



# CA DRINKING WATER WORKSHOPS

**FREE Classroom & Online:**  
**July–December 2023**

Registration open | Links available inside

**Presented by:** Rural Community Assistance Corporation (RCAC)

**Funded by:** California State Water Resources Control Board



**RCAC**  
[www.rcac.org](http://www.rcac.org)



## About the Workshops:

The goal of these workshops is to provide information to help small, rural water systems deliver safe, reliable drinking water to their customers and to demonstrate how to properly manage a water system for long-term viability.

Financial stability is the key to success for most water systems.

The California State Water Resources Control Board has identified 13 Technical, Managerial and Financial (TMF) elements necessary for public water systems.

The 13 elements are:

### Technical:

- Consolidation Feasibility
- System Description
- Certified Operators
- Operations Plans
- Source Capacity
- Training

### Managerial:

- Ownership
- Water Rights
- Organization
- Emergency Response Plan
- Policies

### Financial:

- Budget Projection / Capital Improvement Plans
- Budget Control



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## Contact Hours & Certificates:

Each classroom workshop qualifies for six (6) drinking water contact hours. Exceptions include the AB54 & 240 class, which qualifies for two (2) drinking water contact hours.

Each online, one-part workshop qualifies for two (2) drinking water contact hours. Each online, Deep Dive workshop qualifies for four (4) drinking water contact hours. Each online series, qualifies for two (2) drinking water contact hours per session.

Certificates for all online sessions are available for self-printing within 48 hours through your RCAC website registration/Portal account. Certificates for all classroom sessions are available for self-printing within 10 business days through your RCAC website registration/profile account. RCAC and the Water Board require signatures to verify attendance for in-person trainings and we must wait to receive the original classroom sign-in sheets from the RCAC trainer in order to verify attendance.

**Certificates will no longer be provided at the conclusion of each classroom training.** If you would like to request a physical copy of a certificate, you may request this at the time of signing in to the event and a copy will be mailed to you within 20 business days.

### Cost:

**There is no fee to attend these workshops.** Priority is given to smaller water systems. For classroom trainings, handouts will be available for those who register at least three weeks before the class date.

## COVID-19 Response

We are monitoring the situation and will adhere to state and county COVID-19 guidelines/restrictions. All classroom workshops are subject to change in an effort to ensure public and trainer safety, and to comply with state and county guidelines/restrictions.

## July–December 2023 On-Site Workshop Topics and Locations



### CLASSROOM WORKSHOPS

- AB54 = AB54 and AB240: Ethics for Mutual Water ...
- AMC = Asset Management & Capital Improvement ...
- BSW = Budgeting for Small Water Systems
- CNC = California's New Cross-Connection Control ...
- CSB = California Senate Bill 552 ...
- CSD = Cyber Security for Drinking Water Systems
- CTF = CalTAP Fair
- DFC = Dealing with 'Forever Chemicals': PFAS is ...
- DWN = Dealing with Nitrates Contamination
- ERP = Emergency Response Planning
- GTL = Get the Lead Out: Lead and Copper Rule Revisions
- IQD = Intro to Quickbooks Desktop
- ISW = Introduction to Surface Water Treatment ...
- NBB = No Bad Bugs: Protecting Your System ...
- PNY = Public Notification: Your Customers Have ...
- TGC = Tackling Groundwater Contamination Symposium
- UFS = Understanding Financial Statements
- WOC = Water Operator Certification Prep

# CalTAP Fair



## CalTAP Fair: Building a Resilient Water Future

**September 14, 2023 • Redding, CA**

*Red Lion Hotel Redding • 1830 Hilltop Drive • Redding, CA 96002*

Join us and learn about the California Technical Assistance Providers (CalTAP) programs, funded by the California State Water Resources Control Board. These programs provide onsite technical assistance and free workshops, as well as many other resources, for water professionals throughout California.

This CalTAP Fair for Water Systems qualifies for six (6) contact hours.

See page 18 for more information. (Lunch is one hour and on your own.)

## CalTAP Fair • September 14, 2023 PROGRAM AT A GLANCE

8:00 AM Registration Opens

8:30 AM Welcome & CalTAP Fair Presentations

10:30 AM Regulations Update

### Technical Track

### Managerial Track

### Combined Track

1:00 PM Nitrate Treatment

Water Shortage Contingency Plan

Capital Improvement Planning

2:40 PM Groundwater Well Monitoring

Managing the New Lead & Copper Rule

Funding Your CIP

4:00 PM Adjourn

### The CalTAP providers are:

- California State Water Resources Control Board
- California Rural Water Association
- Office of Water Programs, California State University Sacramento
- Rural Community Assistance Corporation (RCAC)
- Self-Help Enterprises
- U.S. Environmental Protection Agency





# Online Workshops

**RCAC's online trainings are instructor-led, interactive, internet-based workshops designed to provide quality training without the participant having to travel. Each session is two hours and qualifies for two contact hours.**

## Registration

In order to receive contact hours for online workshops, **each person must be registered with their own email address and complete an online survey at the end of the training.**

### **Are you attending as a group, but not watching from your own computer?**

Attendees do not need to participate from their own computer/device for the online trainings, but will need to complete an evaluation to receive credit. **Your group leader will need to inform RCAC ([registration@rcac.org](mailto:registration@rcac.org)) of attendees who will be viewing sessions as a group prior to session start. Sign-in sheets are NO LONGER accepted to validate attendance for contact hours for online workshops.**

## Online certificates

Certificates are available for self-printing within 48 hours through your RCAC website registration/profile account. This allows RCAC time to confirm your participation in the online training.

## Training platform

RCAC uses the GoToTraining™ online platform. We recommend that you sign-in to the session 15 to 30 minutes early to download the GoToTraining desktop app (if needed). **All online workshop registrations require a valid email address.** This is how the links (invitations) to the training are sent to registered participants.

## Technical recommendations

Online workshops will be hosted on the GoToTraining platform. The recommended web browsers are Edge and Chrome. Use of other browsers may lead to functionality issues. If using an IOS device, the GTT application should be downloaded and used.

We recommend using a headset or speakers with your computer. You do not need a microphone for this class. You can use the chat box to type your questions and comments to the instructors and others in the training if you choose. GoToTraining has links available for you to test your connection and/or audio and to provide assistance if you are having problems connecting to a session. **If you continue to have problems connecting, contact GoToTraining Tech Support, toll free, at (855) 352-9002, and choose option 1.**

## Cancellation

Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have an attendee limit for online workshops.

Cancellation can be made by email at [registration@rcac.org](mailto:registration@rcac.org) or by phone at (916) 447-9832 x 1429. Please do not cancel through GoToTraining.

**IMPORTANT: Failure to attend three workshops for which you reserved a seat (and did not cancel) in any six-month period will disqualify you from attending workshops in the following six-month period.**

**PLEASE CANCEL A MINIMUM OF 48 HOURS IN ADVANCE TO ALLOW OTHERS TO ATTEND THE TRAINING.**

Cancellation can be made by email at [registration@rcac.org](mailto:registration@rcac.org) or by phone at (916) 447-9832 x 1429. Please do not cancel through GoToTraining.

## Register now.

Click on the title or time of any training to access the registration page.

### Water Supply & Sources

**July 11, 2023 • 10:00 am & 2:00 pm**

The essential mission of every water system is to provide an adequate volume of high-quality water at the lowest sustainable cost. The key words here are “adequate volume” and “high-quality.” This learning event will provide operators, managers and board members of small water systems with a basic knowledge of how to determine the supply requirements (in terms of both volume and quality) of their water supply and to provide a basic understanding of the two types of water sources (ground-water and surface water) commonly used by small water systems. This will include the concepts of max day demand, peak hour demand, diurnal demand and source reliability. There will be a focus on the supply adequacy requirements of the California Water Works Standards.

Participants will learn:

- Water system demand – How much is enough?
- High-quality water – How clean is clean enough?
- Types of water sources commonly seen in small systems
- Source water protection planning

Operator Basics Series: The recommended audience includes system managers, new or existing water system operators, managers and especially board members.

### Water System Basic Operations

**July 12, 2023 • 10:00 am & 2:00 pm**

A public water system manager and operator have a lot of irons in the fire. They answer to their customers, local government (board of directors), state and county primacy agencies, other state/county/federal agencies and various businesses/industries. Where does one begin? It all begins with operations, and the managers/operators need to ensure that safe water is consistently delivered to the customers; the water is under sufficient pressure; all required water testing is performed promptly and with proper testing techniques; and that all records are documented accurately and as required. This workshop will utilize the trainer’s experiences, as well as the experience of participants in the workshop, to explore these topics and others as encountered by the experienced managers/operators that will be attending this training.

