

# PEER TO PEER 2019

— Anaheim —



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**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

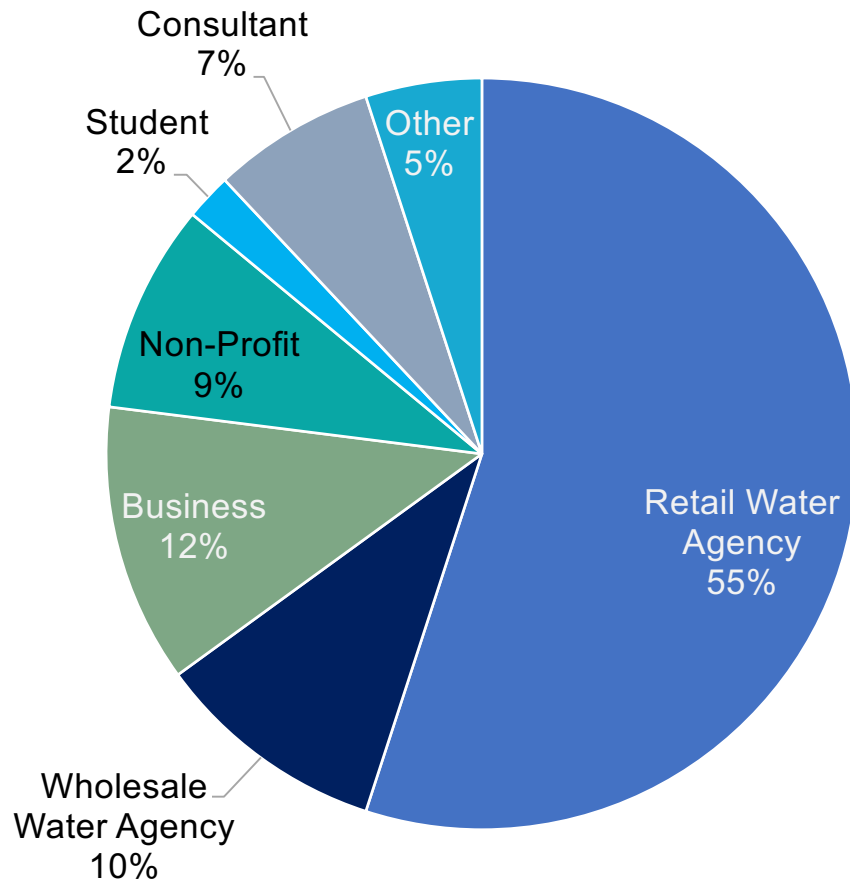


# ATTENDEE PROFILE

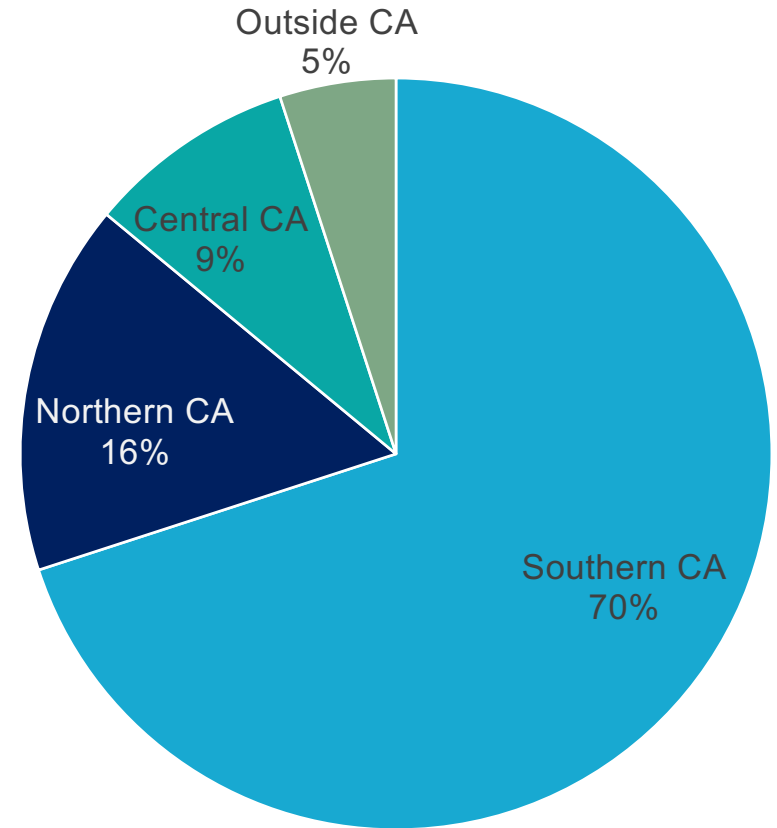
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*On May 15th, 228 water conservation professionals converged on Disney's Paradise Pier Hotel*

## How did attendees classify themselves?



## Where did attendees come from?



**55% of attendees indicated it was their FIRST time at Peer to Peer!**

# DISNEYLAND TOUR



## Rise and Shine!

65 people met at 4:30 a.m. to take a 3-mile walking tour of Disneyland. They explored the water efficient practices the park uses to save approx. 10 million gallons of water while ensuring a magical experience for millions of park-goers annually! From soil moisture sensors to ET scheduling to flow sensor upgrades, Disneyland staff's commitment to water conservation was evident. This tour will not soon be forgotten by attendees!



# KEYNOTE SPEAKERS



## Bill Patzert, NASA JPL (retired)

Recently retired from a 35-year career where he was known as NASA JPL's 'Prophet of California Climate,' Bill Patzert kicked off Peer to Peer 2019 with a strong message:  
**In California, Drought is FOREVER.**

Following patterns of CA data and exploring increasing threats to our climate, the tone of the conference was set. Water conservations in California really matters.

