Pilot CA Small Water Systems Rates Dashboard

October 30, 2020
9:00 am

Remote participation only

CALIFORNIA
Water Boards

CALIFORNIA WATER BOARDS

SAFER PROGRAM

Welcome and Meeting Logistics

Presentation Outline

- State Water Board Introduction
- Background and Demonstration of Dashboard
- Next Steps

Ways to Participate-

1. Watch ONLY: Visit video.calepa.ca.gov

2. Email: Submit a comment or ask a question that will be read aloud, send an email to:
safer@waterboards.ca.gov

3. Q&A: Submit a question using the Q&A feature at the bottom of your Zoom Screen. You can UPVOTE any question you would like answered.

4. Raise Hand: Attendees will be given the opportunity to provide verbal comment or ask questions, if you're interested in this option, please raise your virtual hand when the time is right.

- Please wait for your name to be called.
- Public comments are 3 minutes each.

Welcome and Introduction

Kristyn Abhold
Needs Analysis Unit
Division of Drinking

Audience Poll Question 1

Do you think water system financial information should be publically available in a central location state-wide?

- Yes
- No

Audience Poll Question 2

Have you read the background paper: ***"Introducing the California Small Water Systems Rates Dashboard"***?

- Yes, read the whole thing
- Yes, I skimmed it
- No, but I plan to
- No, I don't intend to read it

Access Background Paper here:
https://www.waterboards.ca.gov/safer/docs/introducing_california_small_water_systems_rates_dashboard.pdf

Capacity Development

- **Capacity Development** is a process for water systems to acquire and maintain adequate technical, managerial and financial (TMF) capacity.

- **TMF capacity** enables water systems to have the capability to consistently provide safe drinking water to the public.

- **Financial Capacity** – the ability to acquire and manage sufficient financial resources to plan for, achieve, and maintain compliance with drinking water standards.

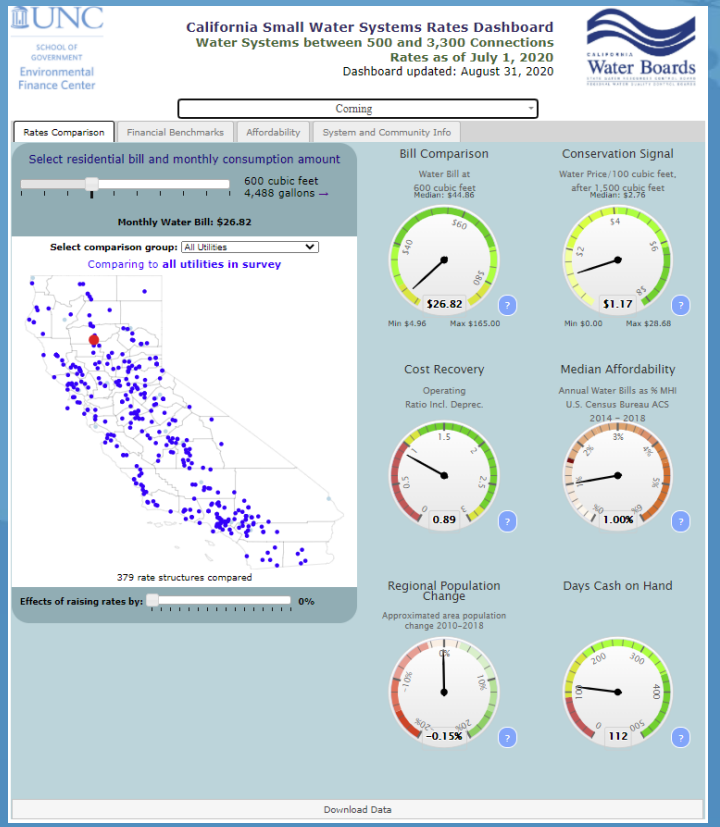
Pilot CA Small Water Systems Rates Dashboard

- The State Water Board's goal for piloting the small water systems rates dashboard is to:
  - **Provide a tool to small water systems for financial planning and rate setting.**
  - **Assist State Water Board staff in assessing "Financial Capacity" of small water systems.**
  - **Assess long-term value of financial data collection and analysis.**

Introducing the California Small Water Systems Rates Dashboard

October 30, 2020

Webinar



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Environmental Finance Center

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Partners:

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

UCLA Luskin Center for Innovation

Utility staff

Governing boards

Customers

Data and information are critical for decision-making

Policy-makers

Researchers

Regulators

Funders

Sharing Information with Elected Officials when Staff Requested a Water Rate Increase

According to a national survey of 1,408 water/wastewater utilities in the U.S. in 2014:

- 94% included information about the utility's financial condition …
- 74% included information about what nearby utilities are charging …
- 58% included information about what similar sized utilities are charging …

… and the information was judged by staff as "very or somewhat useful".

Staff of 62% of the utilities compared rates to nearby utilities themselves as part of their internal rates review process prior to presenting a rate case to their governing body.

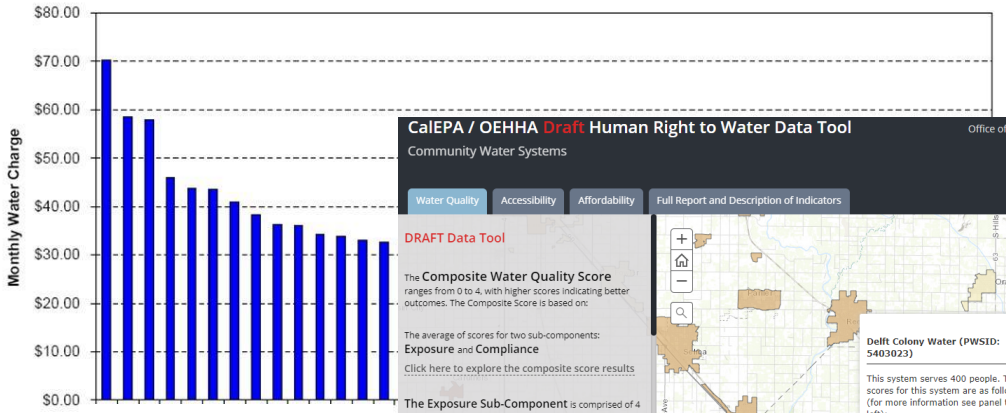
Source: Water Research Foundation project #4455 "Rate Approval Process Communication Strategy and Toolkit" (2014).

