

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com

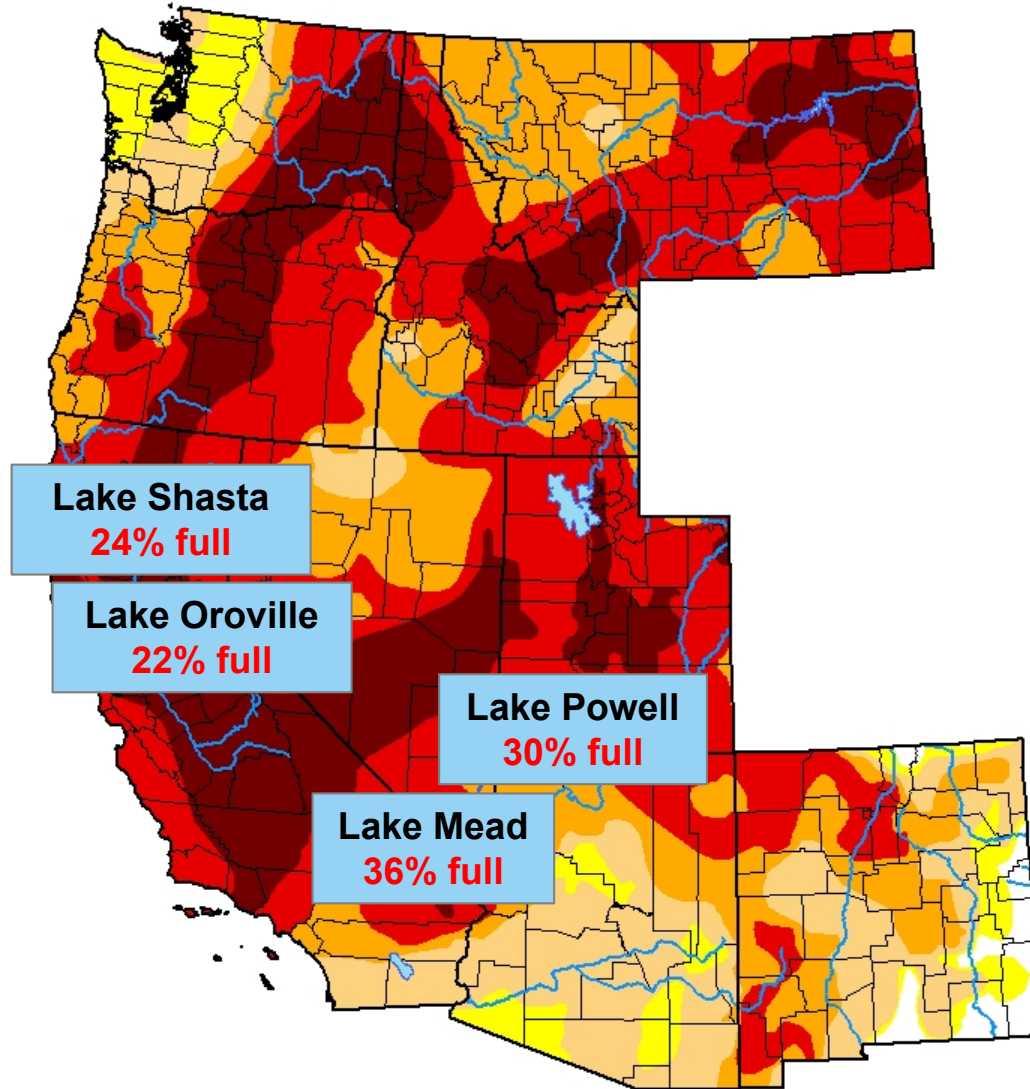




Unlikely alliances: Public-private partnership to advance water conservation in low-income housing

WATERSMART INNOVATIONS | OCTOBER 7, 2021

Drought conditions pervade the Western US, part of a multi-decade trend worsened by climate change.

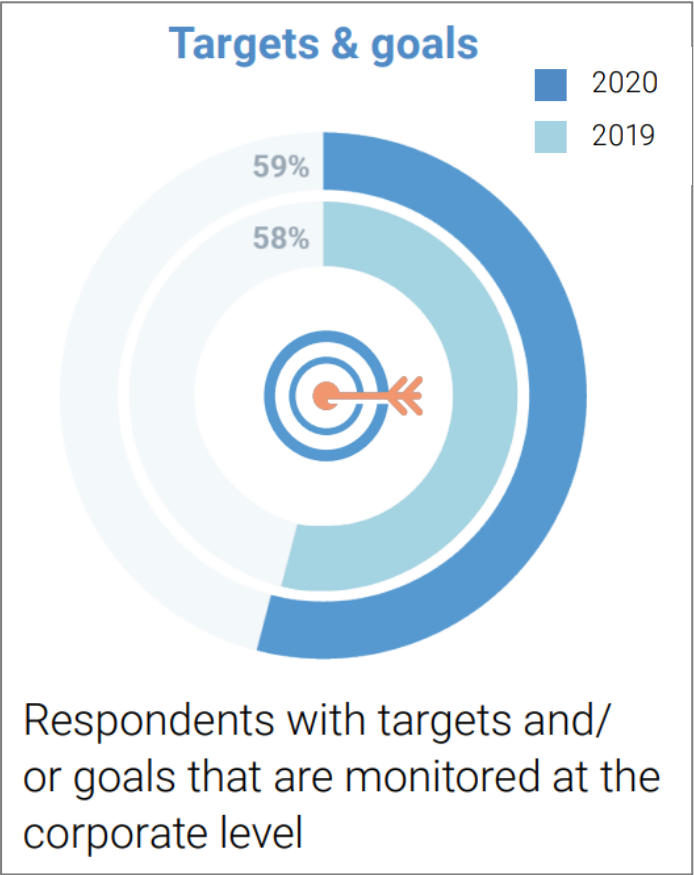


81% of the West is in severe drought.

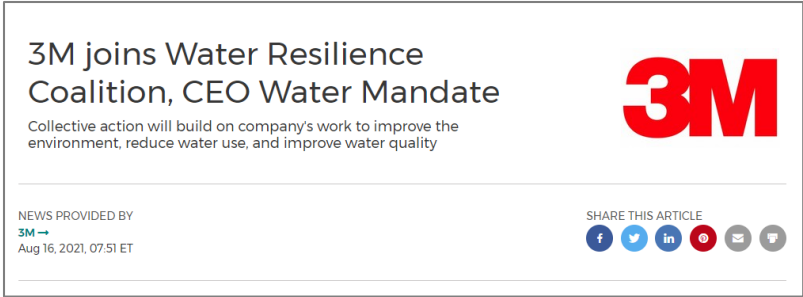
60% of the West is in extreme drought.