*"The future ain't what it used to be" – Yogi Bera*

## Karen Guz, San Antonio Water System

As the Water Conservation Director of the San Antonio Water System (SAWS) Karen oversees a robust and growing department that sees conservation as a source of supply and saved more than 1.3 billion gallons of water in 2018.

To reach these impressive numbers, Karen detailed a sampling of SAWS' innovative programs including their outdoor irrigation campaigns that target customer behavior and knowledge through strategic outreach and creative partnerships with non-profits and web-based platforms.



# PLENARY PANEL

## FRAMING THE FUTURE OF WATER CONSERVATION

**Mary Ann Dickinson**, CalWEP (Moderator)

**Peter Brostrom**, Department of Water Resources

**Amy Talbot**, Regional Water Authority

**Dave Bolland**, Association of California Water Agencies (ACWA)

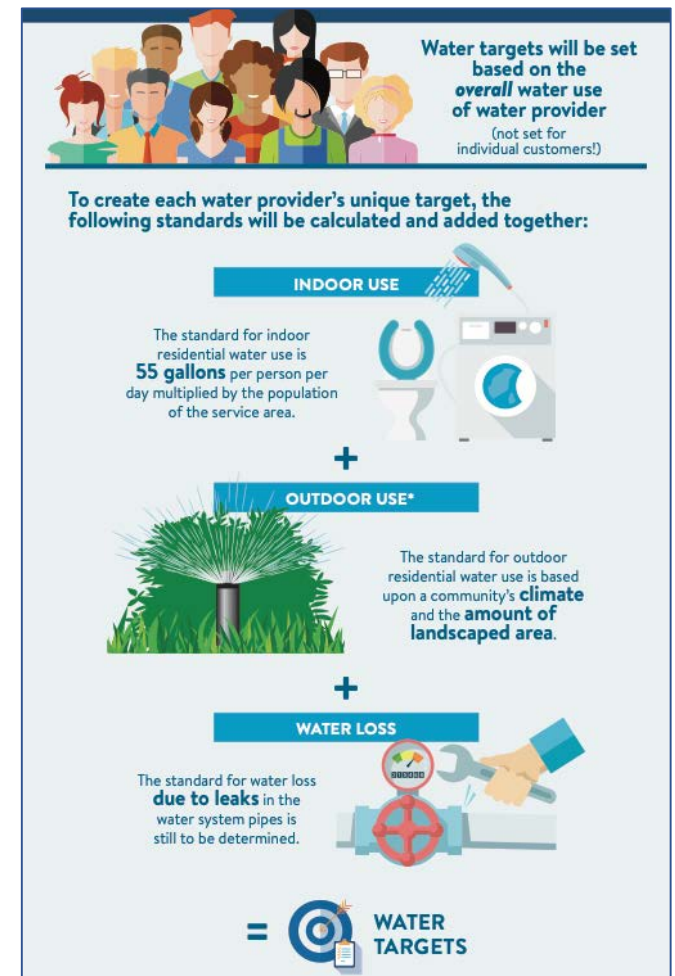


### EXPLORING THE CHALLENGES OF SB 606/AB 1668

- The need to preserve the “spirit” of the framework – customized, budget based vs. top-down percent reduction mandates
- Landscape area measurement standard setting– defining and measuring “irrigable” vs. “irrigated”
- Reasonable rules and process setting for variances
- Confirmation of indoor water standard as target
- CII performance measures - locally relevant while maintaining economic productivity
- Water User Support – education, outreach and more!
- State staffing requirements and timelines

*“The devil is definitely in the details.” – Amy Talbot*

Download the CalWEP  
Outreach Toolkit:



# PLENARY PANEL



**Question:** What can water agencies start doing NOW to start preparing for compliance of these new laws?



## **Peter Brostrom, DWR:**

Think how do you focus programs on customers who are wasteful. Identify large water use customers. Figure out your billing system so you can pull data out on monthly basis and identify customers that you need to work with.

Many agencies are not set up for capability to develop monthly budgets quickly.



## **Amy Talbot, RWA:**

Know your agency's service area, know your data, figure out how to do water budgets on your own, take stock of what's working and what's not in your programs, fine tune everything so that you're ready for the legislation.


## **Dave Bolland, ACWA:**

Identify specific low hanging fruit, unique things about your agency, identify ways to measure dedicated irrigation landscaping. Connect with CalWEP, ACWA, find your regional groups and talk to neighboring agencies to pull resources together to get a handle on the situation.

## **CalWEP Framework-Related Member Benefits:**

- Updated Conservation Tracking Tools
- Outreach and Media Toolkits
- Discounted Access to WaterView Portal
- Package programs like Smart Rebates
- Bulk purchasing
- Technical Assistance
- Research into effective programs
- G-480 Standard recognition
- AMI interoperability
- Assistance on rates
- Landscape outreach program: CBSM, CII Dedicated Irrigation, QWEL Trainings
- Supporting AWWA CA NV on water loss trainings

# THE PROGRAM



***Peer to Peer is different.** We emphasize peer sharing through interactive, focused sessions that give attendees the tools and trainings they need to maximize urban water efficiency. At Peer to Peer 2019, sessions occurred concurrently in two tracks: **Framing the Future of Water Conservation** and **Effective Program Management**.*

*Attendees were invited to attend whichever topics were of most interest to them*

# SESSION TOPICS

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## **Framing The Future Of Water Conservation**