Elected Officials Cared About the Information

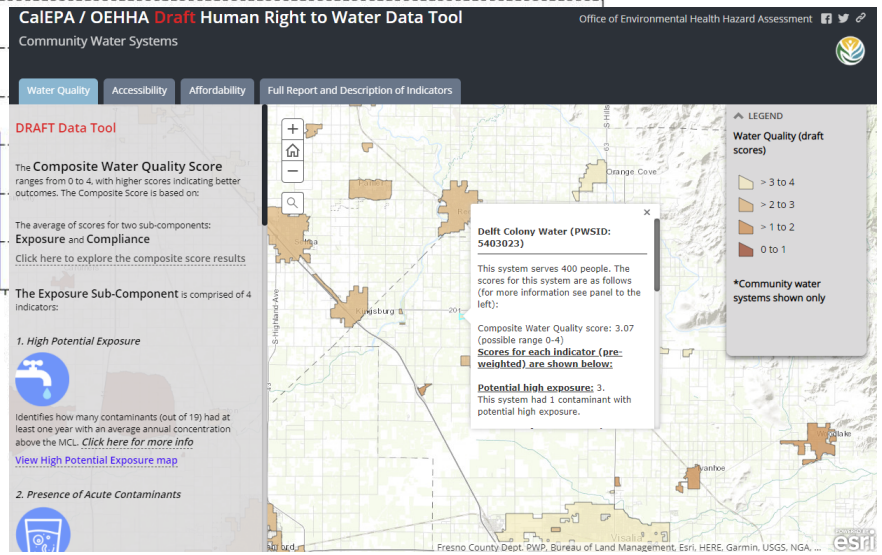
315 elected officials reported that the following were “very important” or “important” factors in their decisions about whether to raise water rates:

- Long-term impact on the utility’s financial condition: 97%
- What nearby utilities are charging: 51%
- What similar sized utilities are charging: 56%
- Long-term affordability for residential customers: 92%

Source: Water Research Foundation project #4455 “Rate Approval Process Communication Strategy and Toolkit” (2014).



List of different water systems in a region or state



2019 CONSUMER CONFIDENCE REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulations
The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.
Some of the data, though representative, are more than one year old.

PRIMARY STANDARDS MONITORED AT THE SOURCE-MANDATED FOR PUBLIC HEALTH

INORGANICS Sampled from 2017 to 2019 (b)	GROUNDWATER AVERAGE	GROUNDWATER RANGE	MWD'S SURFACE WATER AVERAGE	MWD'S SURFACE WATER RANGE	PRIMARY MCL	MCLG or PHG	MAJOR SOURCES IN DRINKING WATER
Aluminum (µg/l)	ND	ND	0.12	ND - 0.11	1000	600 (a)	Erosion of natural deposits; residue from surface water treatment processes
Arsenic (µg/l)	2.9	2.9	ND	ND	10	0.004 (a)	Erosion of natural deposits; glass/electronics production wastes; runoff
Barium (µg/l)	ND	ND	ND	ND	1000	2000 (a)	Oil drilling waste and metal refinery discharge; erosion of natural deposits
Fluoride (mg/l) (i)	0.3	0.3	0.70	0.1 - 0.9	2.0	1 (a)	Erosion of natural deposits, water additive that promotes strong teeth
Nitrate (mg/l as N)	1.9	1.9	0.50	0.5	10	10 (a)	Runoff and leaching from fertilizer use/septic tanks/sewage, natural erosion
RADIOLOGICAL - (pCi/l) (Sampled from 2017) (b)							
Gross Alpha	ND	ND	ND	ND	15	0	Erosion of natural deposits
Gross Beta	NA	NA	ND	ND	50	0	Decay of natural and man-made deposits
Radium 226	ND	ND	ND	ND	5 (j)	0.05	Erosion of natural deposits
Radium 228	0.1	0.1	ND	ND		0.019	Erosion of natural deposits
Uranium	ND	ND	ND	ND	20	0.43 (a)	Erosion of natural deposits

PRIMARY STANDARDS MONITORED IN THE DISTRIBUTION SYSTEM - MANDATED FOR PUBLIC HEALTH

MICROBIALS	DISTRIBUTION SYSTEM AVERAGE # POSITIVE	DISTRIBUTION SYSTEM RANGE # POSITIVE	PRIMARY MCL	MCLG or PHG	
Total Coliform Bacteria	0	0	>1 Positive	0	Naturally present in the environment

	DISTRIBUTION SYSTEM AVERAGE	DISTRIBUTION SYSTEM RANGE			
Turbidity (NTU)	ND	ND - 0.2	TT	-	Soil runoff

DISINFECTION BY-PRODUCTS (d) AND DISINFECTION RESIDUALS	DISTRIBUTION SYSTEM HIGHEST RUNNING ANNUAL AVERAGE	DISTRIBUTION SYSTEM RANGE	PRIMARY MCL	MCLG or PHG	
Trihalomethanes-TTHMS (µg/l)	13.8	5.7 - 24.0	80	-	By-product of drinking water chlorination
Haloacetic Acids (µg/l)	4.1	ND - 9.9	60	-	By-product of drinking water disinfection
Total Chlorine Residual (mg/l)	1.5	0.5 - 2.6	4.0 (e)	4.0 (f)	Drinking water disinfectant added for treatment