22% of the West is in exceptional drought.

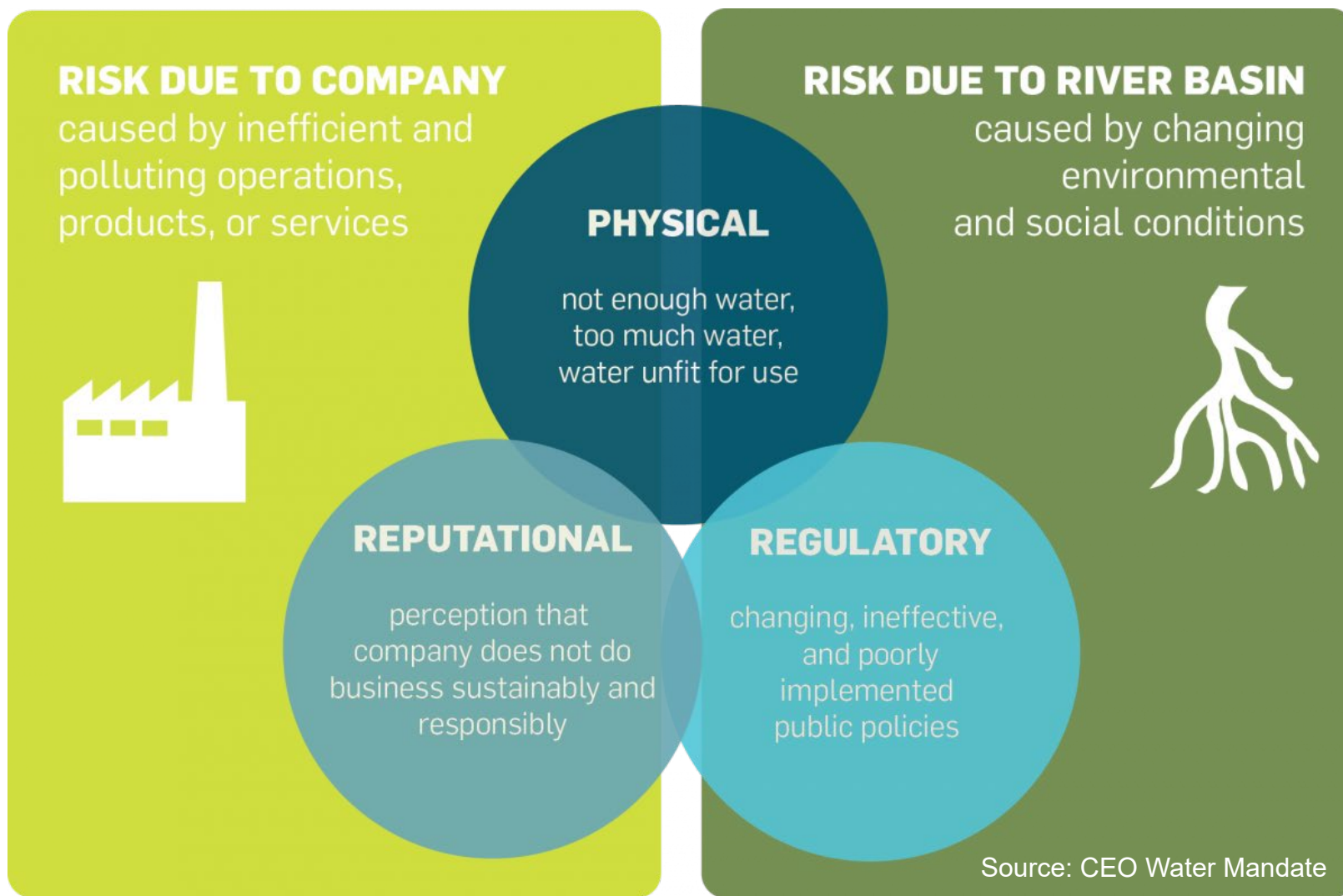
Companies are setting more ambitious water goals.



Source: CDP Water Report 2020



Companies in California face risks to business from drought.



Companies in California are collaborating on water stewardship.

CALIFORNIA
WATER ACTION
COLLABORATIVE



CWAC members work together and learn together.



www.cawateraction.org

Companies are seeking innovative projects with multiple benefits.



Water benefits



Energy benefits



Social benefits



Innovation



Partnerships

The Pacific Institute helped bring unlikely partners together.



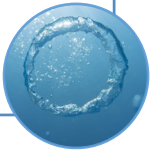
Mac Arthur Park Tower Toilet Leak Detection Project, Los Angeles