Participants will learn:

- About doing “the rounds”
- Recordkeeping and reporting
- Daily/weekly/monthly tasks
- Their responsibility to the public
- About dealing with the board of directors or other local government

Operator Basics Series: The recommended audience includes local government (board of directors), managers and operators.

### Chromium in Drinking Water: Return of the Chromium-6 MCL

**July 18, 2023 • 10:00 am & 2:00 pm**

Chromium in drinking water has been regulated since 1977, but hexavalent chromium, more commonly known as chromium-6, has had a turbulent regulatory history. In 2014 chromium-6, due to its increased carcinogenicity, had its own maximum contaminant level (MCL) established in California. In 2017, that MCL was invalidated. Now a new MCL has been proposed. Chromium-6 occurs naturally in Californian rock formations and is an industrial contaminant. In 2017, it was found in almost 4,000 wells. This workshop will help systems prepare for the new MCL and make informed decisions on treatment techniques.

Participants will learn:

- Basic info regarding chromium and its ionic forms
- The adverse health effects caused by chromium-6 exposure
- The regulatory history of chromium
- What to expect from regulations in the future
- Treatment techniques
- Practical considerations when choosing treatment techniques

Regulations Basics Series: The recommended audience includes operators, managers and board members that have an interest in providing chromium-safe water to their customers.

### Groundwater Well Operation & Maintenance

**July 19, 2023 • 10:00 am & 2:00 pm**

How is your well performing? How do you know what is going on deep in the ground? Like all equipment, water wells must be maintained to ensure long life and quality water within the system. Wells need to be monitored regularly to compile vital information on the health of the source.

Participants will learn:

- Well inspection
- Well operation and maintenance practices
- Well pump basics and how to properly throttle a well pump
- Groundwater quality concerns and trouble indicators
- Measuring drawdown and tracking over time
- Well sounders: Which one is right for me?

Operator Basics Series: The recommended audience includes operators, management, water system personnel or anyone with an interest in better understanding the value of operating a safe drinking water system.

## Board Roles & Responsibilities

**August 1, 2023 • 10:00 am & 2:00 pm**

There are many responsibilities attached to serving on a water board. Many board members are unaware of the scope and breadth of these responsibilities, which range from fiscal responsibility to environmental compliance, ethics, avoiding conflicts of interest and familiarity with state and federal laws. This workshop will give participants the information and resources they need to understand a board's legal responsibilities and become proactive and informed board members.

Participants will learn:

- Why a public drinking water supply system must operate as a viable business
- The concept of capacity development for technical, managerial and financial (TMF) elements, and how each of the TMF elements are interrelated
- The key legal responsibilities of governing bodies in the oversight of a water utility
- Board practices that can help water boards stay informed and respond proactively

Board Basics Series: The recommended audience includes system managers, new or existing board members and those considering serving on a water system board.

## Preparing for a Sanitary Survey

**August 2, 2023 • 10:00 am & 2:00 pm**

It is the ultimate responsibility of every operator, manager and board member to provide safe drinking water to their customers. The prevention and removal of water contaminants is an essential job function. Sanitary surveys are an important tool in helping water systems provide safe drinking water. The Groundwater Rule puts increased regulatory emphasis on conducting sanitary surveys and correcting deficiencies before they lead to water contamination events. This course will give participants an overview of how to prepare for a sanitary survey.

Participants will learn:

- What a sanitary survey entails
- The benefits of conducting your own sanitary survey to provide safe drinking water to your customers
- The sanitary survey requirements in the Groundwater Rule
- How to access resources to help you prepare

Operator Basics Series: The recommended audience includes board members, general managers, financial managers and operators.

## Internal Controls

**August 15, 2023 • 10:00 am & 2:00 pm**

The purpose of this training event is to provide California small water systems with the tools necessary to safeguard assets and minimize risks to financial objectives. Many systems lack basic understanding of how to establish processes and procedures designed to improve the reliability of financial reporting and accountability to stakeholders; prevent loss of resources and public assets; and achieve budget targets. This training will be presented to provide managers and governing bodies with basic knowledge and emphasize tools/resources available to understand how to develop adequate internal controls needed to strengthen the water enterprise's financial health.



Participants will learn:

- To recognize what internal controls are and their importance to financial sustainability
- To understand the five key elements of internal control
- To evaluate where there may be gaps in internal controls duties
- To identify ways to incorporate separation of duties

Financial Basics Series: The recommended audience includes governing bodies, managers, accounting staff and operators.

## Groundwater Treatment Techniques

**August 16, 2023 • 10:00 am & 2:00 pm**

Eighty-five percent of California's public water systems use only groundwater as their primary source of water. A significant number of California communities rely on contaminated groundwater sources for their public drinking water supply, requiring the source to undergo a comprehensive treatment effort. Groundwater treatment is a complex topic. The range of contaminants of concern to safe drinking water is broad, covering essentially the entire chemical spectrum. Occurrence of groundwater contamination is similarly diverse, encompassing both naturally occurring and man-made contaminants. Operators of groundwater systems therefore need a comprehensive reconnaissance-level of knowledge of groundwater treatment technologies and how these technologies are applied to removal/control of specific groundwater contaminants.

Participants will learn:

- Treatment for the seven most common groundwater contaminants:
  - Microbial contaminants (bacteria and virus)
  - Iron and manganese
  - Arsenic
  - Nitrate
  - Uranium
  - Organics
  - VOCs
  - SOCs
  - Hydrogen sulfide

Operator Basics Series: The recommended audience includes operators, managers and board members.

## Storage & Distribution

**August 29, 2023 • 10:00 am & 2:00 pm**

This module presents the varying operation of water storage systems and distribution piping. The distribution and storage systems are the unrecognized backbone of any water system. However, due to their inconspicuous nature, problems are seldom realized, and maintenance is seemingly nonexistent. The fact is that most bacteriological contamination takes place in the distribution system. This alone should be enough to warrant prudent maintenance of storage tanks, piping and valves in the system. Through purposeful flushing procedures and adequate planning, system downtime can be minimized and water quality can be improved. This workshop will give participants the information and resources they need to understand proper operation and maintenance of their storage and distribution systems.

Participants will learn:

- Common components and types of water distribution system piping and storage
- Maintenance guidelines and programs that reduce long-term expenditures
- Possible pathways to reduce contamination
- Inspection and record-keeping procedures that improve water quality

Operator Basics Series: The recommended audience includes system operators, new board members and those considering becoming certified operators of a water system.

## The Safe Drinking Water Act

**August 30, 2023 • 10:00 am & 2:00 pm**

Throughout the country, small water system staff adhere to regulations to provide safe drinking water for their customers. The drinking water system staff follow directions from the state or county health department but may not realize that these regulations began at a federal level. This workshop will teach operators, managers and board members how and why these regulations exist.

Participants will learn:

- The basis for the Safe Drinking Water Act (SDWA) and the related U.S. code and federal regulations
- How drinking water events correspond with amendments to the SDWA
- How to look up drinking water regulations under development and review

Board Basics Series: The recommended audience includes all water system operators and managers.

## Before you Sign on the Dotted Line: Pre-Design Treatment Considerations

**September 6, 2023 • 10:00 am & 2:00 pm**

Most very small water systems just pump groundwater. Maybe they add a bit of chlorine before sending it to the distribution system. They have neither knowledge nor experience with water treatment systems. What happens then when the laboratory calls and informs you that you have [INSERT CONTAMINANT NAME HERE] in your source at concentrations exceeding the drinking water standards? How do you determine what the "best" water treatment is for your system?

The objective of this training is to guide small water systems through the process of choosing the most appropriate choice of water treatment. The goal is to provide the questions to ask and basic knowledge about the most common water treatment technologies so that the utility can make knowledgeable and informed decisions about what will most likely be the largest purchase the system will ever make.

Because very small water systems are not generally up-to-speed on the groundwater treatment technologies, we will begin with an overview of the most common treatment systems, including:

- Granular activated carbon (GAC) filtration
- Proprietary adsorptive media filtration
- Single pass ion exchange media filtration
- Onsite regenerated ion exchange media
- Coagulation/filtration processes

In addition, we will explore how each of these treatment techniques is best applied to the removal of specific groundwater contaminants.

Of course, as with any modification of treatment to your system, maintaining good communications with your DDW or LPA regulator is critical to a successful project.

And finally, we will present "10 Essential questions to ask before beginning your water treatment project". These questions will assist the water system in making informed decisions in choosing the "best" water treatment system for their utility.