AT THE TAP PHYSICAL CONSTITUENTS 20 sites sampled in 2019	BELL GARDENS SYSTEM TAP 90%ile	# OF SITES ABOVE THE AL	ACTION LEVEL AL	MCLG or PHG	
Copper (µg/l)	110 (g)	0	1300 AL	300 (a)	Internal corrosion of household plumbing, erosion of natural deposits
Lead (µg/l)	ND (g)	0	15 AL	0.2 (a)	Internal corrosion of household plumbing, industrial manufacturer discharges

SECONDARY STANDARDS MONITORED AT THE SOURCE-FOR AESTHETIC PURPOSES

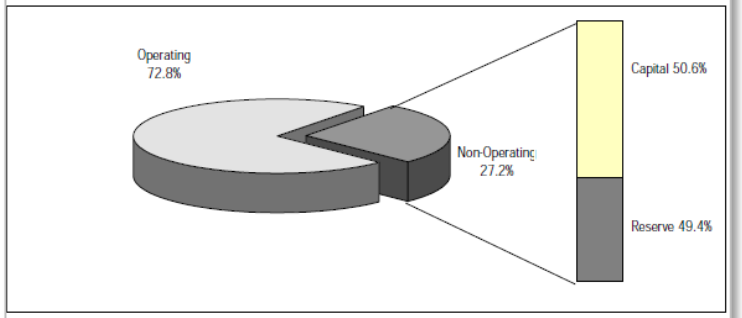
Sampled from 2017 to 2019 (b)	GROUNDWATER AVERAGE	GROUNDWATER RANGE	MWD'S SURFACE WATER AVERAGE	MWD'S SURFACE WATER RANGE	SECONDARY MCL	MCLG or PHG	
Aggressiveness Index (corrosivity)	11.9	11.9	12.1	12.1 - 12.5	Non-corrosive	-	Natural/industrially-influenced balance of hydrogen/carbon/oxygen in water
Aluminum (µg/l) (h)	ND	ND	123	ND - 110	200	600 (a)	Erosion of natural deposits, surface water treatment process residue
Chloride (mg/l)	50	50	53	55 - 58	500	-	Runoff/leaching from natural deposits, seawater influence
Color (color units)	ND	ND	ND	ND - 1.0	15	-	Naturally-occurring organic materials
Specific Conductance (uS/cm)	570	570	491.5	435 - 521	1,600	-	Substances that form ions when in water, seawater influence
Odor (threshold odor number)	1	1	0.5	ND - 1.0	3	-	Naturally-occurring organic materials.
Sulfate (mg/l)	78	78	82	65 - 93	500	-	Runoff/leaching from natural deposits, industrial wastes
Total Dissolved Solids (mg/l)	340	340	357	246 - 611	1,000	-	Runoff/leaching from natural deposits

ENTERPRISE FUNDS

COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
Year Ended June 30, 2019

	Sewer Enterprise Fund (Fund 610, etc)	Solid Enter Fu (Fund				
OPERATING REVENUES:						
Charges for Service	$ 1,919,877	$				
Connection fees	-					
Lease and Rents	9,057					
Other Revenue	82,940					
Total Operating Revenues	2,011,874					
OPERATING EXPENSES:						
Salaries and Benefits	408,492					
Utilities	90,193	-	4,070	7,578	220,482	322,323
Depreciation	487,410	-	33,132	-	150,500	671,042
Amortization	7,755	-	-	-	4,762	12,517
Other Expenses	946,783	500,707	14,064	9,715	286,371	1,757,640
Total Operating Expenses	1,940,633	500,707	51,884	17,293	1,390,845	3,901,362
Operating Income (Loss)	71,241	(2,072)	(17,619)	(1,373)	(29,476)	20,701
NON-OPERATING REVENUE (EXPENSE)						
Investment Earnings	12,954	439	545	145	10,099	24,182
Interest Expense	(237,653)	-	-	-	(126,680)	(364,333)
Net Non-Operating Revenues (Expenses)	(224,699)	439	545	145	(116,581)	(340,151)
Income Before Transfers	(153,458)	(1,633)	(17,074)	(1,228)	(146,057)	(319,450)
Operating Transfers In	285,000	-	-	-	78,500	363,500
Operating Transfers Out	(285,000)	-	-	-	(78,500)	(363,500)
Changes in net position	(153,458)	(1,633)	(17,074)	(1,228)	(146,057)	(319,450)
NET POSITION, BEGINNING OF YEAR						
As Previously Stated	1,136,541	(10,837)	3,178,462	20,457	1,286,890	5,611,513
Prior period adjustment	-	-	-	-	7,381	7,381
As Restated	1,136,541	(10,837)	3,178,462	20,457	1,294,271	5,618,894
Residual Equity Transfers In	79,280	-	-	-	25,000	104,280
Residual Equity Transfers Out	(79,280)	-	-	-	(25,000)	(104,280)
NET POSITION, END OF YEAR	$ 983,083	$ (12,470)	$ 3,161,388	$ 19,229	$ 1,148,214	$ 5,299,444