Leak detection for low-income housing in Los Angeles

- Catching hard to detect leaks

Water
benefits



- Embedded energy in LA's water

Energy
benefits



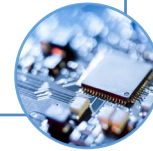
- Low-income, non-profit owned housing

Social
benefits



- Sensor Industries novel leak detection technology

Innovation

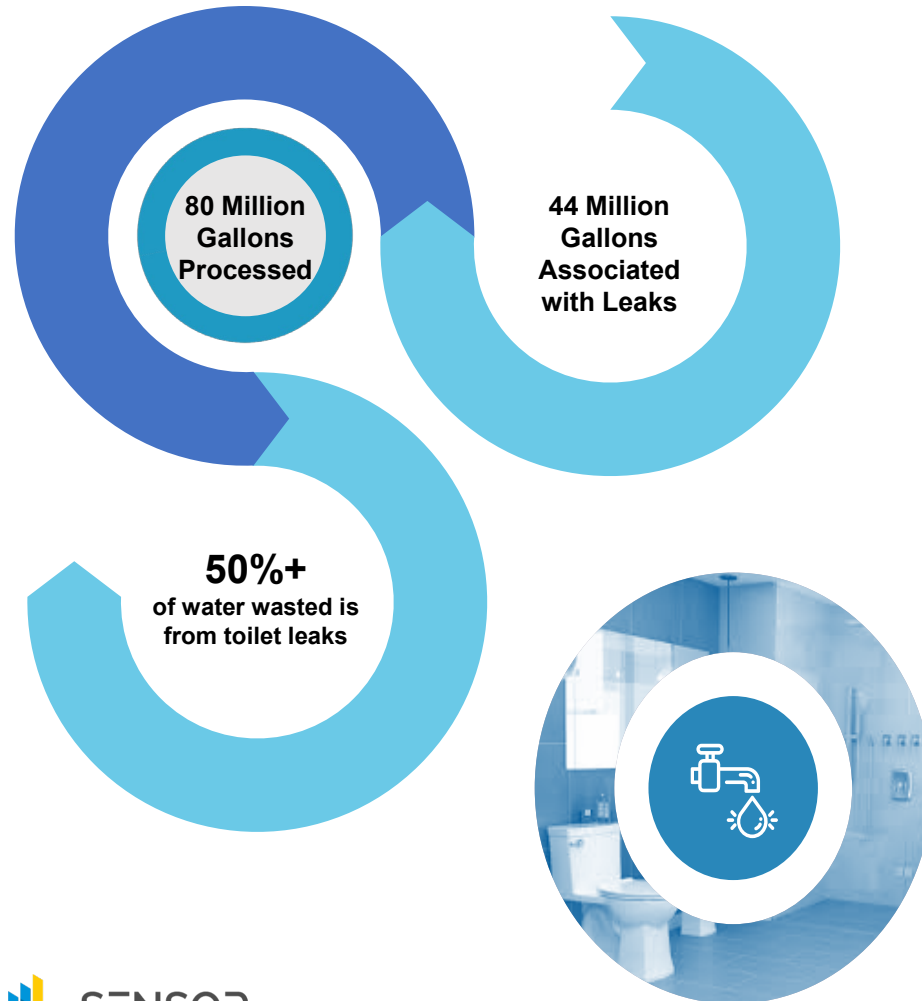


- Public, private, NGO partners all collaborating

Partnership



Sensor Industries is an Indoor Water Conservation Solution for Multifamily Properties.



Avoidable Water Waste: Leaky Toilets

Toilets leak more than you think



Leaking toilets are the #1 source of water waste for multi-unit property owners.
Easy to fix, hard to monitor.

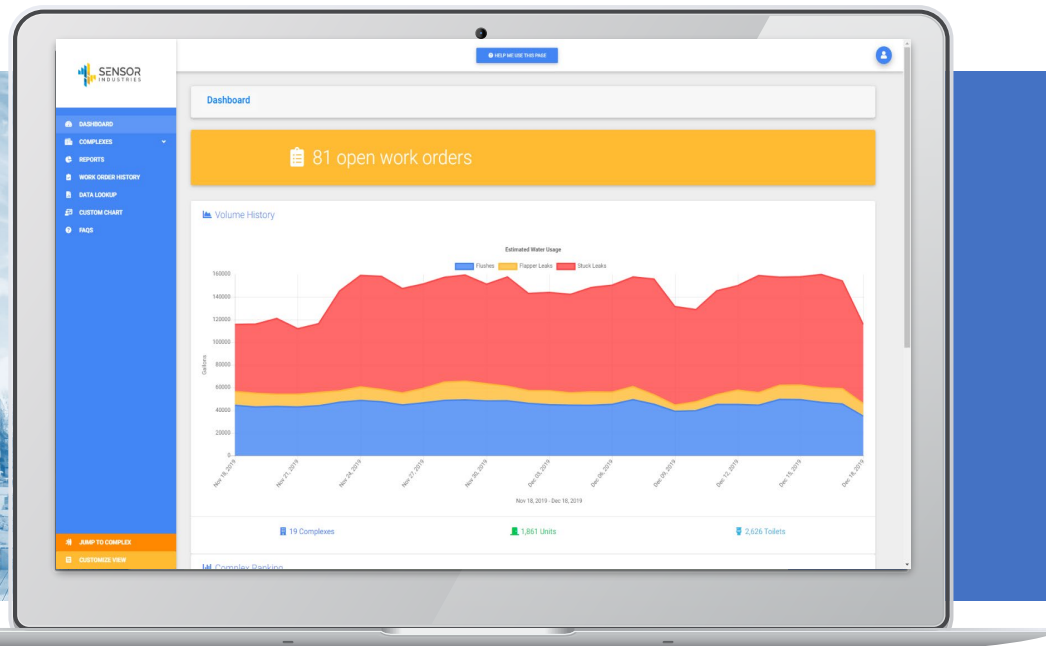
Tenants / Guests do not report toilet leaks to property managers.

A stuck open flapper valve causes toilets to leak up to 5,000 gallons per day.

More than 50% of water wasted is from toilet leaks.

The SI Solution is designed to generate results for any sized team, and any sized property.

SOLUTION



Connected Hardware Sensors + Monitoring App

Monitoring-as-a-Service (MaaS) platform
sends notifications to maintenance



Innovative, Smart Sensors

Network-connected toilet and flood sensors measure water activity and deliver actionable insights that cut expenses, increase net operating income, reduce waste, and mitigate risk.