## Go Small and Go Home: Point-of-Use and Point-of-Entry Treatment Systems

**September 19, 2023 • 10:00 am & 2:00 pm**

Small public water systems that face challenges associated with removing naturally occurring contaminants from potable water supplies often find the path to compliance challenging. Prior to 1996, all water systems were required to use centralized treatment systems for the removal of naturally occurring contaminants. The 1996 Amendments to the Safe Drinking Water Act (SDWA) removed the prohibition on using point-of-use (POU) and point-of-entry (POE) treatment devices for small public water systems in order to achieve compliance with some of the maximum contaminant levels (MCLs) established under the National Primary Drinking Water Regulations. These amendments have expanded the options small water systems may use to meet treated water standards for naturally occurring contaminants.

POU and POE treatment devices rely on many of the same treatment technologies used in centralized treatment plants. However, while centralized plants treat all water distributed to consumers to the same level, POU and POE treatment devices treat only a portion of the total flow. A POU device treats only the water intended for direct consumption (drinking and cooking), typically at a single tap or a limited number of taps, while a POE device treats all the water entering a single home, business, school or facility. Ultimately, POU or POE treatment devices may be an option for public water systems where central treatment is not affordable.

Participants will learn:

- Types of POE/POU treatment technologies
- POE/POU regulatory requirements and restrictions
- How to plan for a POE/POU system
- The installation, maintenance and management of POE/POU systems
- Compliance and performance monitoring of POE/POU systems

Operator Basics Series: The recommended audience includes operators, managers and board members of very small water systems.

## Capacity Building Through Consolidation

**September 20, 2023 • 10:00 am & 2:00 pm**

This workshop will discuss the spectrum of opportunities for partnering with others. From casual information sharing or operational support, to formal consolidation or joint powers agreements, we will review the challenges and benefits of partnering up. By creating partnerships and opportunities for working together we can solve some of our small system challenges.

Participants will learn:

- How to evaluate their system's potential for partnership
- Options for working with other systems
- The next steps to start or continue the conversation

Board Basics Series: The recommended audience includes anyone involved with a small water system.

Participants will learn:

- Common water treatment technologies for small water systems
- How different treatment techniques remove specific groundwater contaminants
- The most appropriate water treatment choice for your system
- The importance of maintaining communication with regulators during treatment projects
- Essential questions to ask when selecting a water treatment system.

Operator Basics Series: The recommended audience includes small water system operators and managers.

## Mapping Small Water Systems with Free Google Earth Pro Desktop

**September 7, 2023 • 10:00 am & 2:00 pm**

For a water utility, asset management plays a significant role in overall financial performance. With the use of effective asset management, it is possible to reduce overall infrastructure costs instead of waiting until the assets fail, incurring higher than necessary costs. Mapping a water system's assets can greatly assist with developing an asset management plan and your ability to locate assets during an emergency. Participants will receive a step-by-step tutorial on how to get started on mapping their water system's assets using Google Earth Pro for project planning, public presentations and developing capital improvement plans.

Participants will learn:

- The basic tools of Google Earth needed to map water system assets
- How to import scanned maps and handheld GPS coordinates
- How to derive water main pipe lengths, project planning and cost estimating
- How to edit, save and share your Google Earth maps with project team members and the public

The recommended audience includes operators, managers and board members.

Participants should download and install the free Google Earth Pro software prior to the class (<https://earth.google.com/web/>).



## AB54 & AB240: Ethics for Mutual Water Company Board Members

**September 21, 2023 • 6:00 pm**

By law, all mutual water board members are required to have two hours of ethics training within six months of taking office and every six years following. This training is designed to provide system longevity and help ensure that board members meet their legal responsibilities. Required training topics include conflicts of interest, fiduciary responsibilities, Safe Drinking Water Act compliance, long-term financial management and capital improvement planning. We will also cover the AB240 Open Meeting Act requirements, which affect mutual water systems as of Jan. 1, 2014. This workshop allows mutual water systems to comply with this regulation and helps prepare them to better govern their mutual water company. This workshop meets the legal requirement for board members' ethics training under AB54.

Participants will learn:

- Requirements of AB54 and AB240
- Financial conflicts of interest to avoid
- Strategic planning
- Fiduciary responsibilities
- Capital improvement planning
- How to comply with the Safe Drinking Water Act

Board Basics Series: The recommended audience includes directors, board members and managers of mutual water companies.

## Pathogens in Drinking Water

**October 17, 2023 • 10:00 am & 2:00 pm**

Disease outbreaks in water systems are rare, but they can and do happen. There are hundreds of known disease-causing organisms that can contaminate water, and new ones are being discovered every day. Even 40 years ago, pathogens like Giardia were not believed to be harmful to humans.

Participants will learn:

- Types of disease-causing organisms that are of concern for water systems
- Regulations addressing contamination
- How to operate and maintain your water systems to minimize the possibility of microbial contamination

Operator Basic Series: The recommended audience includes board members, managers and operators.

## Capital Improvement Planning

**October 18, 2023 • 10:00 am**

For any water utility, even a very small water system, operators have a very important role in asset management (e.g., water tanks, pumps, computers, buildings, etc.) which is key in the overall financial performance and the sustainability of water systems. When boards, managers and operators work together, and with proper planning, emergencies can be avoided and overall costs will be reduced. A capital improvement plan (CIP) prioritizes the replacement or installation of infrastructure assets. It includes the forecasting and budgeting of capital outlay and is an integral part of budgeting, rate-setting and project funding.

Participants will learn:

- What a CIP is and why a water system needs one
- Strategic planning to prioritize projects
- How to implement a CIP and access funding resources

Financial Basics Series: The recommended audience includes board members, managers, operators and financial managers.

## Get the Lead Out: Lead & Copper Rule Revisions

**October 24, 2023 • 10:00 am & 2:00 pm**

After 30 years, the EPA has officially passed new regulations for the Lead and Copper Rule. These revisions are a major step toward keeping communities safe from lead. The new Lead and Copper Rule Revisions (LCRR) will require water systems and water system operators to rethink how they address lead and copper in their systems. These new requirements will require a thorough understanding of the LCRR's requirements so you can effectively engage in short- and long-term actions that will ensure compliance and safe water for all your customers.

This webinar will guide drinking water operators through the new lead and copper site selection process, criteria and sampling plans so that water supplies maintain compliance for lead and copper under the Safe Drinking Water Act.

Participants will learn:

- The requirements of the new lead service line inventory
- Lead service line replacement requirements
- Monitoring childcare and school facilities
- New monitoring requirements
- Expanded communications programs
- More stringent responses to elevated lead levels

Regulations Basics Series: The recommended audience includes operators, managers and board members.

## Budgeting for Small Water Systems

**October 25, 2023 • 10:00 am & 2:00 pm**

In order to remain viable, all public water systems need to acquire and manage sufficient financial resources to achieve and maintain compliance with regulatory requirements. One primary tool to become and remain viable is developing and maintaining a comprehensive budget. This workshop will show board members, managers and operators how to develop a budget; how to identify revenues and expenses; methods to balance the budget; and how to review a budget comparison report on a regular basis.

Participants will learn:

- How to prepare a budget
- How to identify revenue and expenses
- How to identify fiscal policies to assist in balancing the budget
- How to review the budget comparison report on a regular basis

Financial Basics Series: The recommended audience includes directors, board members and managers of mutual water companies.

## Cyber Security for Drinking Water Systems

October 26, 2023 • [10:00 am & 2:00 pm](#)

Recent cyber-attacks on water and wastewater systems have manipulated treatment processes, disabled process control and business enterprise systems and stolen proprietary data. Cybersecurity best practices and incident response planning can prevent or mitigate many of these attacks and are essential to the sound operation and management of water and wastewater systems.

Participants will learn how to recognize cybersecurity threats, complete the self-assessment questionnaire and utilize the water industry cybersecurity controls for small systems. Based on the cybersecurity self-assessment and cybersecurity controls for small utilities, participants will learn how to identify at-risk areas and take actions to protect their systems.

Participants will learn:

- Why cybersecurity is important
- How to conduct a self-assessment of your system to identify vulnerabilities
- Cybersecurity controls for small water systems

Operator Basics Series: The recommended audience includes board members, managers and operators.

Pre-work will be made available for attendees, and those who complete the pre-work qualify for extra credit contact hours.