SURFACE WATER UTILITY
BUDGET SUMMARY: BY FUND TYPE/FUND

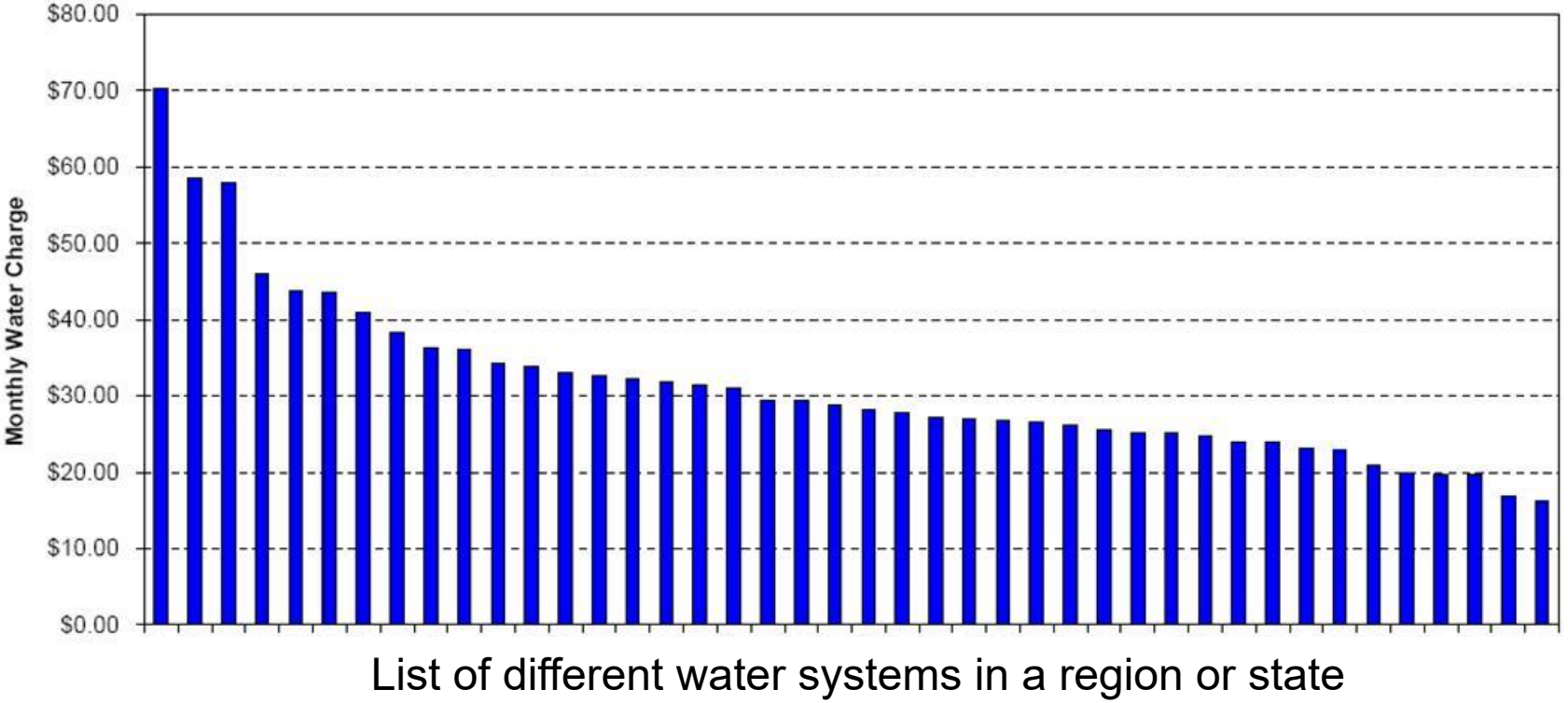


The Surface Water Utility officially began operation on January 1, 1998. The majority of the utility's resources go toward maintenance and public education activities. The capital projects portion of the budget (the non-operating budget) focuses on culvert rehabilitation and improvements on private property that aid the overall drainage system.

Analysis of Change

Fund	Last year Budget*	This year Budget	% Change	Next year Budget	% Change
Operating Fund					
421 Surface Water Management	3,084,889	3,329,918	7.94%	**	**
Total Operating Fund	**3,084,889**	**3,329,918**	**7.94%**	**	**N/A**
Non-Operating Fund					
423 Surface Water Capital Projects	1,942,281	1,247,195	-35.79%	1,539,195	23.41%
Total Non-Operating Fund	**1,942,281**	**1,247,195**	**-35.79%**	**1,539,195**	**23.41%**
Total Surface Water Utility Funds	**5,027,170**	**4,577,113**	**-8.95%**	**	**N/A**