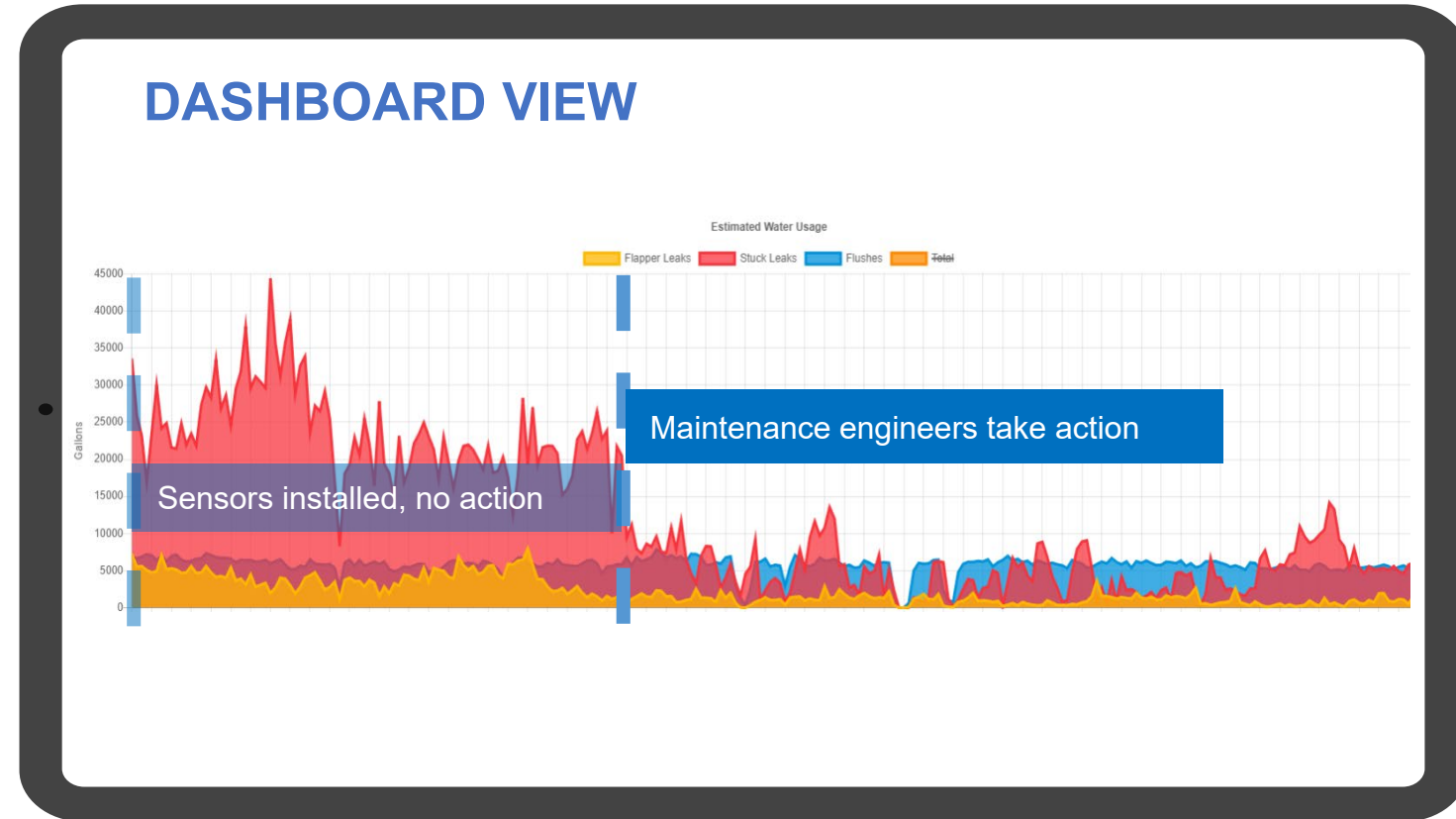
Patented
US20160350880A1

The problem has been solved for helping toilets *flush* less water, and with the SI solution, toilets will also *leak* less water.

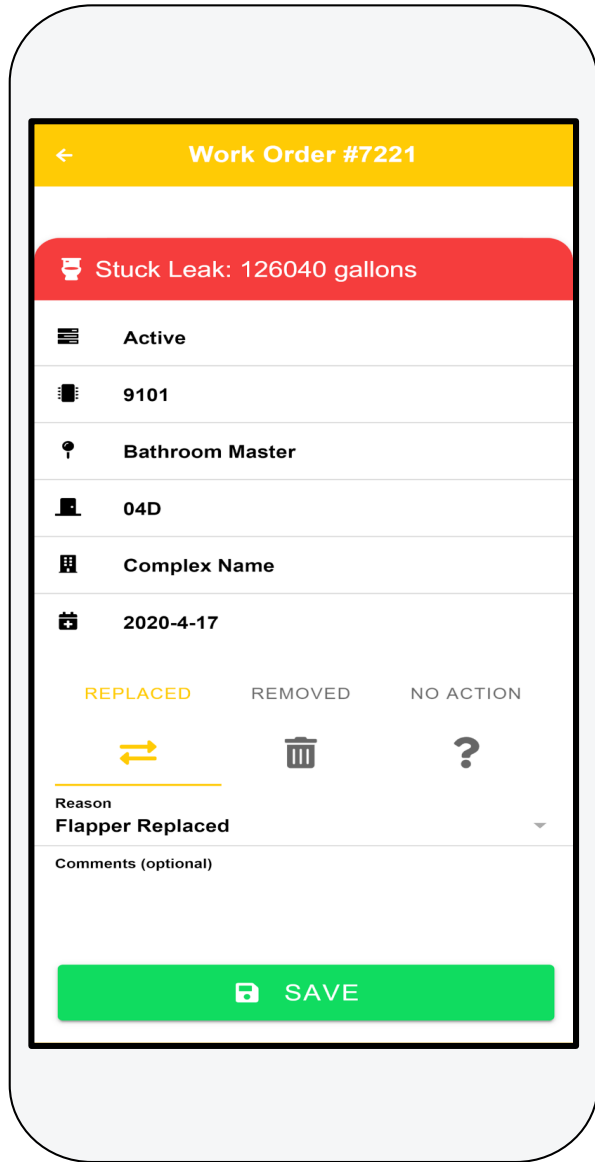
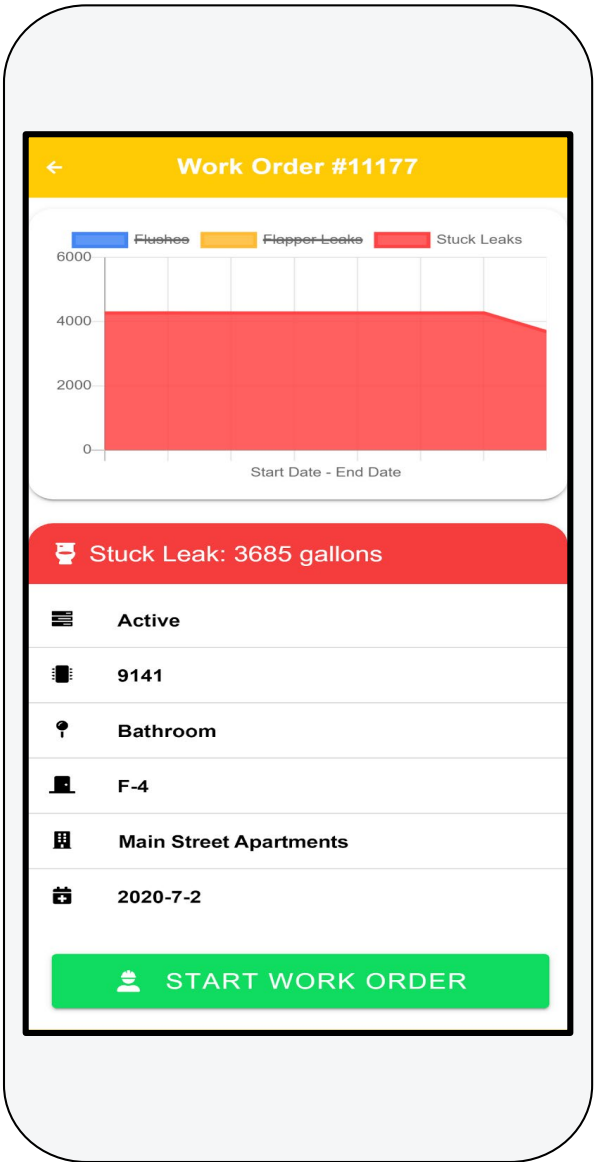
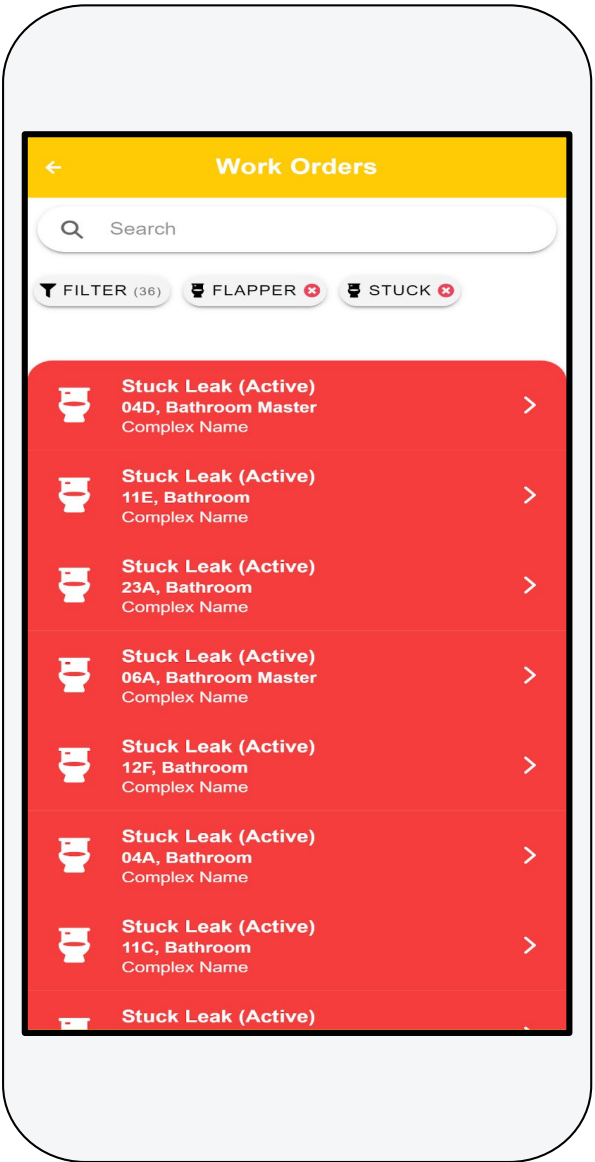
HOW IT WORKS

