



CALIFORNIA  
**WATER EFFICIENCY  
PARTNERSHIP**

A Chapter of the *Alliance for Water Efficiency*

# CaIWEF Updates

# What we'll cover today



**Organization**



**Advocacy**



**Programs**



**Publications**



**Tools**



**Events**

# CaIWEP Grew in 2020

25

**New & Returning  
Members**

12

**New CaIWEP  
Collaborators**

1

**New CaIWEP  
Staff**

**96%** Member Retention

# 2021 Board Members & Officers



## CalWEP welcomes three new board members in 2021:

- Elizabeth Lovsted, Water Resource Manager, San Diego County Water Authority
- Sarah Musiker, Director of Utility Relations, Flume
- Jenyffer Vasquez, Water Policy & Resources Analyst, West Basin Municipal Water District


## Executive Committee for 2021:

- Board Chair: Justin Finch, Mesa Water District
- Vice Chair: Rob Whipple, Western Municipal Water District
- Secretary-Treasurer: Lisa Morgan-Perales, Inland Empire Utilities Agency

# New & Improved Programs



Direct Distribution  
(Pilot programs)



**WaterWatch**  
Unlock the potential of  
your water data



**WATERVIEW**  
Water Conservation Software





# AWE Tracking Tool Updates

- The National Version of the Tracking Tool should be finished in the first half of 2021. Beta testing should begin in the next month or so.
- The California Version should be ready at the same time, with an initial methodology (water use objective calculator) for the CA framework. *Then when regs are finalized by the state it can be updated.*
- Both versions will have a newly integrated water loss management model
- Both versions will have new functionality for fixture stocks
- The library of measures will be update and the interface will have a new look and feel.



# Implementation Guides

## CII GUIDES

Search CII Guides

SEARCH



CII Partnerships and Funding Sources

- Partnerships
- Additional Non-Monetary Opportunities to the Commercial Sector
- Lessons Learned
- Guidance and Documents
- Examples from Members



CII Codes and Standards

- Current Codes and Standards (updated as of November 2020)
- Historical Background on Codes and Standards
- Guidance and References



CII Surveys

- Basic Steps for Developing a CII Water Survey Program
- Lessons Learned
- Guidance Documents and Examples

### Utility Ops

- Building a Team with a Conservation Coordinator
- Create or Renew a Plan/Strategy
- Know Your Regulatory Environment
- Water Waste Prohibition

### Commercial, Industrial, & Institutional

- Surveys
- Incentives
- Codes and Standards
- Partnerships

### Residential

- Indoor surveys
- Incentives
- Single Family and Multifamily Programs
- Codes and Standards

### Public Education

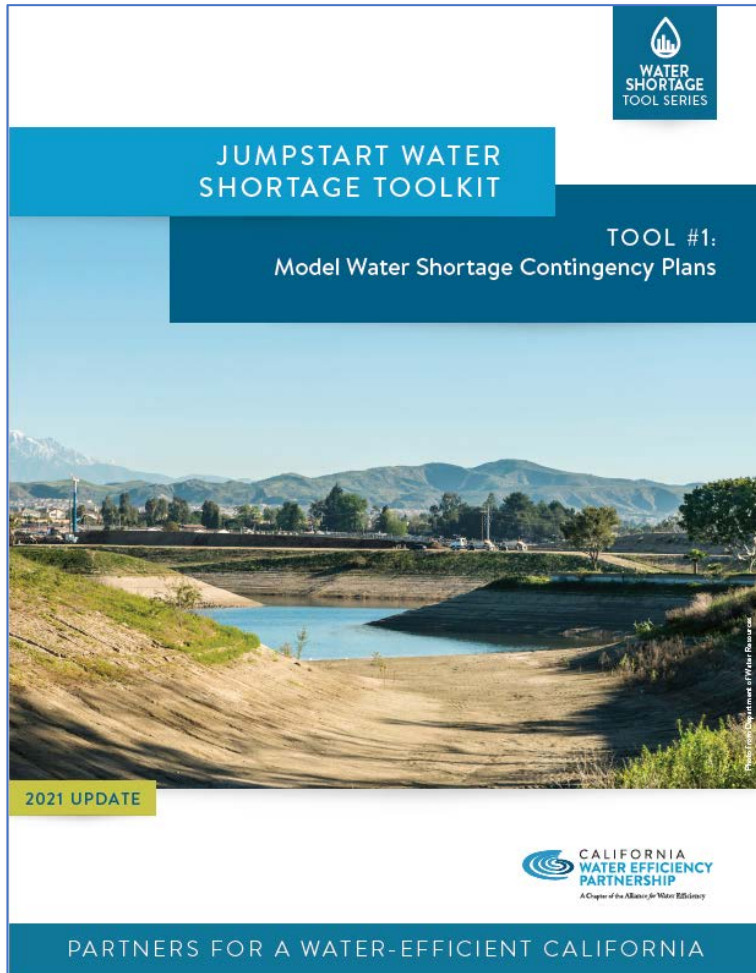
- Public Outreach Programs
- School Education and Outreach
- Est. School Education Focused Partnerships
- School Resources