## Drought Planning, Response and Recovery: A Closer Look at SB552

October 31, 2023 • [10:00 am](#)

Small water systems in California have entered a new era of drought planning and reporting. Senate Bill 552 mandates new actions be taken by state, county and small water suppliers. Do you know what to do? There are new responsibilities to reduce the risk of inadequate water supply during a water shortage event. We will identify potential water shortage risks for small water suppliers and rural communities, and we will explore some of the requirements and resources along the road to improved drought resilience.

Participants will learn:

- New requirements in California's Drought Resilience & Water Shortage Response
- Online tools for exploring and identifying water shortage risks
- Communication and coordination guidance for water suppliers, customers and government
- Planning strategies and resources for water shortage vulnerability and disaster preparedness

Regulations Basics Series: The recommended audience includes operators, managers, board members and elected officials.

## Revised Total Coliform Rule

November 7, 2023 • [10:00 am & 2:00 pm](#)

Sampling for total coliforms and E. coli in the water system is one of the most important things an operator can do. The Revised Total Coliform Rule (RTCR), effective April 2016, affects every public water system. These revisions to the Total Coliform Rule will affect how operators and managers respond to total coliform positives (TC+) and require steps to analyze the integrity of the system as a result of positive samples. Investigation and corrective actions are at the forefront of the RTCR and knowing how to complete a level 1 assessment can be the difference between compliance and violation. This workshop will focus on reviewing triggers for level 1 and level 2 assessments, who is expected to perform them and how to conduct an assessment with examples and small group exercises.

Participants will learn:

- Repeat sampling requirements
- New procedures for the month following a TC+
- What to do if you have a positive E. coli result
- When an assessment of a system is needed
- How to complete a level 1 assessment of your system
- Tips on system inspection/investigation

Regulations Basics Series: The recommended audience includes operators, managers and board members.

## Disinfection By-Products Rule

November 29, 2023 • [10:00 am & 2:00 pm](#)

Certain commonly used drinking water disinfectants can react with naturally occurring materials in the water to form disinfection by-products (DBPs), which may pose long-term health risks. The Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and the Stage 2 Disinfection By-Product Rule (DBPR) are the second phase of regulations meant to strengthen protection against microbial contaminants, and at the same time reduce the potential health risks of DBPs. This workshop will examine the factors and causes of DBP formation and the regulatory framework of the Stage 1 and Stage 2 DBPR.

Participants will learn:

- The differences between the Stage 1 and Stage 2 rules
- How to calculate locational running annual averages (LRAA) and flow-weighted averaging for compliance reporting
- How to identify a combined distribution system (CDS) and whether it applies to you
- Alternative disinfectants and application practices that may reduce or eliminate DBP formation

Regulations Basics Series: The recommended audience includes operators and managers of water systems that chlorinate their water.

## Water System Leak Repair

**November 30, 2023 • 10:00 am & 2:00 pm**

One of your customers has called in a potential leak in your distribution system. Does your operations plan cover the steps to get your leak fixed safely and quickly? In this workshop we'll cover some of the basics to keep your system operational and protect the water supply.

Participants will learn:

- How to identify leaks
- Assessing local resources and available tools
- Customer notification procedures
- Various repair methods and techniques
- Flushing methods
- Sampling and reporting requirements

Operator Series: The recommended audience includes system operators, technicians, and managers.

## Beat the Cyanobacterial Blues: What You Need to Know About Cyanotoxins

**December 5, 2023 • 10:00 am**

Cyanobacteria, formerly referred to as blue-green algae, are found naturally in lakes, rivers, ponds and other surface waters. When certain conditions exist, such as in warm water containing an abundance of nutrients, they can rapidly form harmful algal blooms (HABs). Some HABs are capable of producing toxins called cyanotoxins, which can pose health risks to humans and animals through drinking water and recreational water exposure. Additionally, HABs can create taste and odor problems in drinking water, which do not have adverse human health impacts but can create an earthy and musty taste and smell.

The purpose of this learning event is to provide operators of small water systems with a basic knowledge of the causes, health effects and treatment of cyanobacteria and their associated endotoxins in drinking water. Contaminants related to algal blooms are a relatively new area of concern for water systems using surface supplies.

Participants will learn:

- Basic information about cyanobacteria and the toxins associated with these organisms
- Information about harmful algal blooms (HABs), providing an understanding of the characteristics and conditions of that result in HABs, including California's HAB Incident Reporting Map
- An overview of the treatment technologies for the removal of cyanotoxins in the drinking water treatment plant, including a framework for the management of cyanotoxins in a drinking water supply

Regulations Basics Series: The recommended audience includes operators, managers and board members of water systems that use surface water supplies.



## Surface Water Treatment Rule

**December 5, 2023 • 2:00 pm**

It's been raining for three straight days and your effluent turbidity has just spiked at your water treatment plant. What monitoring and reporting procedures do you follow? What do these new regulations say? Is your treatment method still acceptable? What do you need to report and when? This workshop is designed to help you understand surface water treatment and monitoring regulations by reviewing the basis for current and future regulations.

Participants will learn:

- The Surface Water Treatment Rule
- Long-Term 1 and Long-Term 2 Enhanced Surface Water Treatment Rules
- Existing and future water quality monitoring requirements
- Basic treatment methods and technologies
- Regulatory reporting requirements

Regulations Basics Series: The recommended audience includes operators and managers of surface water treatment facilities.



## Developing Operations Plans

**December 6, 2023 • 10:00 am**

Your only licensed operator has just left town due to a family emergency and handed you the phone number of a certified operator in the next town. Will the substitute operator know how your system works and what needs to be done daily to keep the water safe and in compliance? A properly prepared operations and maintenance (O&M) plan is one of a water purveyor's most important documents. The O&M plan is a "living" document that explains how a public water system is to be operated and maintained on a day-to-day basis to ensure public health, safety and compliance with applicable regulations. In addition to being an important training tool for new staff, the O&M manual serves as a practical handbook by which a qualified substitute operator or a new operator can operate and maintain the system in a safe and reliable manner in absence of the system's primary operator.

- The vital elements that comprise an O&M plan
- The most important tools needed for developing an O&M plan
- Policies and procedures for keeping your O&M plan updated
- Free resources and templates for developing O&M plans

Operator Basics Series: The recommended audience includes water system operators, managers and maintenance staff.

## Navigating State Funding

**December 14, 2023 • 10:00 am**

Does your system have a capital improvement project and you are you trying to figure out where to start in the state funding process? In this class you will learn about the resources available to identify funding opportunities, the requirements of a state funding application and how to request assistance so your system is prepared to execute a funding agreement.

Participants will learn:

- How to request technical assistance and the types of assistance available
- Resources for identifying state funding opportunities
- What to expect when completing a funding application

Financial Basics Series: The recommended audience includes managers, board members and operators.

## Enhancing the Skills & Knowledge of Utility Clerks

**December 19, 2023 • 10:00 am & 2:00 pm**

Would you like to have a deeper understanding of the tasks expected of you and be able to build on the knowledge and skills that you may already have? We invite you to join us for this training workshop where we plan to dive into foundational duties and tasks that utility clerks are responsible for. This workshop will grant insight for those who are new to their role as a utility clerk, but also offer the opportunity for those with experience to gain enlightenment.

Utility clerks are tasked with many responsibilities and the goal of this training is to help build the skills and knowledge needed to perform those duties effectively and with confidence. In order for our small utilities to provide quality service to their customers, our office staff need to be prepared and equipped with tools that enable them to perform the necessary tasks that aid in the utility's management and sustainability.

Participants will learn:

- The board duties that utility clerks fulfill
- The administrative responsibilities that utility clerks perform
- The clerk's responsibility of financial management
- The importance of a clerk's role in public relations

Board Series: The recommended audience includes clerks, managers, board members, and operators

## Rate Setting

**December 20, 2023 • 10:00 am**

Often, many small water systems recover their operating costs but are not able to fund reserves and other balance sheet obligations through their customer rates. Water rates should recover the "true costs" of providing the service. Many systems' governing bodies and management lack a basic understanding of how much money needs to be collected from customer rates to recover operating costs and fully fund debt service and reserve account funding. This training will be presented to provide attendees with working knowledge and emphasize tools/resources available to understand how to develop an adequate rate structure to provide the ability to meet short- and long-term financial obligations. Finally, the workshop will cover the latest interpretations of Prop. 218 procedures and limitations in setting customer rates in California.

Participants will learn:

- How to determine if a rate adjustment is necessary
- The four basic types of rate structures
- How to calculate base and flow rates
- To calculate base rates according to meter size
- How to set rates that are compliant with Proposition 218

Financial Basics Series: The recommended audience includes board members, general managers, financial managers and operators.