Reaching Outdoor Targets: Choose Your Own Adventure  
Perspectives On CII  
Controversial Statements: Indoor Water Use  
Water Loss 101 & 201  
Public Outreach And Messaging

## **Effective Program Management**

Running Effective Programs Part 1: Presentations  
Running Effective Programs Part 2: Small Group Scenarios  
AMI: Everything You Need To Know To Run An Effective Program  
Water Rates in the Age of Water Efficiency  
Latest in Landscape Research with the Alliance for Water Efficiency  
The Water Energy Nexus

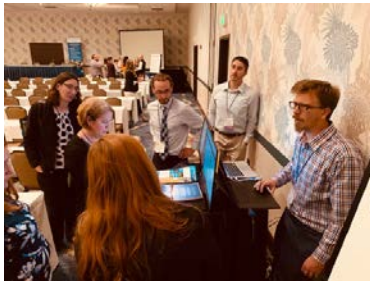
*All presentations are available for CalWEP members on MyCalWEP.*

# FRAMEWORK TRACK

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## REACHING OUTDOOR WATER TARGETS: CHOOSE YOUR OWN ADVENTURE

Even with the uncertainty that surrounds exactly how DWR will set outdoor water objectives, there is a host of activity as agencies, businesses and organizations develop tools and resources to help prepare water agencies to meet their targets. Participants were invited to rotate through 5 different options during this session to get their hands on some tools and gain a deeper understanding of what's out there.



(Presenters from Left to Right) **Clay Kraus**, Rachio, **Drew Atwater**, Moulton Niguel Water District, **Sean McNeil**, City of Santa Rosa, **Rick Whetsel**, Santa Ana Watershed Protection Agency, **Wayne Tate**, Eagle Aerial Solutions

### *What was discussed?*

**Rachio** talked distributed infrastructure and the future of connected devices, **Moulton Niguel** previewed their work on data-rich conservation tracking, **City of Santa Rosa** shared their experience in DWR's pilot and calculating targets, **SAWPA** reviewed their online landscape portal for member agencies and **Eagle Aerial** walked attendees through their WaterView Portal, a tool CalWEP members will be able to access at discounted prices.

### CALCULATING OUTDOOR WATER TARGETS

By Jan 2021, DWR will complete all landscape area measurements for 403 retail agencies across state

DWR will measure three categories:

- Irrigated
- Irrigable
- Not irrigable



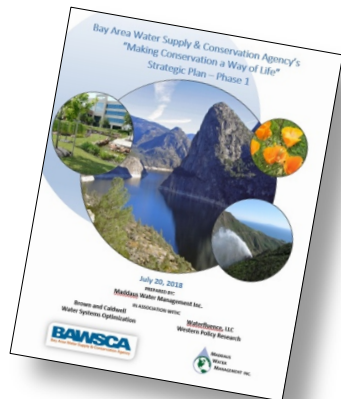
# FRAMEWORK TRACK

## PERSPECTIVES ON CII

Moderated by: **Charles Bohlig**, East Bay Municipal Utility District  
**Heather Cooley**, Pacific Institute  
**Michelle Maddaus**, Maddaus Water Management  
**Peter Brostrom**, Department of Water Resources  
**Mark Gentili**, Los Angeles Department of Water & Power

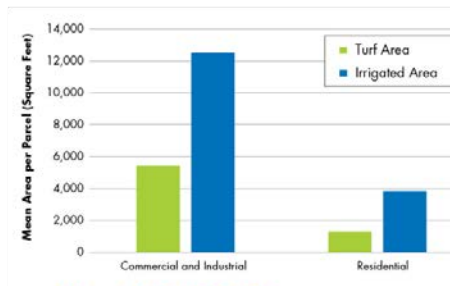


Commercial  
Industrial  
Institutional



**Maddaus Water Management** is developing a brand new tool, piloting with BAWSCA, to gather data directly from commercial water customers including information about current customer water fixtures. The tool will help agencies identify customers for rebates, engagement and water savings/audits.

### Why Sustainable Landscapes on Commercial and Industrial Properties?



[pacinst.org](http://pacinst.org) | @PacificInstit



Check out the Pacific Institute's new interactive map here:

[www.pacinst.org/santa-ana-benefits-map](http://www.pacinst.org/santa-ana-benefits-map)

# FRAMEWORK TRACK

## CONTROVERSIAL STATEMENTS: INDOOR WATER USE



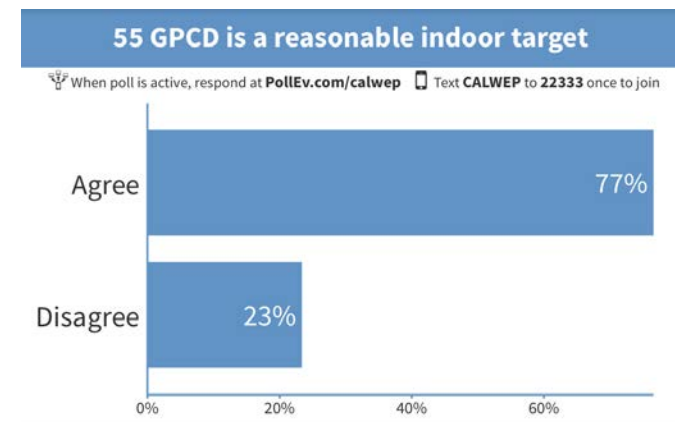
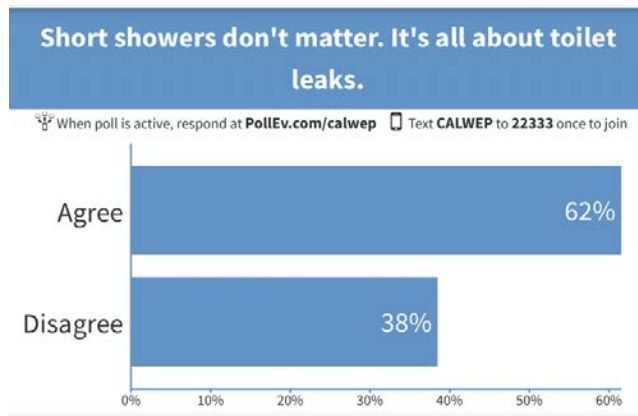
### Statement: Devices save more water than behavior change