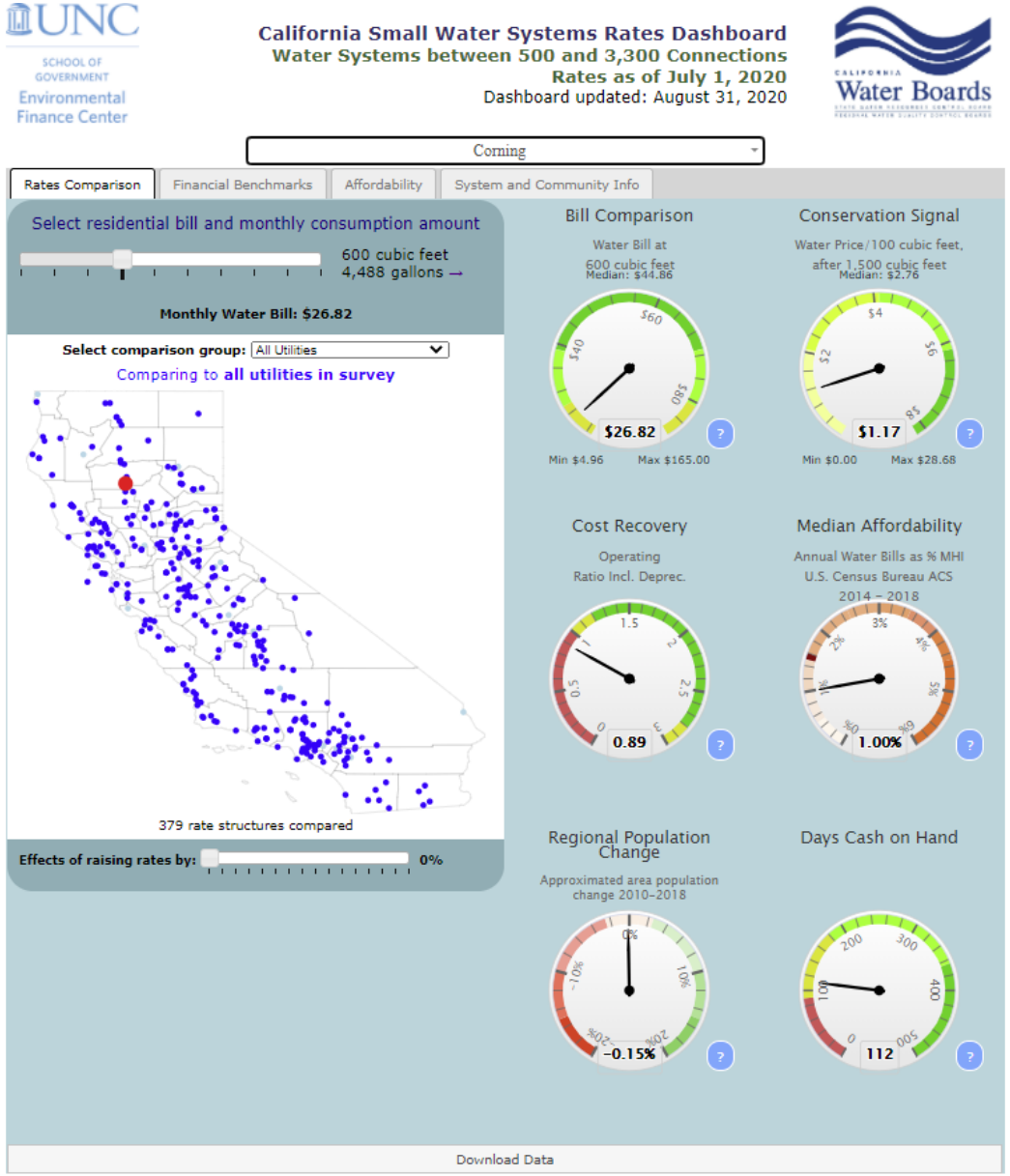
Comparing Rates – Common Way



Potential problems?

- Comparing to utilities that are not similar
- Comparing to only a few utilities
- Comparing only one bill amount
- Comparing nothing besides rates
  - pressure to keep rates low
  - regardless of financial condition of utility
  - ignores customers' ability to pay
  - ignores price signals, policies, performance

http://efc.sog.unc.edu/CAdashboard

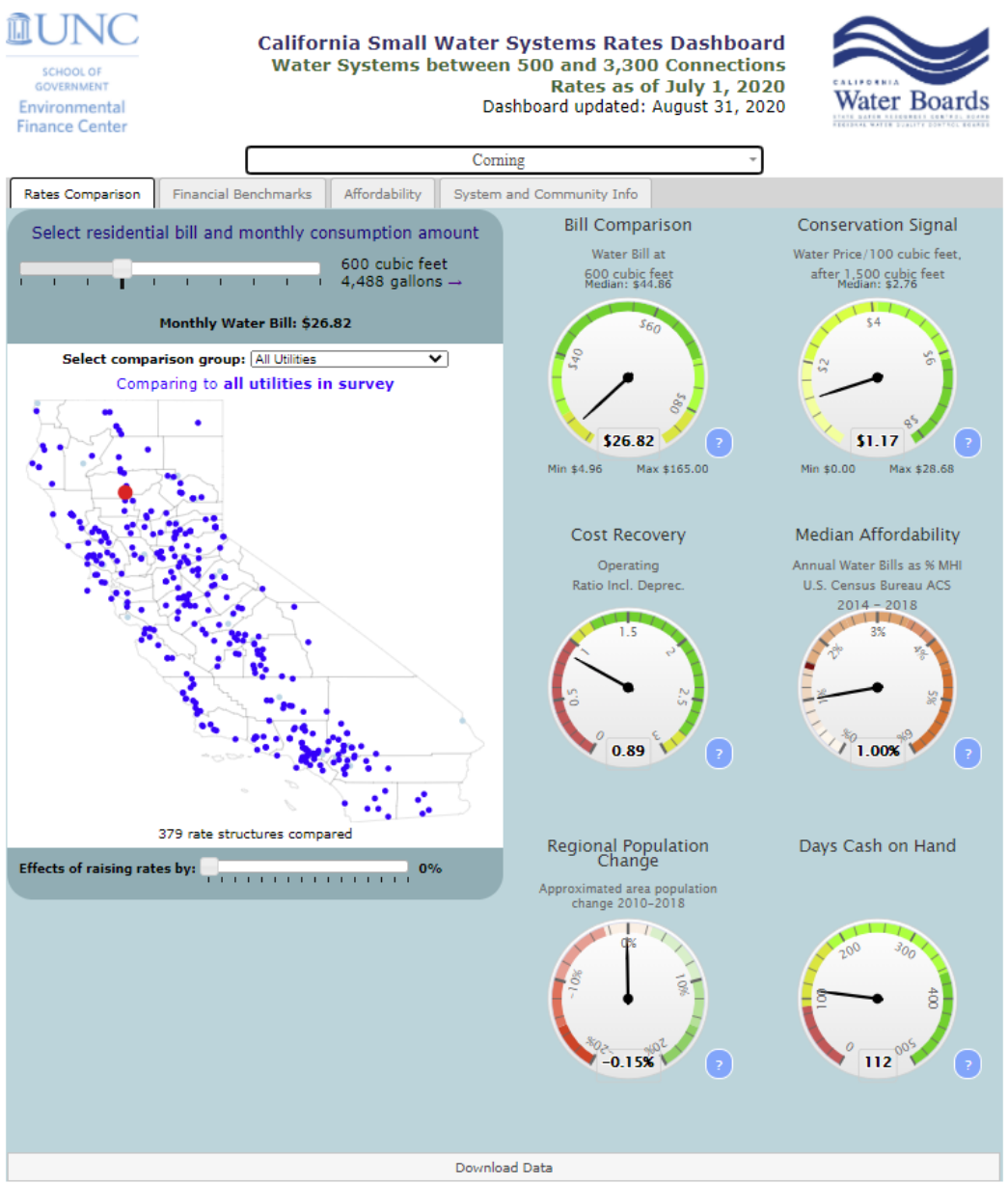


The California Small Water Systems Rates Dashboard

Interactive tool to allow utilities to better benchmark rates, financial, and system performance data, and other key metrics to guide local financial decisions.