# Online Deep Dive Workshops

**RCAC is offering online, four-hour deep dive trainings that are instructor-led, interactive, internet-based workshops designed to provide in-depth quality training without the participant having to travel. Attendees are expected to attend the entire four-hour session, partial credit will not be awarded.**

## Understanding Financial Statements

**July 13, 2023 • 8:30 am–12:30 pm**

The purpose of this training is to provide small water systems in California with the tools necessary to plan for financial stability, specifically reading financial statements and interpreting that information. Many systems lack a basic understanding of using financial statements to make the informed financial decisions necessary to provide for the water system's sustainability. This training will be presented to provide decision makers with working knowledge and emphasize tools/resources available to understand information contained in financial statements about their water enterprise's revenue, expenses, profitability, debt load and ability to meet its short- and long-term financial obligations.

Participants will learn:

- To identify where on which financial statements to find specific financial information
- What each financial statement reveals about the financial health of the system
- To calculate financial indicators, including liquidity ratios, efficiency ratios and solvency ratios, and understand/interpret these indicators

Financial Basics Series: The recommended audience includes board members, general managers, financial managers and operators.

## Pumps & Motors Troubleshooting

**November 8, 2023 • 8:30 am–12:30 pm**

How many times has this happened to you? You discover that one of your pumps is not performing like you think it should, or it will not run at all. What are your next steps? When should you call in an expert? These questions and more will be answered in the Pumps and Motor Troubleshooting session. This will be an extensive course in the most common pumping and electrical system issues that could leave you out of water.

Participants will learn:

- Electric motor troubleshooting and common issues
- Basic types of centrifugal pumps and their characteristics
- How to calculate TDH in a fluid pumping system
- How to calculate friction loss
- How to read pump curves
- Centrifugal pump performance testing and troubleshooting techniques

Operator Basics Series: The recommended audience includes system operators, technicians and managers.



# Classroom Workshops

**RCAC's classroom trainings are instructor-led, interactive workshops designed to provide quality, in-person training and networking opportunities. Each session qualifies for six contact hours. Exceptions include the AB54 & AB240 class, which qualifies for two contact hours.**

*Unless otherwise noted, all classroom workshops will be on the following schedule: Registration/Check-in: 8 a.m. Workshop: 8:30 a.m.—3:30 p.m. Lunch is one hour (on your own). All classroom workshops are subject to change due to COVID-19 in an effort to ensure public and trainer safety, and comply with guidelines/restrictions. Masks are optional for our attendees, although our staff and trainers will continue to wear them for your safety.*

## Get the Lead Out: Lead and Copper Rule Revisions

**July 25, 2023 • Sacramento**

*RCAC • 3120 Freeboard Drive • West Sacramento, CA 95691*

After 30 years, the EPA has officially passed new regulations for the Lead and Copper Rule. These revisions are a major step toward keeping communities safe from lead. The new Lead and Copper Rule Revisions (LCRR) will require water systems and water system operators to rethink how they address lead and copper in their systems. These new requirements will require a thorough understanding of the LCRR's requirements so you can effectively engage in short- and long-term actions that will ensure compliance and safe water for all your customers. This training will guide drinking water operators through the new Lead and Copper site selection process, criteria and sampling plans so that water supplies maintain compliance for lead and copper under the Safe Drinking Water Act.

Participants will learn:

- The requirements of the new lead service line inventory
- Lead service line replacement requirements
- Monitoring childcare and school facilities
- New monitoring requirements
- Expanded communications programs
- More stringent responses to elevated lead levels

The recommended audience includes operators, managers and board members.

## Intro to Quickbooks Desktop

**July 26, 2023 • Sacramento**

*RCAC • 3120 Freeboard Drive • West Sacramento, CA 95691*

Accurate, meaningful and comprehensible financial information is critical to the decision making and continuity of every utility. Many small utilities use QuickBooks to track and report their financial activity. In this class you will learn how to maximize the use of this software, from setting up your chart of accounts to entering your budget and transactions and producing your financial statements.

Participants will learn:

- To set up their chart of accounts
- To set up their customers and vendors
- To enter customer billing data and produce bills
- To record transactions
- To build their audit trail
- To produce their financial statements

The recommended audience includes bookkeepers/accountants, governing bodies, managers, operators and anyone recording and/or interpreting transactions.



## Introduction to Surface Water Treatment Processes

**August 8, 2023 • Clearlake**

*Best Western El Grande Inn • 15135 Lakeshore Drive • Clearlake, CA 95422*

Clear Lake is the largest natural lake in California and it boasts some of the state's best fishing, water skiing and swimming in the state. Unfortunately, it is also one of the most challenging water sources in the state to treat for drinking water. Clear Lake is the drinking water source for dozens of communities in the county. Due to the shallow depth of the lake and other factors, the lake is prone to high levels of cyanobacteria, wide pH changes, manganese, turbidity and other issues. During the morning of this workshop event we will address the treatment techniques commonly used for these issues, which are common in the water treatment process. During the afternoon we will be touring a conventional water treatment plant about five minutes from the training venue to allow the participants to actually see these treatment processes.

Participants will learn:

- The importance of peroxidation to prepare raw water for the water treatment process
- The basics of the conventional water treatment process (coagulation, flocculation, sedimentation and filtration)
- The onsite generation of sodium hypochlorite (bleach)
- Granular activated carbon filtration for taste and odor control
- Chemical application for corrosion control in the distribution system

The recommended audience includes water system managers and water operators.

This training includes an offsite tour of a water treatment plant.



## Understanding Financial Statements

**August 9, 2023 • Clearlake**

*Best Western El Grande Inn • 15135 Lakeshore Drive • Clearlake, CA 95422*

The purpose of this training is to provide small water systems in California with tools necessary to plan for financial stability, specifically reading financial statements and interpreting that information. Many systems lack a basic understanding of using financial statements to make the informed financial decisions necessary to provide for the water system's sustainability. This training will be presented to provide decision makers with working knowledge and emphasize tools/resources available to understand information contained in financial statements about their water enterprise's revenue, expenses, profitability, debt load, and the ability to meet its short- and long-term financial obligations.

Participants will learn:

- To identify where on which financial statements to find specific financial information
- To understand what each financial statement reveals about the financial health of the system
- To calculate financial indicators, including liquidity ratios, efficiency ratios and solvency ratios, and understand/interpret these indicators

The recommended audience includes board members, general managers, financial managers and operators.

## CalTAP Fair

**September 14, 2023 • Redding**

*Red Lion Hotel Redding • 1830 Hilltop Drive • Redding, CA 96002*

See page 18 for more information.

## Water Operator Certification Prep

**September 26, 2023 • Temecula**

*Embassy Suites Temecula Valley • 29345 Rancho California Rd • Temecula, CA 92591*

The new California Operator Certification program allows operators to take their state exams within weeks of applying. This includes the tests for both distribution and treatment. In this workshop you will learn preparation methods for passing the state exams. Included are multiple resources, study materials, necessary guidance and a basic lesson utilizing the state math conversion sheet.

Participants will learn:

- Where to secure study materials
- Studying and preparation basics
- Introduction to practices and procedures of water distribution and water treatment
- Water math skills

The recommended audience includes drinking water operators, laborers and management.

## Budgeting for Small Water Systems

**September 27, 2023 • Temecula**

*Embassy Suites Temecula Valley • 29345 Rancho California Rd • Temecula, CA 92591*

In order to remain viable, all public water systems need to acquire and manage sufficient financial resources to achieve and maintain compliance with regulatory requirements. One primary tool to become and remain viable is developing and maintaining a comprehensive budget. This workshop will show board members, managers and operators how to develop a budget; how to identify revenues and expenses; methods to balance the budget; and how to review a budget comparison report on a regular basis.

Participants will learn:

- How to prepare a budget
- How to identify revenue and expenses
- How to identify fiscal policies to assist in balancing the budget
- How to review the budget comparison report on a regular basis

The recommended audience includes directors, board members and managers of mutual water companies.

## Dealing with Nitrates Contamination

**October 3, 2023 • Fresno**

*Wyndham Garden Fresno • 5090 E Clinton Way • Fresno, CA 93727*

Worldwide, nitrates are the most common chemical contaminant in groundwater aquifers. In 1980, nine drinking water wells in California had unsafe levels of nitrates. By 2007, this acute contamination had spread to more than 648 wells. Nitrates continue to impact the health of California residents and the problem is only getting worse. This workshop will help you make informed decisions about mitigating this contaminant.