### Landscape

- Landscape Surveys
- Landscape incentive Programs
- Landscape Technical Assistance
- Water Budgets



# Drought Toolkit Update



- CalWEP is currently updating the 2015 *Jumpstart Water Shortage Toolkit*.
- We're starting with Tool #1 to reflect new requirements for urban water suppliers' 2020 Urban Water Management Plans.
- The update will be available to members in early February with a companion webinar to also be scheduled that month.





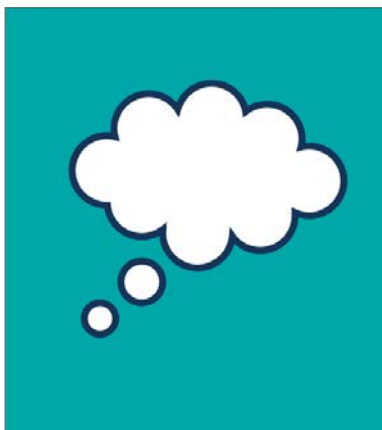
# Home Water Works (AWE)



- Improvements to Home Water Works Website
  - Mobile Responsiveness
  - New graphics in the calculator
  - Spanish translation



# Advocacy



- CalWEP has signed a contract with a technical policy advisor to help the organization increase advocacy related to the implementation of SB 606/AB 1668
- CalWEP will continue to work with partners and members to ensure our member's voices are being heard.



# 2020 Publications

**2**

**Major Reports  
Released**

**2**

**FAQs  
Released**

**7,251**

**English PPH Sold**

**1**

**Landscape  
Conversion Tool**

**2,480**

**Spanish PPH Sold**

# LANDSCAPE CONVERSION CRITERIA TOOL

A SPECTRUM APPROACH TO TURF REBATE PROGRAMS

LANDSCAPE CATEGORY	Required Prior to Modification	Initial Stage Water Savings Single Benefit (Minimum Requirement)	Moderate Progress	Advanced Progress	Leading Progress Multi-Benefits (Max)	Enforcement or
WATER						

## LESSONS LEARNED

Dedicated Irrigation Meter Management for CII Accounts



## THE MULTIPLE BENEFITS OF WATER CONSERVATION

Defining the environmental and social benefits of landscape transformation programs

MAY 2020

## MULTI-BENEFITS OF LANDSCAPE TRANSFORMATION

ENERGY AND GREENHOUSE GASES

### Introduction

Maintaining landscapes requires energy, which results in releases of greenhouse gases (GHGs). Mowing lawns is fuel-intensive, and the decomposition of green waste, like grass clippings, releases GHGs. The California Air Resources Board (CARB) found that the population of lawn equipment with small engines exceeds the number of light-duty passenger cars by 3 million (16.7 million vs. 13.7 million respectively), and further, running a lawn mower for an hour is the equivalent of driving 300 miles. Collectively, the use of this equipment results in over 50 tons per day of smog-forming emissions, and by 2031, CARB estimates that emissions from small engines will be more than double that of passenger cars (CARB 2017).

In addition to direct energy used for maintaining landscapes, energy is required to pump, treat, and deliver water to landscapes. This is often referred to as the "energy intensity of water," or the energy to pump, treat, and deliver a specific volume of water. For example, the Pacific Institute found energy intensities for four Sacramento County water agencies to range between 300 to 700 kWh/AcF (Heberger 2013). Therefore, using water saves energy. Spang et al. 2018 found that during the 2015 drought, energy savings in California were 11% higher for state-wide water conservation measures compared to all energy efficiency programs run by Investor Owned Utilities during that time.