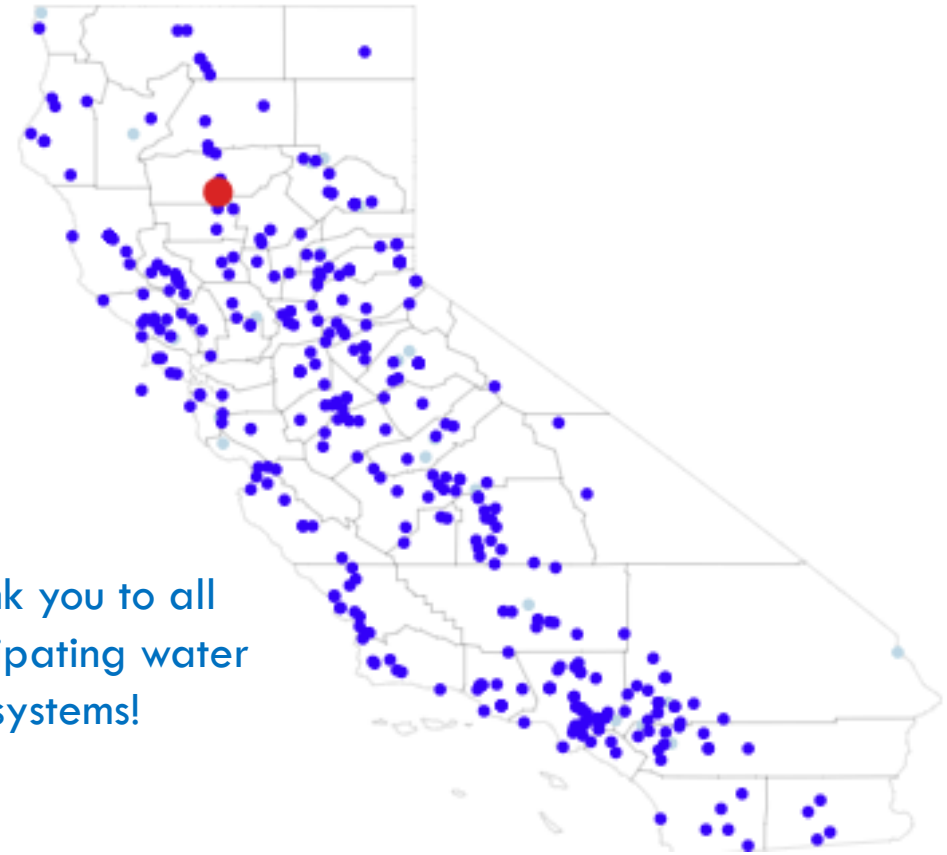
To be used by utility staff, governing boards, technical assistance providers, researchers, and more.

http://efc.sog.unc.edu/CAdashboard



- Pilot for California
- Community water systems with 500 – 3,300 connections
- Rates as of July 2020
- Published dashboard on August 31
- Available to the public at http://efc.sog.unc.edu/CAdashboard

Rate Sheets Collected by EFC Directly from Water Systems



Thank you to all participating water systems!

Additional Data Compiled by EFC, UCLA Luskin Center for Innovation, and SWRCB from

United States Census Bureau

California Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Office of the Controller, Eureka, State of California

United States Environmental Protection Agency

California Public Utilities Commission

USGS science for a changing world

Survey of Water Rates (Summer 2020)

- EFC invited community water systems with 500 – 3,300 connections that charge residential water rates to participate. 92% participated.
- Websites and direct communication
- Rate structures and computed bills for ranges of consumption
- Residential monthly water bills calculated for 0 – 1,800 cubic feet and 0 – 15,000 gallons

Metrics Included / Benchmarked

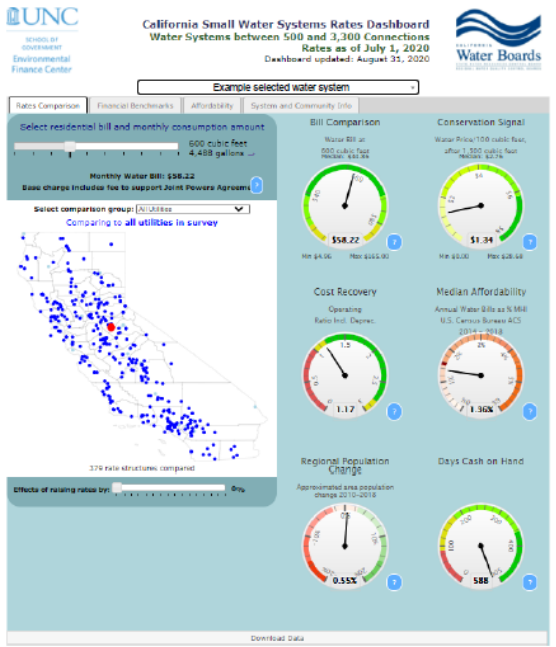
- Monthly water bill at various consumption points
- Water marginal price at high consumption
- Financial performance
  - Operating ratio
  - Simple cost recovery
  - Days cash on hand
  - Revenue per connection
- Regional change in population
- Affordability
  - Bill as % MHI
  - Bill as % of 20th Percentile Income
  - # of hours at minimum wage
  - % Poverty, unemployment
- Performance
  - Number of water quality violations
  - Number of monitoring violations
  - Compliance with HR2W
  - % of metered connections

For More Information

https://www.waterboards.ca.gov/safer/docs/introducing_california_small_water_systems_rates_dashboard.pdf

Introducing the California Small Water Systems Rates Dashboard

Benchmarking July 2020 water rates and other financial and performance data of community water systems serving between 500 and 3,300 connections throughout the State of California



The dashboard is free to use and open to the public at http://efc.sog.unc.edu/CAdashboard
Note: not compatible with Internet Explorer and older versions of Microsoft Edge.