Participants will learn:

- What nitrates are
- How nitrates get into drinking water
- The acute health effects of nitrate exposure
- How to achieve compliance with Safe Drinking Water Act requirements for nitrates

The recommended audience includes operators, managers and board members that have an interest in providing nitrate-safe water to their customers.

## Public Notification: Your Customers Have the Right to Know

**October 4, 2023 • Fresno**

*Wyndham Garden Fresno • 5090 E Clinton Way • Fresno, CA 93727*

Despite the efforts of water suppliers, water quality can sometimes change, and problems with drinking water can and do occur. When problems arise, consumers have a right to know what happened and what they need to do to protect themselves. The public notice requirement of the Safe Drinking Water Act requires water suppliers to provide this notice and sets strict requirements on the form, manner, content and frequency of public notices. EPA specifies three categories, or tiers, of public notification. The delivery timeframe depends on what tier a violation or situation falls into. Each tier has different required methods for delivery.

Participants will learn:

- The 10 required elements of a public notice
- How to determine which tier your situation falls under
- Federal and state requirements pertaining to public communication and notification
- Consumer Confidence Report basics

The recommended audience includes water system operators and managers.

## California's New Cross-Connection Control Handbook: An Overview

**October 10, 2023 • Sea Ranch**

*Del Mar Recreation Center • 40600 Leeward Rd • Sea Ranch, CA 95497*

The Water Board is in the final stages of the development and implementation of a Cross-Connection Control Policy Handbook (CCCPH). The primary objective of the CCCPH is to protect public health through the establishment of standards intended to ensure a public water system's (PWS) drinking water distribution system will not be subject to the backflow of liquids, gases or other substances into the distribution system. In addition, by providing basic educational information on backflow prevention, the State Water Resources Control Board (State Water Board) intends to build a foundation of awareness within the regulated community regarding the importance of backflow protection and cross-connection control, leading to the implementation of a robust cross-connection control program by PWS.

This in-person learning event will provide an overview of the proposed requirements of the CCCPH and the effect that it may have on a water system's backflow control program.

Participants will learn:

- The background of backflow protection and cross-connection control
- The standards for backflow protection and cross-connection control
- Hazard assessments and required protection
- Requirements for testers and CCC specialists
- How to develop a successful program

The recommended audience includes operators, managers and board members.



## Asset Management & Capital Improvement Planning

**October 11, 2023 • Sea Ranch**

*Del Mar Recreation Center • 40600 Leeward Rd • Sea Ranch, CA 95497*

For any water utility, even a very small water system, asset management (e.g. water tanks, pumps, computers, buildings, etc.) plays a significant role in the overall financial performance and sustainability of the water system. With proper planning, emergencies can be avoided and overall costs will be reduced. A capital improvement plan (CIP) prioritizes the replacement or installation of infrastructure assets. It includes the forecasting and budgeting of capital outlay and is an integral part of the budgeting and rate-setting process for even very small water systems.

Participants will learn:

- What a CIP is
- Why a water system needs a CIP
- Eight elements of a CIP
- Nine criteria for prioritizing
- Updating a CIP

The recommended audience includes board members, general managers, financial managers and operators.

## Tackling Groundwater Contamination Symposium

**November 1, 2023 • Salinas**

*Hampton Inn & Suites • 523 Work Street • Salinas, CA, 93901*

See page 19 for more information.

## Emergency Response Planning

**November 2, 2023 • Salinas**

*Hampton Inn & Suites • 523 Work Street • Salinas, CA, 93901*

Step right up folks! Welcome to California, practically an amusement park of disasters and emergencies! California has floods, fires and earthquakes. It also experiences “planned” electrical outages, a recent pandemic, drought and new regulations that impact our budgets. All of these issues can potentially cause harm or death to our customers, staff, or the environment, and can potentially affect our budgets. This workshop will assist public water system personnel in being as prepared as they can be for these disasters, emergencies and more. It all starts with discussion and learning from others. We will guide participants through the best process for developing a written emergency response plan and how to develop an emergency reserve to make sure that there are funds on hand immediately after any emergency.

Participants will learn:

- Options for the initial response to the most common emergencies for California public water systems
- Resources to help water system personnel be as prepared as they can be for disasters
- An emergency response plan template with discussion
- Group activities to learn from others' experiences
- First steps to take in order to acquire FEMA funding if the water system is impacted severely

The recommended audience includes water system board members, managers and water operators.



## AB54 and AB240: Ethics for Mutual Water Company Board Members

**November 14, 2023 • Claremont**

*Doubletree by Hilton Claremont • 555 W. Foothill Blvd • Claremont, CA 91711*

By law, all mutual water board members are required to have two hours of ethics training within six months of taking office and every six years following. This training is designed to provide system longevity and help ensure that board members meet their legal responsibilities. Required training topics include conflicts of interest, fiduciary responsibilities, Safe Drinking Water Act compliance, long-term management and capital improvement planning. We will also cover the AB240 requirements, which affect mutual water systems as of Jan. 1, 2014. This workshop allows mutual water systems to comply with this new regulation and helps prepare them to better govern their water company. This workshop meets the legal requirement for board members ethics training under AB54.

Participants will learn:

- Requirements of AB54 and AB240
- Financial conflicts of interest to avoid
- About strategic planning
- Financial responsibilities
- Capital improvement planning
- How to comply with the Safe Drinking Water Act

The recommended audience includes directors, board members and managers of mutual water companies.

## Dealing with 'Forever Chemicals': PFAS in Drinking Water

**November 15, 2023 • Claremont**

*Doubletree by Hilton Claremont • 555 W. Foothill Blvd • Claremont, CA 91711*

The issue of PFAS contamination is being highlighted throughout the country with many experiencing anxiety over possible water contamination. PFAS are a group of man-made chemicals which include Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS). Known as “forever chemicals,” PFAS compounds have been found widely in the environment, including thousands of groundwater sources throughout the U.S. PFAS compounds are currently the number one emerging threat to water systems. Continuing studies are identifying potential health risks associated with these chemicals. This session examines the origin, the concerns and provides information for small systems about protecting public health.

Participants will learn:

- Why these “forever” chemicals are not going away
- Where PFAS come from
- What the health effects of PFAS are
- PFAS regulations in drinking water
- PFAS treatment technologies for drinking water systems

The recommended audience includes board members, managers and operators.

## No Bad Bugs: Protecting Your System from Microbial Contaminants

**November 16, 2023 • Claremont**

*Doubletree by Hilton Claremont • 555 W. Foothill Blvd • Claremont, CA 91711*

Your water system can easily and effectively spread waterborne diseases such as cholera, typhoid and E. coli. The Center for Disease Control and Prevention documents more than 22 waterborne disease outbreaks annually in U.S. public water supplies. These outbreaks cause over 10,000 cases of illness. Protecting your water system from these microbial contaminants is a fundamental goal of every water system. In this workshop, we will trace the origins of a water system operators’ battle with bad bugs, from Dr. Snow removing the handle on the Broad Street Pump in London to stop the 1854 cholera epidemic, to modern sanitary surveys and disinfection methods. The goal of this workshop is to make the water system operator aware of the pathways of microbial contamination and to provide low-cost strategies to prevent contamination of their system.

Participants will learn:

- The five most common routes of microbial contamination of a water system
- How to conduct a simple but effective sanitary survey on your water system
- The importance of chlorine residual as a low-cost and rapid method of detecting microbial contamination
- How to use operational records to identify water quality problems

The recommended audience includes all water system operators, managers and board members.

## Cyber Security for Drinking Water Systems

**December 12, 2023 • Bakersfield**

*Four Points by Sheraton • 5101 California Ave • Bakersfield, California 93309*

Cyber-attacks against critical infrastructure facilities, including public water systems, are increasing. Past incidents have shown these attacks have the potential to disable or contaminate the delivery of drinking water to consumers and other essential facilities. While some public water systems have taken steps to improve cybersecurity, recent events show many public water systems (PWSs) have failed to adopt basic cybersecurity best practices.

In March 2023 the United State Environmental Protection Agency issued a regulation that requires when a PWS uses operational technology (OT), such as an industrial control system (ICS), as part of the equipment or operation of any required component of a sanitary survey, then the sanitary survey must include an evaluation of the adequacy of the cybersecurity of that OT for producing and distributing safe drinking water. These requirements apply to all water systems regardless of type (community, non-community, transient) that use electronic control technology in the operation of their system.

Participants will learn:

- The importance of a robust cybersecurity program for every water system
- Basic cybersecurity terms and concepts
- How to conduct a cybersecurity assessment of your water system
- How to detect and report a cybersecurity incident

The recommended audience includes operators, managers, and board members.