Smart sensors deliver real-time, actionable insights to maintenance, saving thousands each month in utility costs.

Learning immediately *where* and *when* leaks are occurring and *how* they can be resolved.



SI is dedicated to providing a rewarding and productive User Experience.



The MacArthur Park Tower project is a large installation with a large opportunity for significant water savings.



Senior Housing Water Conservation

MacArthur Park Tower



Scope: 183 Units / 184 Sensors

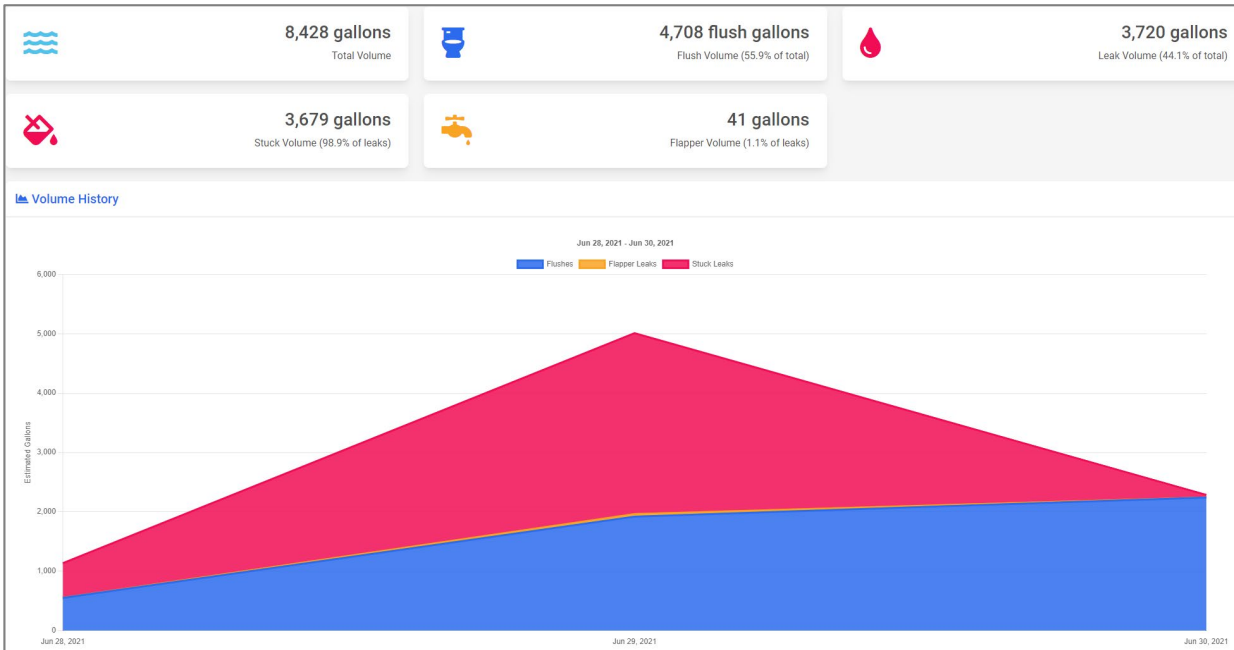
Annual Water Consumption: >6,570,000 Gallons

