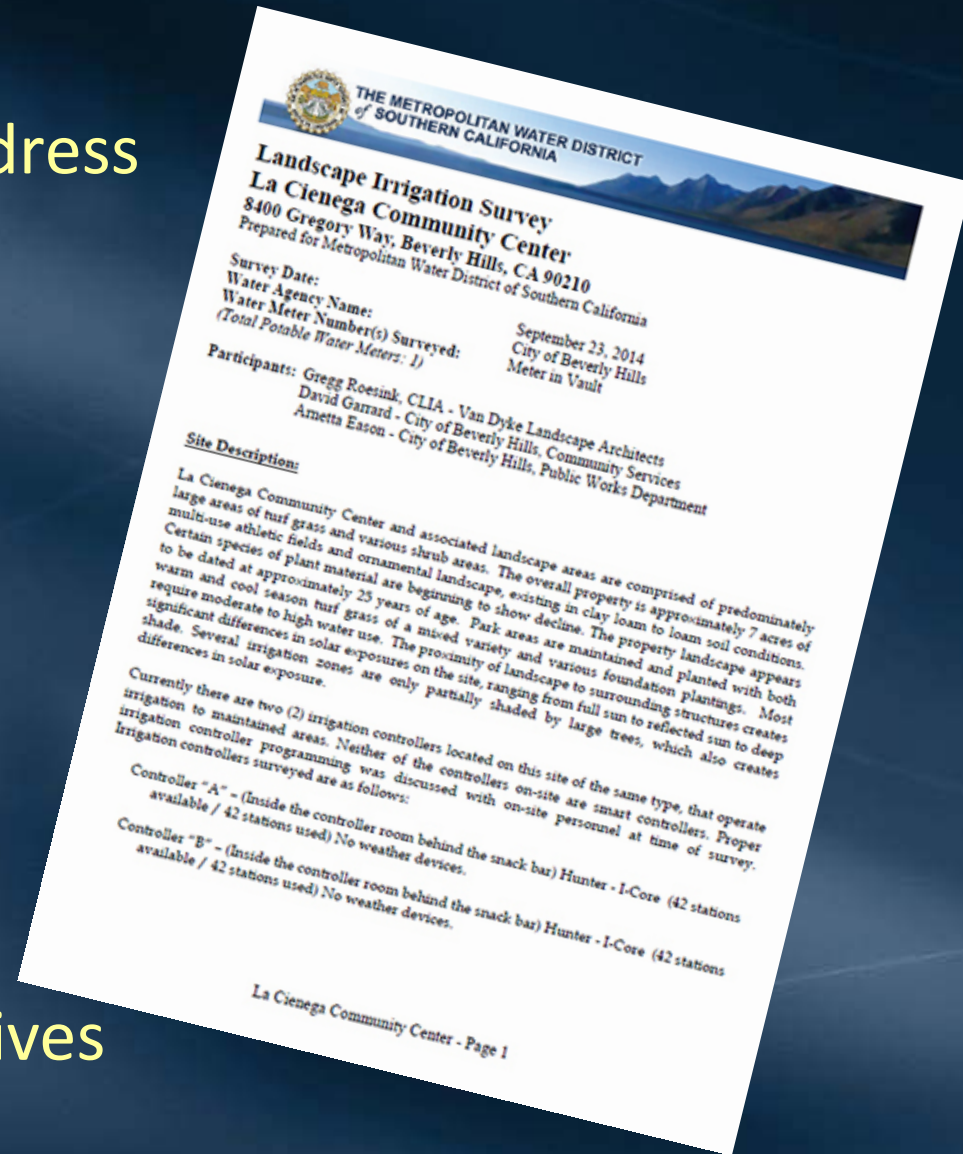
- Within MWD service area
- Minimum 1 irrigated acre
- Non-Residential
 - HOAs
 - Schools
 - Parks
 - Government facilities
 - Commercial and industrial sites

Survey Process

- Customer files online request at bewaterwise.com
- Metropolitan receives and processes request
- Metropolitan provides information to Vendor
- Vendor schedules survey with customer; representative must be present
- Vendor emails completed report to customer and follows up for questions
- Report provided to Metropolitan's member agency

Survey Report

- Report includes:
 - Property name and address
 - Retail agency
 - Site description
 - Survey Data
 - Photos
 - Recommendations to improve irrigation efficiency
 - Information on MWD/MA programs & incentives