**Greg Bundesen, Sacramento Suburban Water District** **AGREE** because people are habitual creatures, you can preach for a 5 min shower but people are going to go back to their habits. However if you change your shower head or other devices, you are automatically saving more water.

**Debby Figoni, Beverly Hills** **DISAGREE** thinks devices are important however it has to be about behavior change. It's telling people to look for leaks, listen for leaks, pay attention.

**Eric Adler, Flume** **DISAGREE** He says our device is a data collector, once people see the data they will know. Without having the data people may not change their behavior. 80% of customers said they saw a behavior change in their habits

**Audience Poll: 75% Disagree, 25% Agree**



**Debby Figoni (above)** had the crowd in stitches as she detailed why toilet leaks are her main focus in the City of Beverly Hills. With the help of her “best friend” AMI she will FaceTime with customers to find the leaky culprits. When it comes to indoor conservation efforts: she’s all about the toilet leaks

# FRAMEWORK TRACK

## WATER LOSS 101 & 201

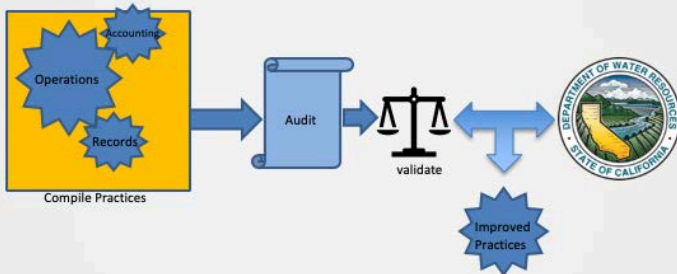
**Joe Berg**, Municipal Water District of Orange County  
**Todd Thompson**, Dept. of Water Resources  
**Kartiki Naik**, State Water Resources Control Board  
**Kate Gasner**, Water Systems Optimization  
**Sue Mosburg**, SweetwaterAuthority  
**Hal Hylton**, South Coast Water District



*See the appendix for responses to the unanswered questions during this session!*

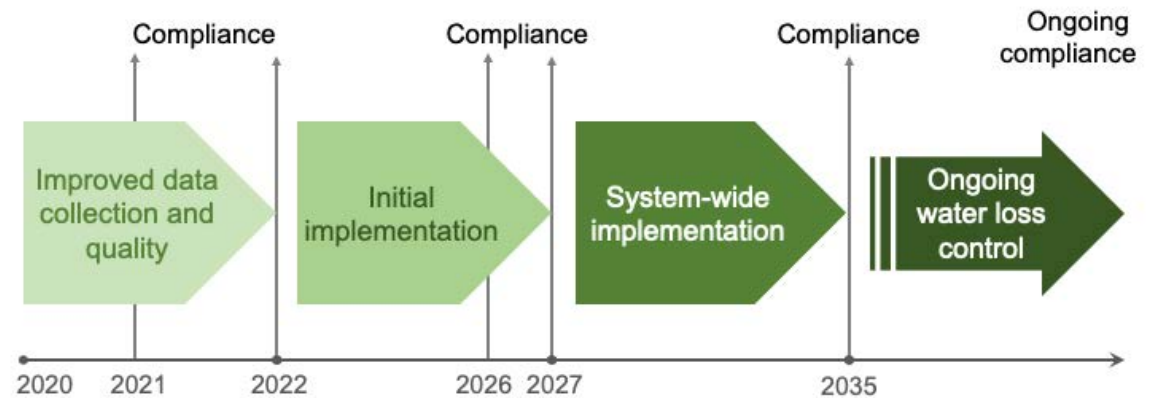
## WATER LOSS REGULATIONS

### WATER LOSS REPORTING



**SB 1420 (2014):** Beginning in 2015, utilities must submit AWWA water audits with their UWMPs.

**SB 606/AB 1668 (2018):** Making Conservation a California Way of Life – The water loss objective will be rolled up into overall water budget for each agency.



**SB 555 (2015):** Starting October 2017, utilities must submit annual, validated water audits. Utilities must achieve a volumetric standard assigned by the SWRCB. (Phased approach detailed above.)