Landscapes that integrate the watershed approach in both design and maintenance can have a significantly smaller carbon footprint than traditional landscapes. They require less inputs (i.e. water, fuel, and fertilizers), reduce the amount of methane-producing green waste from entering landfills, and they can also cool the air. For example, the City of Santa Monica demonstrated water savings of 83% and green waste reduction of 56% over the course of 9 years for a sustainably designed landscape in comparison to a traditional turf-dominant landscape. Maintenance hours were also reduced by 65% and included discontinued use of lawn mowers. The Alliance for Water Efficiency conducted a survey of more than a dozen agency landscape transformation programs and found a 7% to 39% reduction in outdoor

Irrigation (AWE 2019). Other indirect energy benefits include:

- rain gardens, bioswales and permeable pavements that help retain and infiltrate stormwater to reduce the need for onsite stormwater pumping;
- carbon sequestration by woody perennial shrubs and trees that help offset GHG emissions;
- vegetative cover that reduces summer temperatures and in turn the energy demand for indoor cooling (Dimoudi and Nikolopoulos 2019); and,
- GHG emission reductions can help businesses achieve their sustainability or corporate goals (Cooley et al. 2019).

### Trees



Landscape trees can help reduce household energy demand.

Urban trees are responsible for creating microclimates and help to significantly reduce summer time air temperatures. By shading buildings, trees help reduce the solar heat gain on windows, walls and roofs and they transfer moisture into the air to help increase evaporative cooling (Dimoudi and Nikolopoulos 2019). The summer of 1992 Akbari et al. discovered shade trees at two Sacramento homes gave a 30% reduction in cooling energy. Additionally, peak energy demand was also reduced by 0.8 kW per household. In a later study, a 2001 study found that for most hot cities, shading a building can save between \$5 per 100m<sup>2</sup> of roof area annually.

## CALIFORNIA EDITION



## practical plumbing HANDBOOK

WITH IMPORTANT WATER-SAVING TIPS



## EDICIÓN DE CALIFORNIA



## guía práctica DE PLOMERÍA

CON CONSEJOS PARA AHORRAR AGUA



# CalWEP FAQ

AUGUST 30, 2020

Providing Leadership, Collaboration, and Expertise on California's Unique Water Efficiency Issues

## FACT SHEET ON FRAMEWORK RESIDENTIAL OUTDOOR OBJECTIVE

### Overview

SB606 and AB680 passed in 2014, intended to "make water conservation in California more efficient" by providing a framework for water conservation and efficiency. The bills direct water agencies (Department of Water Resources (DWR) and local Water Resources Control Board (WTRCB) to develop overall water efficiency targets for each retail water agency (over 1,000 interconnected) based on the combination of indoor water use, outdoor water use, and water loss. This FAQ document is focused on the outdoor

## FAQ California Appliance Efficiency Regulations CA CODE OF REGULATIONS: TITLE 20 SECTION 1602(X)1 SPRAY SPRINKLER BODIES

EFFECTIVE: OCTOBER 1, 2020

1. What does Title 20 require for spray sprinklers sold in California?  
Beginning October 1, 2020, all Spray Sprinkler Bodies (SSB) must meet specific performance requirements and contain the proper markings in order to be legally sold in California. Further, all products manufactured on or after this date must be certified to the California Energy Commission's (CEC) appliance efficiency database known as the "Modernized Appliance Efficiency Database" (MAEDbS) before they can be offered for sale in California. The manufacturer is responsible for testing basic appliance models.
2. What are the benefits of pressure regulated spray bodies?  
The CEC estimates that annually there are over 30 million SSBs sold in CA for turf irrigation where some of these SSBs are pressure regulation and some are not. Pressure regulation spray bodies can reduce water waste caused by misting and overspray. Pressure regulation can also help improve distribution uniformity.
3. What are the specific performance requirements for SSBs?  
Compliant SSBs will contain pressure regulating devices and shall adhere to a flow rate and pressure performance criteria including a minimum outlet pressure listed under Section 2 of the [WaterSense® Specification for Spray Sprinkler Bodies Version 1.0, September 21, 2017](#).
4. How can products be listed on the Modernized Appliance Efficiency Database (MAEDbS)?  
Candidate SSBs must be tested to demonstrate adherence to the performance criteria. The approved test method is provided under Appendix B of the [WaterSense® Specification for Spray Sprinkler Bodies Version 1.0, September 21, 2017](#). Testing must be conducted by an approved third-party test lab. You can find more information about the MAEDbS [here](#).

*continued on reverse*

### CEC DEFINITIONS

#### SPRAY SPRINKLER -

A device used to irrigate landscape that consists of a spray sprinkler body and a nozzle or orifice and discharges water through the air.

#### SPRAY SPRINKLER BODIES -

The exterior case or shell of a sprinkler incorporating a means of connection to the piping system, designed to convey water to a nozzle or orifice. It does not contain components to drive the rotation of the nozzle or orifice during operation and locks an integral control valve.