Estimated Annual Savings: >980,000 Gallons

Average Flush Count Per Toilet: >13 per Day



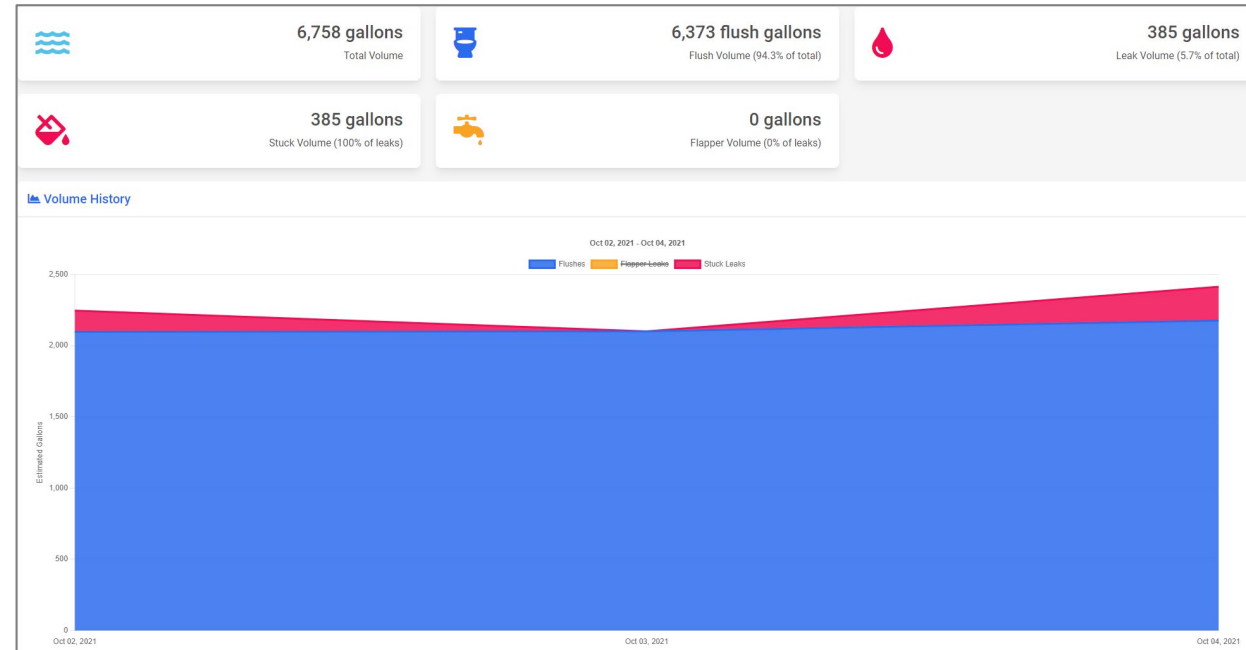
The MacArthur Park Tower project is a large installation with a large opportunity for noticeable water savings.



First Three Days of Monitoring: 6/28/21 to 6/30/21

Flush Gallons per Day: 2,354 (~56% of Total)

Leak Gallons per Day: 1,860 (~44% of Total)



Last Three Days of Monitoring: 10/2/21 to 10/04/21

Flush Gallons per Day: 2,124 (~94% of Total)

Leak Gallons per Day: 128 (~5.7% of Total)



Nicholas Benz



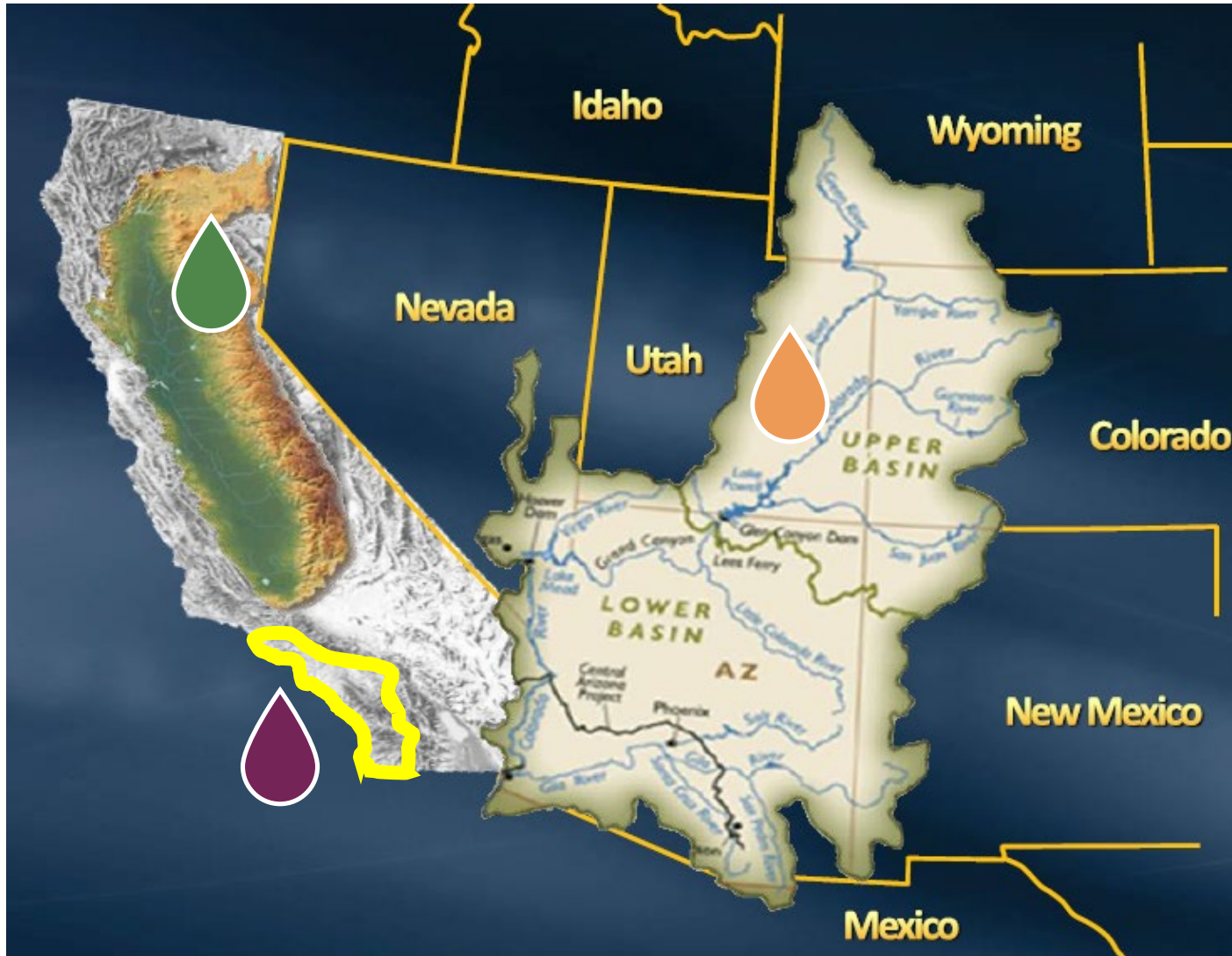
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THANK YOU