# FRAMEWORK TRACK

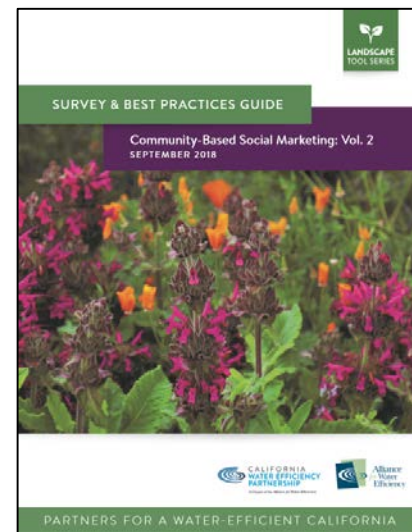
## PUBLIC OUTREACH AND MESSAGING

**Kristeen Farlow**, San Bernardino Valley Municipal Water District

**Angela Fentiman**, The FRW Company

**Lisa Cuellar**, California Water Efficiency Partnership

- Don't forget about your internal audience and prepare your team.
  - *How can you bring in all your coworkers to become ambassadors?*
- *Have you explained your campaign to your coworkers? Can they carry the message? (Especially if it is on the side of their trucks!)*
- Don't forget your board and management
  - *Take the time to provide your board and management with campaign details and fact sheets.*



**Increase participation in your landscape transformation programs by utilizing CalWEP's Community Based Social Marketing Survey!**




### Lessons from the 2018 Malibu Fires

- When disaster strikes, it's best to pause and reevaluate your outreach strategies.
- Don't overlook the human element of your work, especially the emotional toll disaster takes on your customers.
- Disaster can also be an opportunity to help a wider reach of customers.

# EFFECTIVE PROGRAMS TRACK

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## RUNNING EFFECTIVE PROGRAMS PART 1 & 2



### “QUOTABLE MOMENTS”

“Program implementation is a lot like party planning...you get your house in order before your guests arrive...make sure you know who your inviting to your party (or program)...avoid overcrowding, we want participation but we don't want angry party goers (customers)...have a plan for sunseting your party (program) but keep the party going! Repurpose or redecorate for your next party (programs.)”

– Amy McNulty, IRWD

Labor compliance is like the security guard of the party”

– Bottom Line Utility Services

“You're only as good as your contractor is, if you have a good contractor they are going to make you look great, if you don't it's not going to go well.”

–Lisa Morgan-Perales, IEUA

# EFFECTIVE PROGRAMS TRACK

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## RUNNING EFFECTIVE PROGRAMS PART 1 & 2

### ONLINE RESOURCES

- Public Works definition: Labor Code § 1720  
[http://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=LAB&sectionNum=1720](http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=LAB&sectionNum=1720)
- DIR Public Works page: <https://www.dir.ca.gov/Public-Works/PublicWorks.html>
- DIR Public Works FAQ: <https://www.dir.ca.gov/Public-Works/PublicWorksSB854FAQ.html>
- Prevailing Wage definition: Labor Code § 1771  
[http://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?sectionNum=1771.&lawCode=LAB](http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=1771.&lawCode=LAB)
- Federal Davis-Bacon & Related Acts: U.S. Dept. of Labor  
<https://www.dol.gov/whd/govcontracts/dbra.htm>
- Skilled and Trained Workforce: Public Contract Code § 2600  
[https://leginfo.legislature.ca.gov/faces/codes\\_displayText.xhtml?lawCode=PCC&division=2.&title=&part=1.&chapter=2.9.&article=](https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PCC&division=2.&title=&part=1.&chapter=2.9.&article=)

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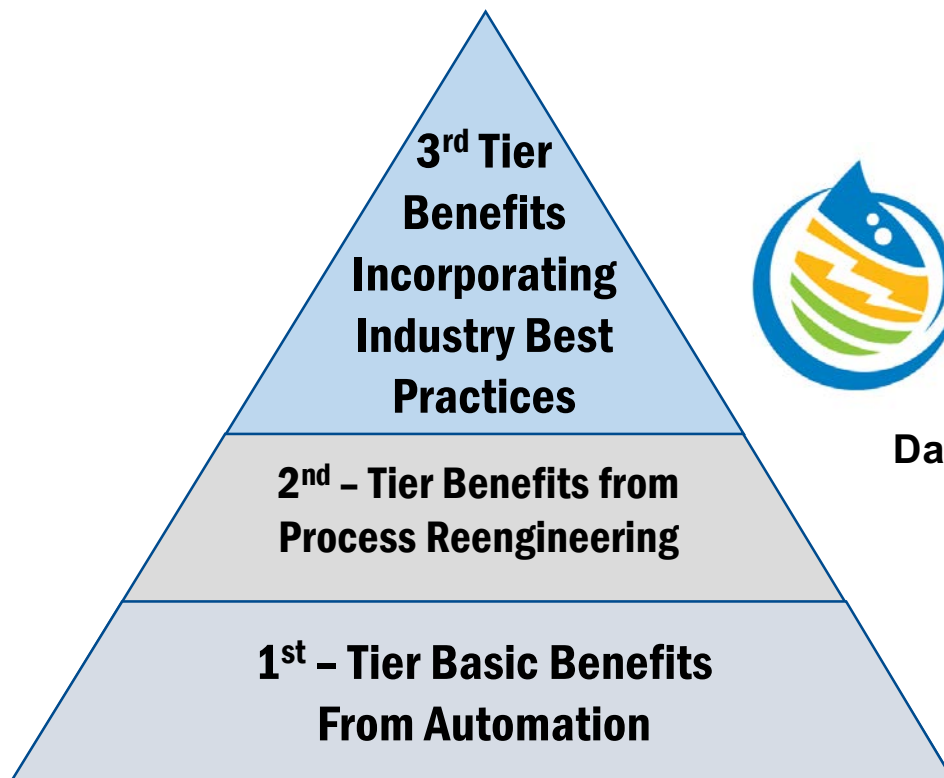


# EFFECTIVE PROGRAMS TRACK

## AMI: EVERYTHING YOU NEED TO KNOW TO RUN AN EFFECTIVE PROGRAM

**Mary Ann Dickinson**, Alliance for Water Efficiency  
**Don Schlenger**, Don Schlenger & Associates  
**Julie Ortiz**, San Francisco Public Utilities Commission