What is the Dashboard?

The California Small Water Systems Rates Dashboard (dashboard) is an online information-sharing resource with an interactive interface that allows users to compare or benchmark residential rates, financial, and system performance data of community water systems serving between 500 and 3,300 connections. The dashboard utilizes an interactive interface that visualizes information via easy-to-understand graphics. The visualization allows the user to gain a multi-faceted understanding of the water system's financial health and performance. The dashboard is already populated with data for each water system and no data inputs are required. Simply select your water system to view its information on the displayed indicators.

This dashboard was commissioned by the California State Water Resource Control Board (SWRCB, or State Water Boards) as a pilot dashboard and resource for small community water systems. Feedback is being solicited from users to consider future developments. The dashboard was created by the Environmental Finance Center at the University of North Carolina, Chapel Hill (EFC at UNC), working with the UCLA Luskin Center for Innovation, during the spring and summer of 2020. The California Small Water Systems Rates Dashboard is similar to other Rates Dashboards created by UNC for water systems in other states.

What is its primary purpose?

The dashboard provides information that may be useful to water system managers, governing bodies, technical assistance providers, and other organizations in making decisions that affect the financial management of the water system.

Tracking a water system's financial health is a valuable management and decision-making tool. Benchmarking rates, affordability, financial capacity, and system performance metrics can help a water system measure and understand its strengths and identify potential areas of concern. For instance, benchmarking a water system's financial cost recovery metric can illustrate whether a system's low water rates, relative to other similar-sized systems' rates, may be adversely affecting its long-term financial stability. Monitoring key performance indicators, or how they compare to other water systems, allows decision-makers to assess current financial performance, determine whether rates or financial policies need to change, and plan for future growth and development of the enterprise. This kind of financial planning is integral to building a sustainably-managed utility that is able to protect public and environmental health and provide reliable service.

How do I access it? How much does it cost?

The dashboard is free to use and open to the public at http://efc.sog.unc.edu/CAdashboard. Features of the dashboard may not be compatible with Internet Explorer or older versions of Microsoft Edge. Recommend using alternative or updated browsers.

Who should use the California Small Water Systems Rates Dashboard?

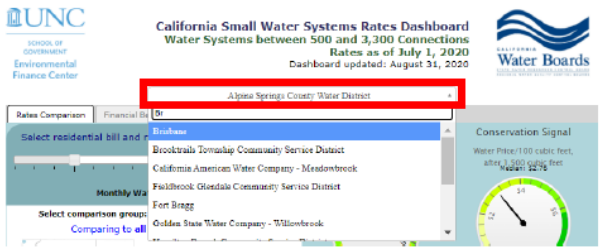
Everyone is welcome to use the dashboard. Examples of who might find the dashboard particularly useful for decision-making purposes include, but not limited to:

- Managers and staff of water systems to benchmark their rates and financial performance during budgeting season
- Local officials and governing board members to quickly assess the water system's performance and rates affordability while considering requests to adjust rates

Introducing the California Small Water Systems Rates Dashboard *October 30, 2020*

How do I use it? (Selecting the inputs)

1. Go to http://efc.sog.unc.edu/CAdashboard
   a. Features of the dashboard may not be compatible with Internet Explorer or older versions of Microsoft Edge. We recommend using alternative or updated browsers.
2. Click OK to display the dashboard.
3. Underneath the title, click on the dropdown menu and select the name of the water system you wish to display. You can type in a portion of the water system's name to filter the dropdown, alphabetical list of water systems.



4. Move the slider under "Select residential bill and monthly consumption amount" to the monthly consumption amount for which you want to compare the monthly water bill.

   a. The dashboard defaults to consumption points in hundreds of cubic feet (ccf). If you wish to select a consumption point in thousands of gallons instead, click the small arrow next to the word "gallons" and you'll be switched to an identical dashboard using 1,000 gallons instead of ccf.

Introducing the California Small Water Systems Rates Dashboard *October 30, 2020*