#### SPRAY NOZZLE -

The spray nozzle controls the volume of discharge, spray pattern as well as the area covered (shape) by the distribution of the water, and the droplet size.





# AWE Cooling Tower Update

- Project Kicked off in January 2019
- Cooling Tower Estimating Model (CTEM) and Guide for Identifying Cooling Towers Being Finalized
  - PAC Beta-Testing/Review Concluded 2/21/2020
  - Finalizing copyright and Terms of Use
  - Launch in January
- Task 5 underway: *Determine Water Savings Potential of Implementing Alternative Cooling Technologies.*
- ComEd is commissioning a new task focused on direct energy savings





# Events by the Numbers

10

**Virtual Events  
Held**

350+

**Individuals Engaged**

1

**Online CalWEP  
Social Event**



# THE YEAR OF ZOOM EVENTS





# Peer to Peer: Reimagined

283

**Registrations for Peer  
to Peer: Reimagined**

24

**Sessions held over  
three days**





# Presentations & recordings on MyCalWEP

## Day One: Water Efficiency in 2020 and Beyond

### Welcome to Peer to Peer: Reimagined



**Tia Leberz**  
Executive Director External Affairs,  
CalWEP



**Greg Bundesen**  
Board Chair, CalWEP



**Sarah Foley**  
Executive Director Operations,  
CalWEP

🕒 9:00AM – 9:20AM on Tuesday, December 8

Format: Panel Discussion

▶ [Join via the Zoom Webinar link sent to your email](#)

Click on presenter for their bio or read all bios starting on [page 19](#).

### The State of Water Efficiency in California



**Greg Bundesen**  
Board Chair, CalWEP  
(moderator)



**Heather Cooley**  
Policy Director, Pacific Institute



**Joaquin Esquivel**  
Chair, State Water Resources  
Control Board



**Mary Ann Dickinson**  
President and CEO, Alliance for  
Water Efficiency



**Karla Nemeth**  
Director, Department of Water  
Resources

🕒 9:20AM – 10:40AM on Tuesday, December 8

Format: Panel Discussion

▶ [Join via the Zoom Webinar link sent to your email](#)

From implementation of California's new efficiency legislation, SB 606/ AB 1668, to Governor Newsom's Water Resilient Portfolio, to potential threats on WaterSense and standards on the national level, this session will dig into these major issues and feature top experts.

- ▶ [Water Resilience Portfolio](#)
- ▶ [Department of Water Resources WUE Homepage](#)
- ▶ [Pacific Institute Report: An Assessment of Urban Water Demand Forecasts in California](#)
- ▶ [Alliance for Water Efficiency: Use and Effectiveness of Municipal Irrigation Restrictions During Drought study](#)
- ▶ [Alliance for Water Efficiency: Showerheads and Clothes Washers Rules and Regulations](#)