The Alliance for Water Efficiency and CalWEP have a template RFP for bidding AMI available at [A4WE.org/AMlableCommittee.aspx](http://A4WE.org/AMlableCommittee.aspx)



**SFPUC received 1.6 BILLION data reads/year through AMI**

### Data Management Considerations:



### HIERARCHY OF AMI BENEFITS

# EFFECTIVE PROGRAMS TRACK

## WATER RATES IN THE AGE OF WATER EFFICIENCY

Tom Ash, Tom Ash H2O

Martha Davis, Water Efficiency Trust

### Types of Rates:

Uniform Rates- one size fits all

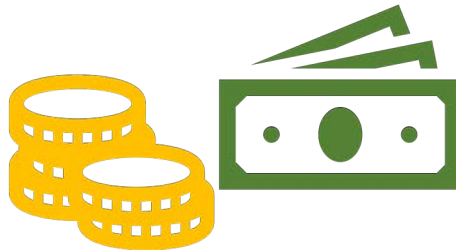
Fixed Tiered Rates- 3 size fits all

Budget Based Rates- dealing with their situation

Individualized

Flexible

Revenue stability



### Rates must solve for...



- ✓ Revenue stability
- ✓ Water use efficiency
- ✓ Customer satisfaction
- ✓ Board approval
- ✓ Legality

***“We don't sell water, we sell reliability”***

*–Tom Ash*

**Learn more.**



[www.budgetbasedrates.com](http://www.budgetbasedrates.com)

### What are the main concerns attendees have about budget based rates?

“How do you get political buy in to actually make a change?”

“Water efficiency isn't even involved in budget so we don't know what's fixed and what's variable”

“Inflexible billing systems.”

“How do you actually develop the budget?”

“What is the downside?”

“How can you justify differing tiers when the costs are fixed and must comply with Prop 218?”

# EFFECTIVE PROGRAMS TRACK

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## THE LATEST IN LANDSCAPE RESEARCH WITH THE ALLIANCE FOR WATER EFFICIENCY

**Mary Ann Dickinson**, Alliance for Water Efficiency  
**Lacey Smith**, Alliance for Water Efficiency  
**Maureen Erbeznik**, Maureen Erbeznik and Associates



### **Peak Day Water Demand**

- Tested remote control of irrigation systems to manage peak demand
- Found remote shifting was successfully occurring in 14 of 15 sites
- We would like to develop more research in this area

### **Landscape Transformation Study**

- Evaluated saving of 9 landscape transformations in diverse geography
- Landscape programs also reduced peak demand and water saving were observed to persist and increase over time

### **Drought Restrictions Study**

- Watch for this study

**LEARN MORE: [A4WE.ORG](https://www.a4we.org)**

# EFFECTIVE PROGRAMS TRACK

## THE WATER ENERGY NEXUS

**Mary Ann Dickinson**, Alliance for Water Efficiency

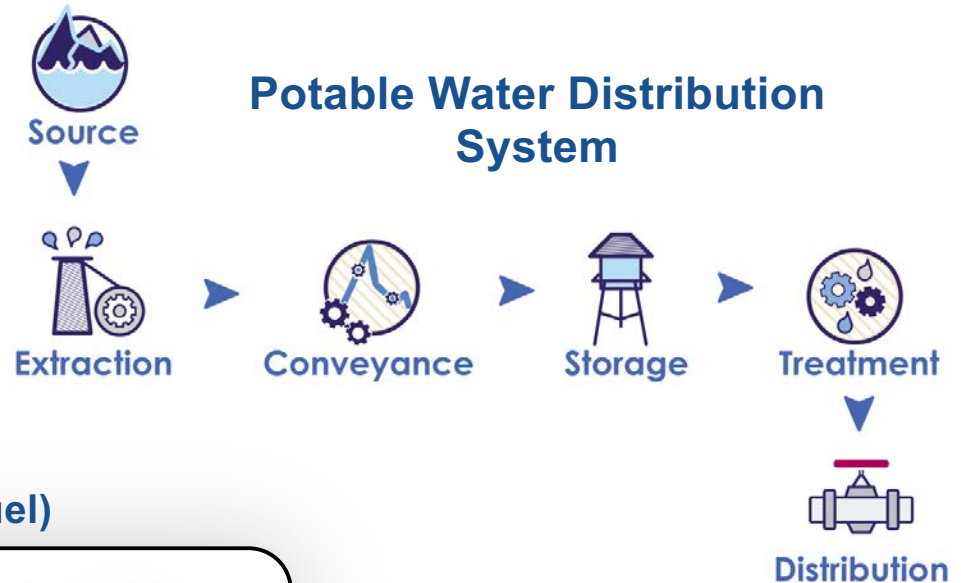
**Martha Davis**, Water Efficiency Trust