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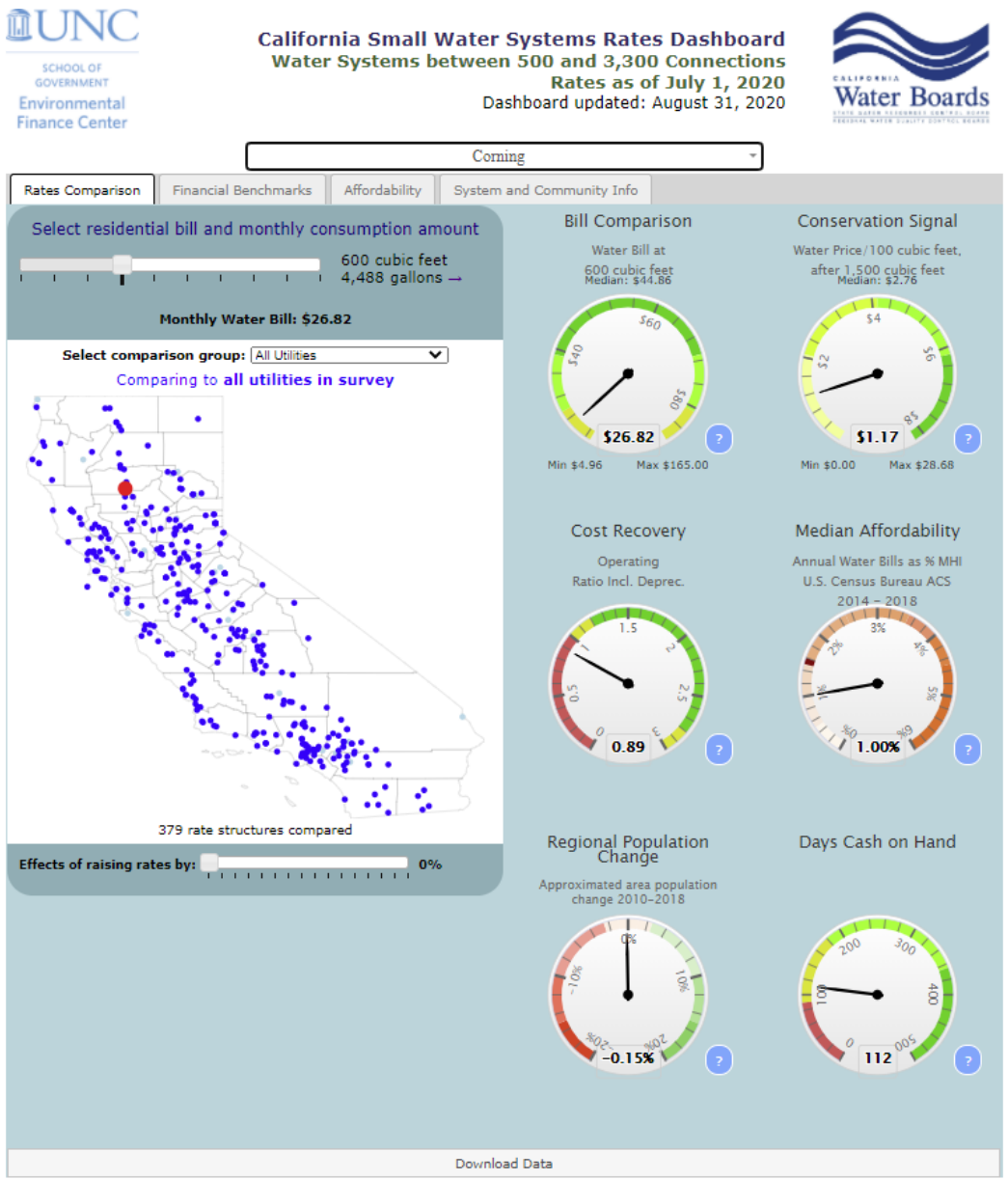

Live Demonstration of the California Small Water Systems Rates Dashboard

Corrections or Missing Data

Email efc@sog.unc.edu by **November 30, 2020** if:

- The data for your water system is inaccurate (for the displayed time period; will not update with more recent data).
- Your 500-3,300 connection community water system is not on the dashboard and you can provide the missing data.

Free One-on-One Assistance

If you would like one-on-one direct assistance by the EFC in understanding the metrics of the dashboard for your water system and a discussion on the key findings for decision-making, email Stephen Lapp at slapp@sog.unc.edu by **March 31, 2021**.

Or indicate your interest during this webinar.

We will follow up to schedule a time for a virtual meeting at your convenience.

Audience Poll Question 3

What are your initial impressions of the CA Small Water Systems Rates Dashboard?

- I like it!
- I'd like to see some modifications to the Dashboard
- I don't like the Dashboard
- I need more time before I can provide feedback

Next Steps

Kristyn Abhold
Needs Analysis Unit
Division of Drinking

Immediate Next Steps

- Incorporate public feedback to finalize **California Small Water Systems Rates Dashboard.**
  - Pilot Dashboard: https://efc.sog.unc.edu/resource/california-small-water-systems-rates-dashboard
  - Background Paper: https://www.waterboards.ca.gov/safer/docs/introducing_california_small_water_systems_rates_dashboard.pdf
  - Submit feedback by **November 30, 2020** to: SAFER@waterboards.ca.gov
  - Email Title: Rates Dashboard

- Is it useful? Should it be continued in the future? Should it be expanded? Suggestions for edits, additions, deletions, or clarifications? Any problems? How would you like this tool to be improved (if at all)?

Vision of the Future

- This is a pilot – assess value of collecting, analyzing and displaying financial information for small water systems.
- The State Water Board will begin collecting additional financial through the Electronic Annual Repot (eAR) and other methods to maintain data set.
- Continue to develop new tools and resources for supporting TMF capacity analysis and development.

Updates to the 2020 Electronic Annual Report (eAR)

New "Water Rates" Section: Customer Charges, Income, & Affordability

A. Water Rates & Charges

- A.1 Residential Water Rates & Charges
- A.2 Residential Service Connections
- A.3 Non-Residential Water Rates & Charges

B. Income: Revenue & Expenses (NEW)

- B.1: Total Revenue Generated from Different Sources
- B.2: Total Expenses

C. Affordability

- C.1 Shut-offs
- C.2 Residential Customer Assistance

Whole Section - Skipped/Hidden for TNC and NTNC

Discussion Topic: Open Q&A

Do you have any questions about or recommendations on how UNC should refine the CA Small Water Systems Rates Dashboard?

Ways to Participate-

1. **Watch ONLY:** Visit video.calepa.ca.gov
2. **Email:** Submit a comment or ask a question that will be read aloud, send an email to: safer@waterboards.ca.gov
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- Please wait for your name to be called.
- Public comments are 3 minutes each.

Closing Remarks & Gratitude

Thank you!

Questions or comments please contact us:

SAFER@waterboards.ca.gov

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