# California Senate Bill 552: A closer look at Drought Planning, Reporting, Responding, and Recovery

**December 13, 2023 • Bakersfield**

*Four Points by Sheraton • 5101 California Ave • Bakersfield, California 93309*

Senate Bill 552 mandates new actions be taken by state, county and small water suppliers. What do you need to know, and what actions do you need to take? There are new responsibilities to reduce the risk of inadequate water supply during a water shortage event. We will identify potential water shortage risks for small water suppliers and rural communities, and we will outline emerging requirements and resources along the road to improved drought resilience.

Participants will learn:

- New requirements in California's drought resilience, reporting, planning and response
- Online tools for exploring and identifying water shortage risks
- Links and resources for drought reporting requirements
- How to create and implement a water shortage contingency plan
- Current and upcoming deadlines for state compliance
- Communication and coordination guidance for water suppliers, customers and government
- Planning strategies and resources for water shortage vulnerability and disaster preparedness

The recommended audience includes operators, managers, board members and elected officials.



# Special Events

Join us for two special events

## CalTAP Fair: Building a Resilient Water Future

September 14, 2023 • Redding, CA

Red Lion Hotel Redding • 1830 Hilltop Drive • Redding, CA 96002

### Technical Track

#### Nitrate Treatment

Nitrates are the most common chemical contaminant in groundwater aquifers worldwide. In 1980, nine drinking water wells in California had unsafe levels of nitrates. By 2007, this acute contamination had spread to more than 648 wells. Nitrates continue to impact the health of California residents and the problem is only getting worse. This breakout session will help you make informed decisions about mitigating this contaminant.

Participants will learn:

- What nitrates are
- How nitrates get into drinking water
- The acute health effects of nitrate exposure
- How to achieve compliance with Safe Drinking Water Act requirements for nitrates
- An overview of the most used nitrate treatment technologies
- Practical considerations when choosing a nitrate treatment system

The recommended audience includes operators, managers and board members that have an interest in providing nitrate-safe water to their customers.

#### Groundwater Well Monitoring

How is your well performing? Do you know how close your well is to running dry in summer months? How do you monitor your groundwater well to be able to answer these questions and comply with the new Drought & Conservation Reporting?

Participants will learn:

- Importance of measuring production groundwater levels
- Tools and techniques for measuring static and pumping water level
- Resources to help you manage and operate your system during a drought

The recommended audience includes operators, management, REHS, or any water industry professional who wants a better understanding of the new Drought & Conservation Reporting brought on by SB552 - Drought Planning for Small Water Suppliers and Rural Communities.

### Managerial Track

#### Water Shortage Contingency Plan

It is the responsibility of public water systems to provide safe and aesthetically pleasing water to their customers. What would you do if you ran low or out of water? The short answer is, "it depends". It depends on the water system, the resources available and the proximity to other resources. This interactive workshop will be a series of exercises for water system purveyors to discuss possible options for public water systems to have a contingency plan for water shortages or water outages.

Participants will discuss:

- The possibility of developing new water sources
- The likelihood of an intertie with neighboring water systems
- The possibility for short term connection to non-potable water sources



- How to plan for water haulers and storage tank purchase or rental
- Large scale bottled water provisions

This presentation is designed for Board Members, decision makers, managers, and Operators

### Managing the New Lead & Copper Rule

EPA's new Lead and Copper Rule Revisions (LCRR) strengthen every aspect of the original LCR to better protect communities and children in elementary schools and childcare facilities from the impacts of lead exposure.

There is no safe level of lead exposure. In drinking water, the primary source of lead is from pipes, presenting a risk to the health of children and adults alike.

Under the new LCRR, water systems are working to meet new compliance levels. Participants will learn more about these new areas of focus, including:

- Improving lead sampling and corrosion control
- Expanding public education and customer outreach
- Starting lead testing in schools and childcare facilities
- Creating a comprehensive, public inventory of lead service lines
- Initiating more lead service line replacements

This workshop is recommended for operators, managers and board members.

## Combined Track

### Capital Improvement Planning

Capital Improvement Planning is essential for the management of water systems, regardless of their size. Operators' role in asset management significantly influences the financial performance and sustainability of the systems. Collaborating with boards and managers, proper planning can prevent emergencies and reduce costs. A Capital Improvement Plan (CIP) prioritizes infrastructure asset replacement or installation, forecasting and budgeting for capital outlay. It is a crucial part of budgeting, rate-setting, and project funding.

Participants will learn:

- What a CIP is and why a water system needs one
- Eight Key Elements in Capital Improvement Planning
- Setting Project Priority

The recommended audience includes board members, managers, operators, and financial managers.

### Funding Your CIP

One of the most challenging parts of managing a water system is funding your infrastructure projects, and if you really want to make everyone happy it would be in the form of a grant. From the description of your project to the type of water system you manage, number of vacation homes you serve, to what your service fees are, are all considered when it comes to funding a project. I have 30 years of experience working with the State and Federal funding agencies and want to share it all with you. As funders look at long-term planning, a system with a developed asset management plan rises to the top of many lists. An important part of the process is to identify

funding opportunities. This workshop will help you to understand where to look for the best funding opportunities, tools to help you determine your system and projects eligibility for funding, and what resources are available to assist your system with the application process.

Participants will learn how to:

- Prepare your system prior to funding
- Obtain the best funding opportunities
- Use resources available to help you determine funding eligibility
- Look through the lens of the funding agencies
- Find help getting through the process

The recommended audience includes operators, managers, and board members.

## Tackling Groundwater Contamination Symposium

**November 1, 2023 • Salinas**

*Hampton Inn & Suites • 523 Work Street • Salinas, CA, 93901*

A significant number of California communities rely on contaminated groundwater sources for their drinking water supply. To provide safe drinking water to their communities a variety of treatment techniques must be employed depending on the specific contaminant. Some contaminants like arsenic are naturally occurring, others like nitrates are caused by industry and development. Regardless, they need to be dealt with to protect public health. In this all-day learning event, we will provide attendees with a basic knowledge of common groundwater contaminants, their options for treatment, and more affordable alternatives to treatment. Aside from a learning opportunity, this is also a great chance to meet other systems in your area who may be facing similar issues.

Participants will learn:

- The main groundwater contaminants such as nitrates, arsenic, iron and manganese, etc.
- The basic treatment techniques such as filtration, membrane process, ion exchange, etc.
- Alternatives to treatment by diluting contaminated sources, source water protection, and regional consolidation

The recommended audience includes operators, managers, board members, private well owners, and anyone interested in safe, affordable drinking water.

## Trainer Biographies



**CYRIL BARMORE**, Rural Development Specialist – Environmental, delivers individual, classroom, and online instruction to promote water infrastructure resilience, sustainability, and quality in California’s rural communities. Cyril provides both on-site and online assessment, guidance, and assistance to operators, managers, accounting personnel, and board members of small drinking water and wastewater systems. He holds the following California licenses: T3, D3, Wastewater 2, and AWWA Backflow Tester. Cyril dedicates technical strategies, management best practices, and financial resources to help solve problems and bring positive change to water and wastewater infrastructure in rural California.

**KIM BENNETT**, Rural Development Specialist II – Environmental, provides financial and managerial trainings and technical assistance to water and wastewater systems in rural communities in California. Kim conducts median household income (MHI) and low-to-moderate income surveys, and her responsibilities include planning and implementing income surveys under RCAC’s federal and state contracts throughout RCAC’s region. Kim also represents RCAC at conferences, CFCC and CalTAP Fairs and other outreach events. She is a member of the American Water Works Association (AWWA).

**SARA EVERHART**, Rural Development Specialist – Environmental, provides training and technical assistance to water and wastewater systems in Colorado and Nevada. Sara has a master’s degree in environmental engineering with a focus in water and wastewater treatment. Sara has experience in analytical chemistry working with organic contaminants found in wastewater. Sara also previously taught middle and high school science for six years before returning to complete her master’s degree.

**MARY FLEMING**, Rural Development Specialist – Environmental, provides financial management and QuickBooks™ technical assistance and training to small utilities and nonprofit housing organizations’ staff, management, and board of directors. She has more than 30 years of experience in financial management. Mary develops financial management training curricula and teaches online and in classroom workshops for RCAC. She performs financial statements and rate analyses for utilities in California and works with other RCAC staff to provide the utilities with written recommendations for sustainability. Mary is a certified QuickBooks™ Pro Advisor and holds a bachelor’s degree in accounting from California State University, Stanislaus.