**Lindsey Stuvick**, Moulton Niguel Water District

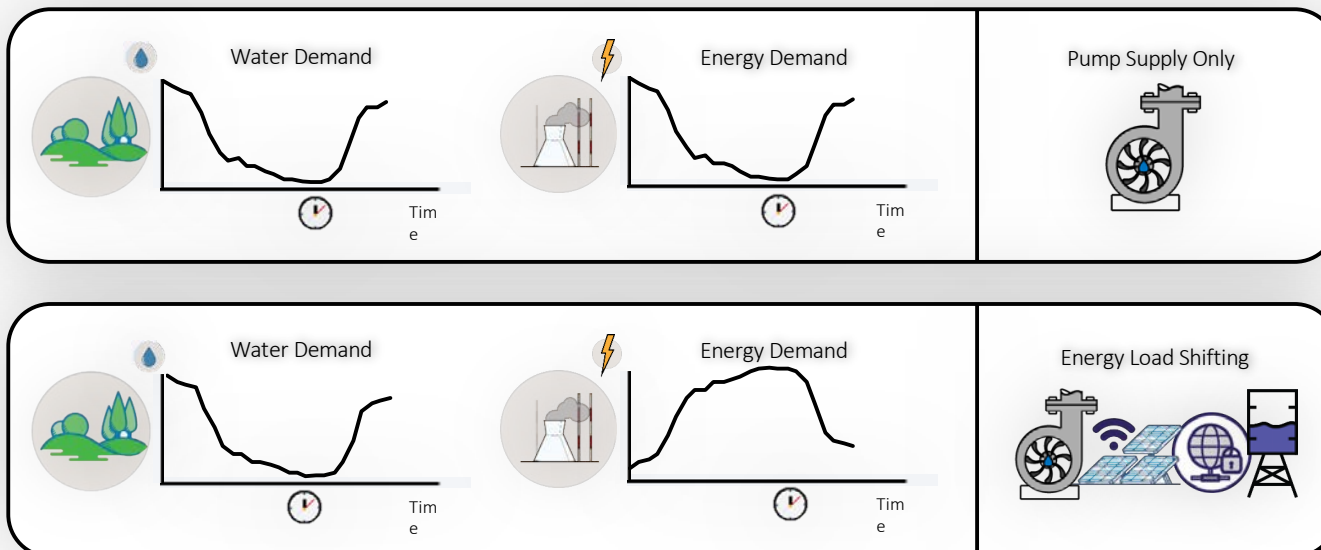
**Kendra Olmos**, U.C. Davis Center for Water Energy Efficiency



**LEARN MORE AT  
CWEE.UCDAVIS.ORG**



### Opportunity For Energy Load Shifting (Moulton Niguel)





## Special Recognitions

Irvine Ranch Water District  
G480 Platinum Level

City of Sacramento  
G480 Gold Level

Penny Falcon  
Los Angeles Dept. Water and Power  
CalWEP Board Member - Retired 2019

Diana Brooks  
Department of Water Resources  
CalWEP Board Member – Retired 2019



# APPENDIX

## WATER LOSS: UNANSWERED QUESTIONS

*There were many questions turned in during the Water Loss session and our panelists ran out of time to answer them all. Below, you'll find the written answers to the questions we did not get to.*

**Have you quantified the inherent error (compounded error) in the models used to set SB 555 Performance Standards, and how will that inform the target setting?**

(Partly addressed during the panel) We are currently developing the model using costs for water loss recovery reported in the State Water Board's Electronic Annual Reports. We will calibrate the model using reported data and data from literature. Additionally, assumptions behind the model will be made public. If certain assumptions do not apply to water systems, water retailers can inform us using adjustments during specific periods in the regulatory timeline and request to modify their standard accordingly. These adjustments will be handled on a case-by-case basis. If the State Water Board determines that the requested adjustment is accurate, the standard for that water retailer will be modified accordingly. (Kartiki)

**What is the general range of cost for agencies to conduct a Component Analysis and how long does it typically take, start to finish? And, what is the biggest driver of costs, if there is one?**

Internal agency costs and external consulting costs will vary, of course. The dreaded "it depends!" answer! Here are some parameters to consider based on WSO's cost of service: it depends on the size of your agency and how much repair data there is to parse through and model with. It also depends on the quality of that repair data. Given these factors, WSO offers a "gap analysis" service as a starting point, to understand what an agency has re: repair data and infrastructure data necessary for component analysis; this ranges from \$2.5K to \$5K. We also offer a complete component analysis, which ranges from \$10 to \$15K. Beyond the assessment of volumes, we also offer water loss reduction planning and strategy development. The internal costs will vary much more significantly depending on how accessible your repair data is and how much troubleshooting/estimation ensues. (Kate)

**Can you explain the role of wholesale suppliers in assisting retail suppliers in ensuring good data quality on the water loss audit?**

Source meter accuracy is important. Wholesale suppliers are often responsible for testing and calibration of the meter through which water is provided to the retail agency. Some wholesale suppliers are also assisting their retail suppliers with water audits by providing validation services, training, customer meter testing support, and leak detection equipment. (Sue)

**Do you think some of the inconsistencies in data (water balance) could be attributed to meter issues and changes in supply sources?**

Absolutely. Rare is the system that measures water entering the distribution system (from all sources) through a single meter. So, with change of supply there are associated changes in the relative volumes of water going through each supply meter. Given the

# WATER LOSS: UNANSWERED QUESTIONS

variability of meter accuracy and flow volumes, the volume of water attributed to each meter and subsequent meter adjustment factor applied independently and collectively can shift the total water supplied volume dramatically – which affects multiple volumes and values within the water budget.(Sue)

## **What documentation is expected of utilities asking for an adjustment?**

We are developing criteria and documentation which might be expected of utilities for an adjustment, which will be released publicly prior to the formal rulemaking process in July. (Kartiki)

## **How will SWRCB consider unforeseen circumstances such as earthquake or operational changes/issues that affect water loss but may not have been predicted during the adjustment period?**

We are proposing to incorporate a provision for variances, which would be distinct from that for adjustments. These variances would be provided for water retailers undergoing severe economic hardship or a significant adverse event, and would be determined on a case-by-case basis to determine the course of action and alternative compliance. (Kartiki)

## **Are there data that pressure monitoring reduced leaks? If so, please provide. Note: we vary from 25 – 120 psi through our services area. This is relatively low compared to more hilly topography.**