Survey Results

- More than 600 Requests
- More than 250 not performed
 - Residential customers
 - Less than one irrigated acre
 - Outside Metropolitan's service area
 - Duplicate requests
 - Not available or declined
 - Member Agency conducts own survey
- More than 320 surveys performed
 - Applications received from 23 Member Agencies

Survey Results

- Surveys performed at:
 - HOAs
 - Public Agency sites
 - Commercial
 - Parks/Recreation
 - Churches
 - Multi-family
 - Public Housing
 - Senior Living centers
 - Historic / landmark
 - Schools
- ~50% had no smart controllers
- ~25% equipped only with smart controllers
- ~24% had mix of both

Common Water Use Findings

- High pressure



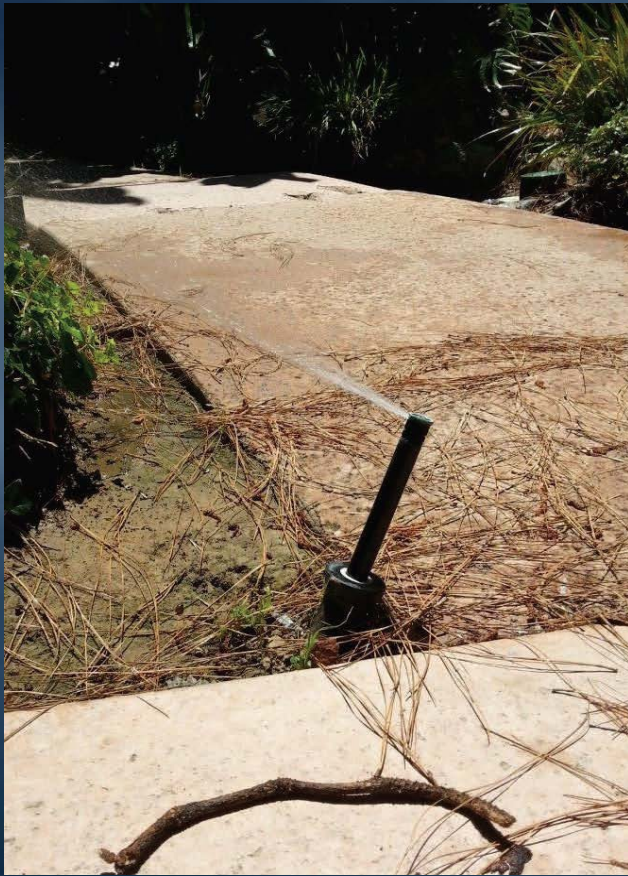
Common Water Use Findings

- Low pressure



Common Water Use Findings

- Tilted
- Arc Misalignment



- Incorrect **Pop-up** height
- **Sunken** sprinklers



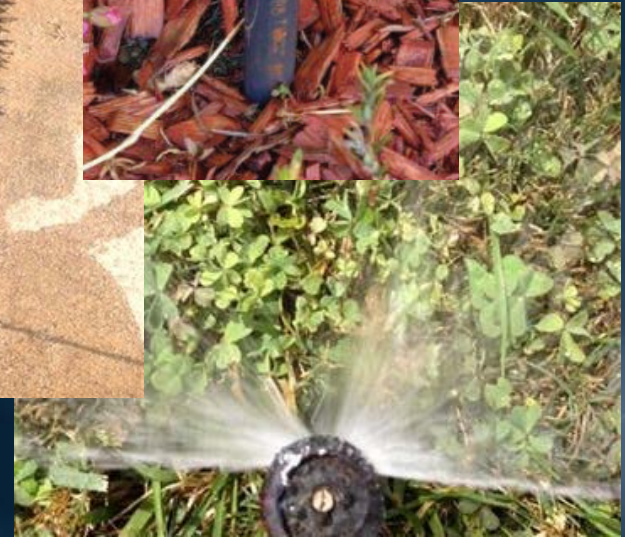
Common Water Use Findings

- *spray deflection*



Common Water Use Findings

- Broken heads
- Leaky seals and fittings
- Mixed nozzle types
- Unmatched precip rates



Common Water Use Findings

- **Compaction**
- **Excess thatch in turf areas**
- **Low head drainage**



Common Water Use Findings

- Improper sprinkler head spacing



- Incorrect zoning
- Exposure zoning



Common Water Use Findings

- **Excessive water USE** for plant material
- Non-weather based irrigation control system



Next Steps

- How many sites pursued incentives after survey?
- How many sites saving water?
- Customer service issues?
- Effect of drought messaging / State Water Board?

Questions?



Gary Tilkian
gtilkian@mwdh2o.com
(213) 217-6088