Metropolitan Water District



Colorado River Supplies



CA State Water Project Supplies



Local Supplies



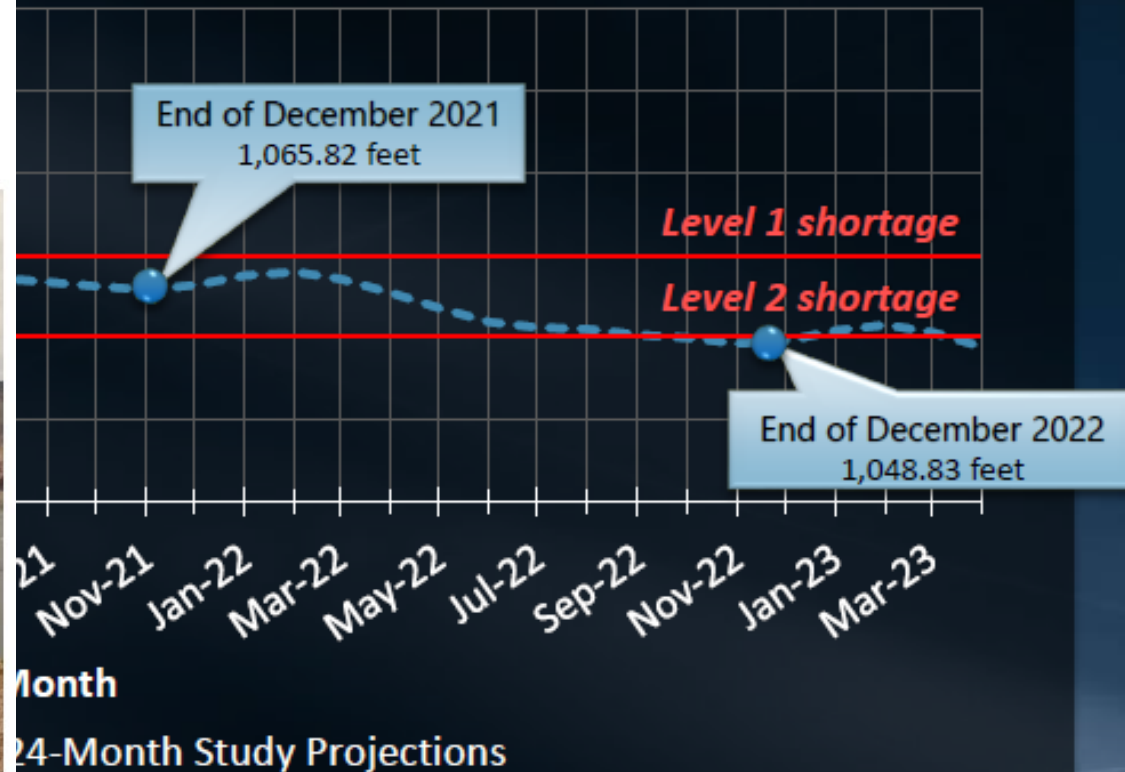


USBR's 24-Month Study Continues to Project Declining Lake Mead Elevation

First-Ever Colorado River Water Shortage Declaration Spurs Water Cuts in the Southwest



Hoover Dam Credit: Pixabay/CCO



May 24-Month Study



Bleak Outlook for State Water Project



April 2021



July 2021

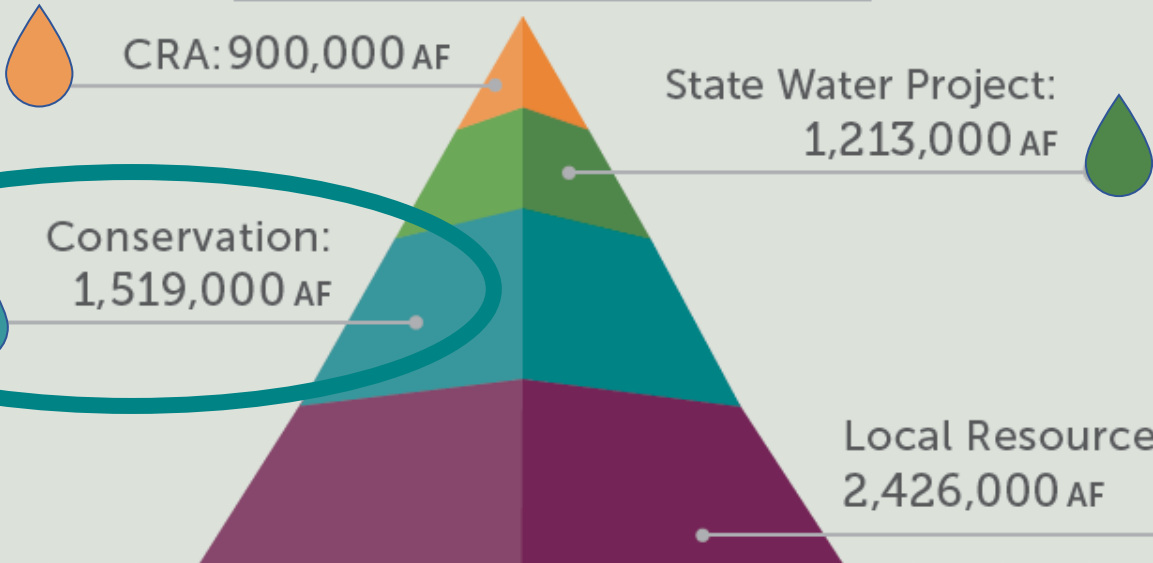
- Anticipating a zero percent initial 2022 SWP Allocation
 - Oroville storage may end the year at record low levels
 - Competition for storage in San Luis Reservoir
 - Roughly even chance of 20 percent SWP allocation in 2022

Metropolitan Water District

RELIABILITY TARGETS

The 2015 IRP Update is a plan to provide water supplies under a wide range of potential future conditions and risks.