### Embracing Change and Transformation: What 2020 has taught us



**Kristeen Farlow**  
San Bernardino Valley Municipal  
Water District (moderator)



**Stephanie Corso**  
Co-Founder, Rogue Water Lab



**Sarah Heitzman**  
Chief Revenue & Strategy Officer,  
Rachio



**Joone Lopez**  
General Manager, Moulton Niguel  
Water District

🕒 10:55AM – 12:00PM on Tuesday, December 8

Format: Panel Discussion

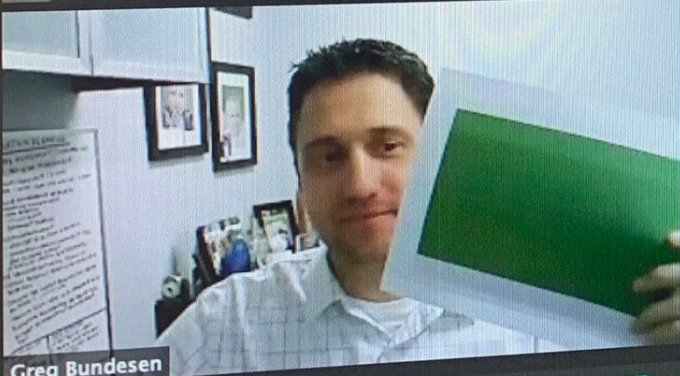
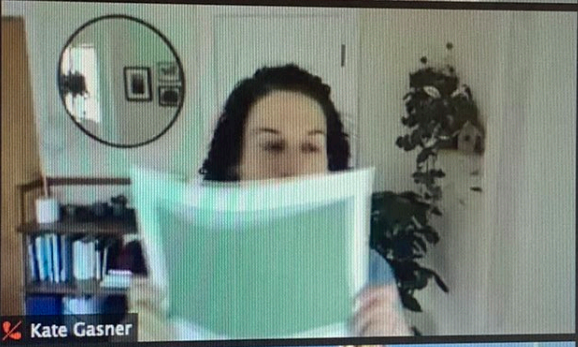
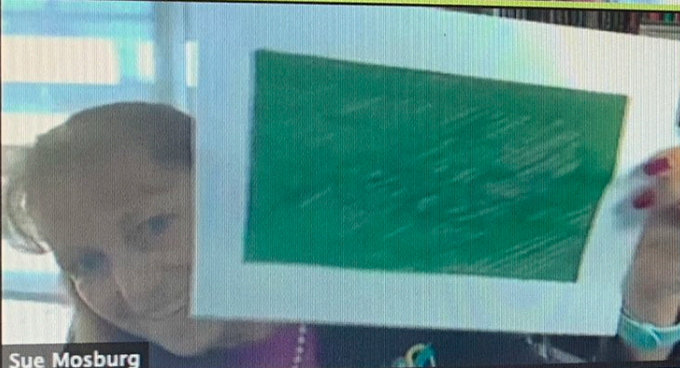
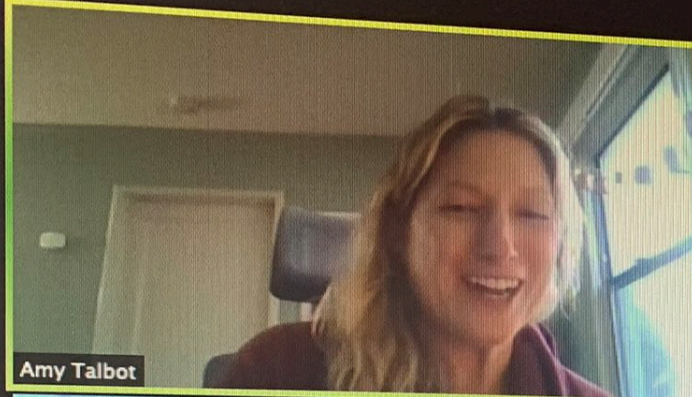
▶ [Join via the Zoom Webinar link sent to your email](#)

2020 was unlike anything we could have imaged, from COVID 19 shutting down business as usual, to social uprisings highlighting inequalities in our country. Hear perspectives from professionals representing various segments of water conservation on how this pivotal year has fundamentally changed operations, how we've all learned to adapt, and the new challenges and opportunities that have arisen out of a global pandemic.

- ▶ [CalWEP AWE, and Maddaus Water Management: Tips & Tricks for Working Remotely](#)
- ▶ [CalWEP's How to Host an Engaging Webinar](#)

Recording...

Zoom Webinar



View

Participants (205)

Panelists (11)

Attendees (194)

Polls

Water Loss #5 in Progress

00:00:20

Attendees are now viewing questions 75 of 194 (38%) voted

1. State and federal governments should provide funding and technical assistance to support local agencies' distribution systems.

Agree	(71) 95%
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Disagree	(4) 5%
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End Poll

Invite

Mute All

More

Start Video

Participants 205

Chat

Share Screen

Polling

Pause/Stop Recording

Q&A

More

End

Which of the following are you interested in? 00:00:31

Attendees are now viewing questions 35 of 64 (54%) voted

**1. Which of the following are you interested in? (Select all that apply.) (Multiple Choice)**

Unique branding for CA native plants	(8/35) 23%
Digital and point-of-sale marketing	(4/35) 11%
Educational resources for nursery professionals	(7/35) 20%
Customer-facing CA native media kit	(10/35) 29%
All of the above	(27/35) 77%

End Poll



Krista Guerrero



Lindsey Stuvick



CNPS Ann-Marie (she)



Joni German

Krista Guerrero, M...  
Ann-Marie Benz, C...

1:00PM - 2:00PM on Thurs...

JOIN WORKSHOP



# Virtual Events in 2021

**Save the dates in your calendars today:**

**CalWEP Spring Plenary**

March 10, 2021 | 10:00 AM-12:00 PM

**Peer to Peer 2021**

June 2-3, 2021

**CalWEP Fall Plenary**

September 21, 2021 | 10:00 AM-12:00 PM

**CalWEP Winter Plenary**

December 9, 2021 | 10:00 AM-12:00 PM



Questions?