Yes. A simple internet search will bring up several examples and studies. (Sue)

## **How do we force our field crews to better fill out their field data? (was looking for ideas from the room)**

Make data collection easy – use e-tablets in the field; Include in performance standards; Show employees how the data they provide helps them on future tasks; Pre-populate known information in work orders etc (it's often easier to verify data, than to create it) (Sue)

My plan is to bring to the attention of the user with an explanation of how the data is utilized and the importance of thoroughness and accuracy. At some point you might have to assign this task to an individual that has a better understanding of why the data is important.(Hal)

## **How much did it cost Sweetwater Authority to break pressure zones into isolated zones in hilly areas?**

Sweetwater Authority's pressure zone project was completed over 20 years ago. Records have been archived, and project details are no longer readily available. (Sue)

## **How will the state utilize the Component Analysis to inform Performance Standards?**

The performance standards will be adopted in 2020, while the Component Analyses will be submitted by 2026. We propose to have a reassessment period between November 2027 and June 2028, to consider new data from additional water loss audits, electronic annual reports and component analyses, which may modify the 2035 volumetric standard for retailers as deemed accurate. Component Analyses provide a more in-depth information on the type of leakage than the audits, which can determine the likely approaches to be used by suppliers. This will be one more insight into the possible costs and associated efficiencies in reducing water loss. Additionally, the motivation behind the requirement for submitting Component Analyses is to have systems take a deeper dive into understanding their leakage. (Kartiki)

# WATER LOSS: UNANSWERED QUESTIONS

**If recycled water is awarded for the agency, will they be (subject?) to a similar standard for reporting as potable? (this question really doesn't make sense!)**

Currently as per California Water Code 10608.12, urban retail water suppliers are defined as follows:

“Urban retail water supplier” means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

Recycled water, as of now, would not be subject to a standard for water loss. (Kartiki)

**What was the approximate cost of the leak detection equipment that was purchased?**

MWDOC purchased the following equipment at these prices:

- Sub Surface LD-18 Digital Leak Detector (ground mic) = \$5,355
- Zcorr Digital Correlating Noise Logger = \$15,500
- Global Water PL-200 Hydrant Pressure Logger = \$600 (Joe)

**Comment: Some folks are worried about street trees that are supported (irrigated) by leaking mains, etc. Suggest suppliers/cities plan for this.**

Leaks watering landscapes and/or keeping wetland areas alive is non-revenue water. The preference would be to install a meter to supply water for these purposes, which then allows the water system to receive revenue from this water use. (Sue)

**Are there any updates to the water loss audit methodology or spreadsheet for the upcoming audit?**

Not this year – Because Version 5 of the AWWA Free Water Audit Software is specifically cited in regulation, a formal rulemaking process will need to occur when the next software version is eventually launched. AWWA Manuals are updated approximately every 5 years. This includes the M36 Water Audits and Loss Control Programs (the Fourth Edition was published in 2016) - AWWA is in the early stages of development for Version 6 of the AWWA Free Water Audit Software. A release date has not yet been set. (Sue)

Will there be a technical assistance program for the Component Analysis? I think this would be very helpful and essential to quality data.

We couldn't agree more! CA-NV AWWA has proposed a technical assistance program (similar to the very successful Water Loss TAP) to the State Water Resources Control Board staff. Discussions are underway about how to fund this program. Stay tuned for how you can lend your voice to support this effort. (Sue)

**Will the volumetric component for water loss for the conservation target be based on water loss in gallons per connection per day?**

As of now, the volumetric component for water loss for the conservation objective will most probably be based on gallons per connection per day, unless the upcoming workshop and formal rulemaking process bring to light any issues about this metric. (Joe)

# WATER LOSS: UNANSWERED QUESTIONS

**Agencies are reluctant to adjust system pressure, do you have any recommendations on how staff responsible for managing water loss can approach exploring this opportunity?**

Adjusting system pressure is easier to accomplish and gain support for when the true system dynamics and needs are better understood and real-time data is more available upon which to make adjustments. Encourage your water system to invest in a good hydraulic model. Calibrate the model in the field each time work is done on the system and integrate the use of the model into daily operations. This provides a better understanding of current pressures and true system needs. Consider investing in pressure monitoring technology and using new technology to gather real-time data and, through smart devices, adjust system pressures based on time of day and use. Pilot projects are a good way to gain support for larger pressure management programs. (Sue)

**Can you (Kate) recommend a basic roadmap/step by step process an agency should follow to evaluate water loss?**

Very generally speaking, here's the roadmap. Remember, for each agency water loss control programming is going to balance refining data sources and pursuing cost-effective non-revenue water reductions:

- Complete the AWWA Water Audit (now required by SB555 for Urban Retail Water Suppliers!)
- Refine water audit inputs with production meter accuracy testing and small meter accuracy testing whenever possible
- Complete a Component Analysis of Real Losses to better dis-aggregate your leakage volumes
- Evaluate costs of non-revenue water comparing to costs of intervention (Kate)

**If leaks don't surface, they don't exist! What is your agency discovering – more or less leakage than anticipated? Is the mindset about leakage changing within your agency?**

At Sweetwater, we have for years maintained that we have very minimal leakage compared to other urban retail water systems. This mindset has not changing, but is instead being reinforced as more data becomes available. We are recognizing meter inaccuracy as the water loss balance Achilles heel and have seen significant volumetric swings in between apparent and real losses as a result. (Sue)



**A HUGE** thank you to the panelist for the taking the time to answer all the questions we were unable to get to in the session. Your dedication and attention to detail is appreciated!