Meeting 2040 Demands



Based on normal conditions. Wet and dry years will vary.

WATER TOMORROW

Integrated Water Resources Plan 2015 UPDATE

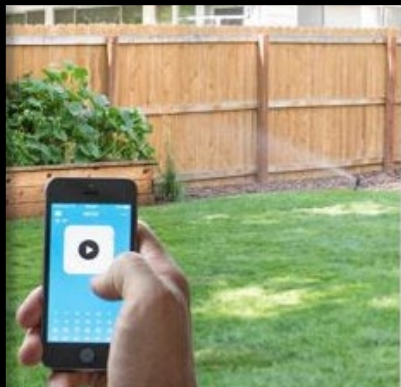
Report No. 1518



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



- Turf Replacement Program
- Innovative Conservation Program (ICP)
- Commercial Landscape Surveys
- Device Rebate Programs
- Water Savings Incentive Program (WSIP) ←
- California Friendly® Landscape Classes (Residential)
- Member Agency Programs



Metropolitan Water District

Water Savings Incentive Program



MF Leak Detection



- Hard-to-Reach communities
- Low-income/DAC
- Collaboration

Pump-Pod DRAFTS Unit



Multiple
Fire Departments
~\$36K / ~171 AF
(>6 Mgal / yr)

UC Irvine



Medical Center RO
\$4K / 20 AF
(3.2 Mgal / yr)

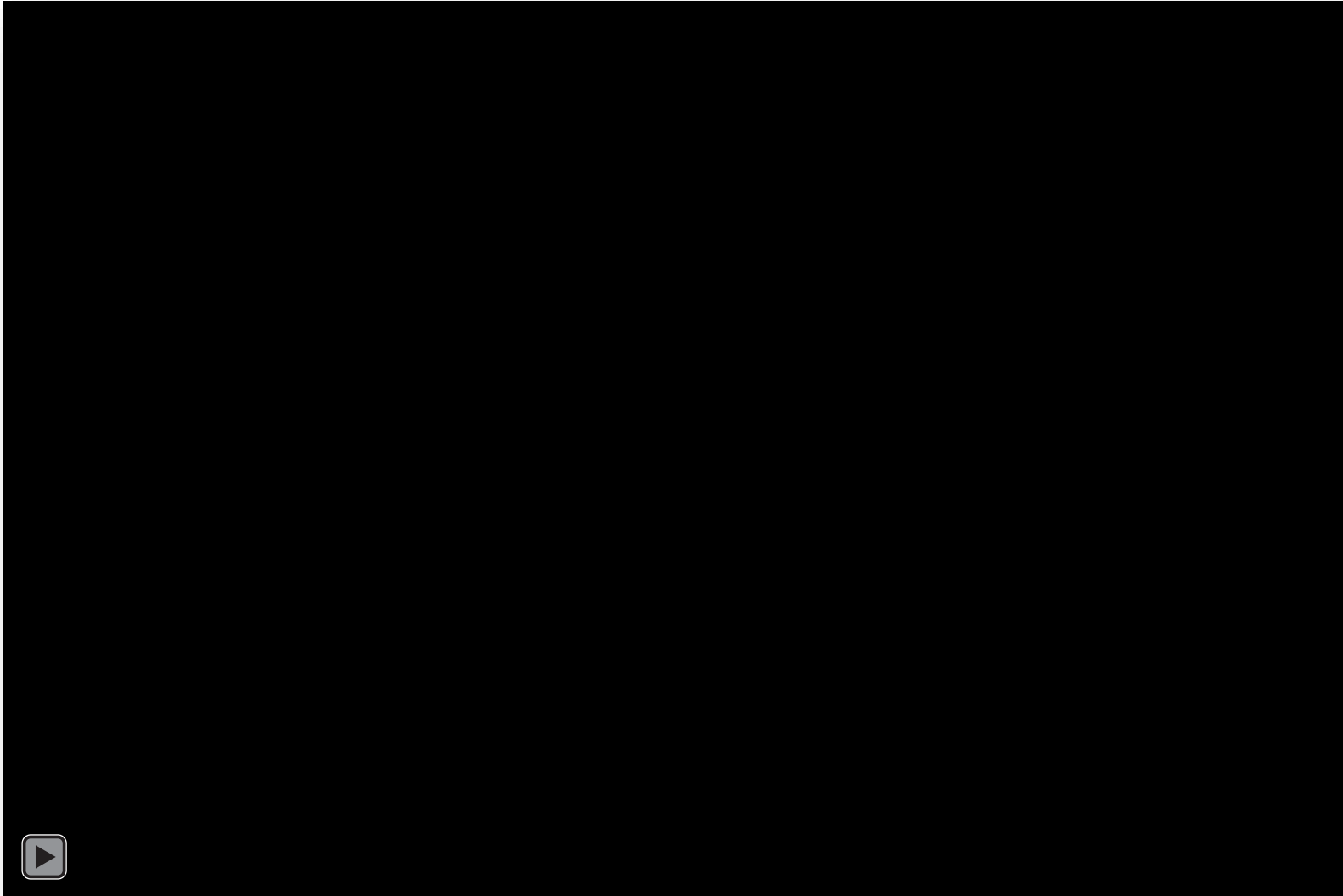
Los Angeles County Arboretum



Irrigation System Upgrades
\$141K / 650 AF
(35.5 Mgal / yr)

- “Pay for performance”
- Incentives for non-residential, customized projects
- Up to \$0.60 / 1,000 gal saved per year (up to 10 yrs)

Eddie Corwin, Sustainable Operations Program Manager at Google



Shannon Quinn, Global Water Stewardship Leader at Procter & Gamble





Thank you!

Contact: Cora Kammeyer, ckammeyer@pacinst.org