**JOHN HAMNER**, Rural Development Specialist – Environmental, has more than 27 years of experience teaching classroom workshops, in person and online, on water and wastewater utility technical, managerial, and financial topics. John holds a T3 Water Treatment Operator Certification, a D3 Water Distribution Operator Certification, a Grade 3 Wastewater Certification and is a Water Conservation Practitioner I (CA/NV AWWA). He has managed and operated water and wastewater systems in Mendocino County and Lake County, California. He teaches water and wastewater classes for Woodland Community College at its Clearlake campus and is a full-time trainer for RCAC.

**BRIDGET HARRIS**, Regional Field Manager – Environmental, provides financial and managerial trainings to boards and councils throughout the rural west. She has nearly 20 years of experience leading management and financial aspects of nonprofit organizations. She develops and delivers curricula for in-person and online trainings, as well as system specific trainings for staff and boards. Bridget conducts financial analyses and rate studies throughout the west and assists utilities in asset management planning. She holds a bachelor's degree in accounting and an MBA in finance. Additionally, Bridget holds treatment and distribution Level 1 certifications in Nevada.

**KATRINA HIOTT**, Regional Field Manager – Environmental, provides training and technical assistance to mutual water companies, nonprofits, and local and Tribal governments to improve or develop water and wastewater systems and programs for rural communities. Before joining RCAC, Katrina worked as an environmental health specialist in water protection programs in local government, where she assisted the public in complying with county well ordinances and state water codes. Her experience includes creating and conducting environmental education programs, assisting small public water systems with state and federal compliance, performing water system and private well evaluations, well construction, destruction and modification permitting, and inspection of new construction of onsite wastewater systems.

**THOMAS LYNCH**, Rural Development Specialist – Environmental, provides training and technical assistance to water and wastewater systems. Tomas is T1 certified, has extensive lab experience, and has taught in classrooms across the globe. Tomas trains on a variety of topics from regulation basics to operations. He assists utilities with their finances and outreach. He enjoys helping others and is happy to help where ever he is needed. As the newest member of the team, Tomas looks forward to seeing you in his trainings.

**JIM MCVEIGH**, Rural Development Specialist, has more than 45 years of experience in the operation and management of water utilities. Jim holds certifications as a Grade 5 California Water Treatment Operator, Grade 4 California Water Distribution Operator, Grade 4 Hawaii Water Treatment Operator, and Grade 4 Hawaii Water Distribution Operator and is a Certified Environmental Trainer. He retired as the senior water operations supervisor running the City of San Diego's Otay Water Treatment Plant. Jim holds a bachelor's degree in chemistry and biology, a master's degree in organizational management and has extensive training in drinking water quality issues.

**SAMANTHA RYAN**, Rural Development Specialist – Environmental, provides training and assistance to water and wastewater systems. Samantha holds Grade 3 Wastewater Treatment, Grade 2 Water Treatment, and Grade 2 Water Distribution operator certifications. During her five years as a water and wastewater operator, Samantha operated a pond and marsh wastewater system, a grade 3 water distribution system, and tested and repaired backflow prevention devices. She was a program and regulatory analyst for a water district for three years where she helped to ensure compliance with many federal and state regulations, including those established to satisfy the California Safe Drinking Water Act.

**SAMANTHA VAN BREUKELN**, Small Utility Project Manager – Environmental, conducts median household income (MHI) surveys according to California law and regulations. Samantha also performs financial rate and financial capacity analyses for water utilities in California. She holds a bachelor's degree in economics, specializing in quantitative analysis from California State University at Fullerton.

**DESSA WELLS**, Assistant Field Manager – Environmental, provides financial management and QuickBooks™ assistance to water and wastewater systems. Dessa is a QuickBooks certified Pro Advisor. She also assists systems with rate studies, funding applications, financial reporting for funding, water system management plans, and conducts median household surveys. She has developed and delivers curricula for in person and on-line trainings.

**JEAN THOMPSON**, Assistant Field Manager – Environmental, teaches classroom workshops and provides on-site technical assistance to water and wastewater utilities on technical, managerial and financial issues. She has more than 29 years of water and wastewater experience throughout the western states. She has been Chair of the Small Systems InterAgency Committee for seven years. Jean previously managed the Delhi County Water District, a water and wastewater system in Merced County. She served as president on the California Rural Water Association board, and National Director representing California on the National Rural Water Association Board. She was a manager for the California Rural Water Association for 10 years, serving on many CDPH technical advisory committees, developing the TMF criteria and Water Works standards for California.



# Training Information

## Contact Hours & Certificates:

Each classroom workshop qualifies for six (6) drinking water contact hours. Exceptions include the AB54 & 240 class, which qualifies for two (2) drinking water contact hours.

Each online, one-part workshop qualifies for two (2) drinking water contact hours. Each online, Deep Dive workshop qualifies for four (4) drinking water contact hours. Each online series, qualifies for two (2) drinking water contact hours per session.

Certificates for all online sessions are available for self-printing within 48 hours through your RCAC website registration/profile account. Certificates for all classroom sessions are available for self-printing within 10 business days through your RCAC website registration/portal account. RCAC and the Water Board require signatures to verify attendance for in-person trainings and we must wait to receive the original classroom sign-in sheets from the RCAC trainer in order to verify attendance.

**Certificates will no longer be provided at the conclusion of each classroom training.** *If you would like to request a physical copy of a certificate, you may request this at the time of signing in to the event and a copy will be mailed to you within 20 business days.*

## COVID-19 Response

We are monitoring the situation and will adhere to state and county COVID-19 guidelines/restrictions. All classroom workshops are subject to change in an effort to ensure public and trainer safety, and to comply with guidelines/restrictions.

## Online Workshops

Online workshops will be hosted on the GoToTraining platform. The recommended web browsers are Edge and Chrome. Use of other browsers may lead to functionality issues. If using an IOS device, the GTT application should be downloaded and used.

All online workshop registrations require a valid e-mail address. See page 2 for more detailed information.

In order to receive contact hours for online workshops, each person must be registered and complete an online survey at the end of the training.

## Are you attending as a group, but not watching from your own computer?

Attendees do not need to participate from their own computer/device for the online trainings, but will need to complete an evaluation to receive credit. **Your group leader will need to inform RCAC (registration@rcac.org) of attendees who will be viewing sessions as a group prior to session start. Sign-in sheets are NO LONGER accepted to validate attendance for contact hours for online workshops.**

Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have an attendee limit for online workshops. Cancellations can be made by email at registration@rcac.org or by phone at (916) 447-9832 x 1429. Please do not cancel through GoToTraining.

**IMPORTANT:** Failure to attend three workshops for which you reserved a seat (and did not cancel) in any six-month period will disqualify you from attending workshops in the following six-month period. **Please cancel a minimum of 48 hours in advance to allow others to attend the training.**

**For the fastest registration and most current information, please visit:**

[https://stage.events.rcac.org/rcac/Free\\_CA\\_Drinking\\_Water\\_Workshops.asp](https://stage.events.rcac.org/rcac/Free_CA_Drinking_Water_Workshops.asp)

**Registration help:** <http://www.rcac.org/trainings/registration-help/>

**Training department phone:** (916) 447-9832 ext. 1429 • **Email:** registration@rcac.org

## How do I find my certificates online?

You can now access your contact hour certificates online. After logging into your RCAC registration account, click "Portal" to be taken to your Course/Event history. From there you can click "View Certificate".

If you are unable to access your records through your account for any reason, please phone our staff at (916) 447-9832 ext. 1429 or email [registration@rcac.org](mailto:registration@rcac.org).

The screenshot shows the RCAC website interface. At the top, there is a navigation bar with the RCAC logo, the text "Training and Events", and a user profile section for "Tiffany" with links for "Profile", "Portal" (highlighted with a red box), "Cart", and "Logout". Below this is a blue header with links for "CFCC FUNDING FAIR", "TRAINING SEARCH", "TRAININGS BY DATE", and "HOUSING COUNSELING TRAININGS". The main content area is titled "My Registration Portal" and includes a welcome message for "Tiffany Shea" with a link to "View Profile". Below this, it states "The events and courses you have registered for are listed below." and shows a table for "MY COURSE HISTORY". The table has columns for "Course Session", "Date", and "Certificate". One row is visible for "CalTAP Fair Part 1: Regulations Update" on "9/17/2020", with a "View Certificate" link highlighted by a red box. Below the course history table is another section titled "MY CURRENT EVENT REGISTRATIONS" with a similar table structure, showing "Utility Management (New Mexico) 060823-9" on "6/8/2023" with a "Pending or No Show" status.

MY COURSE HISTORY		
Course Session	Date	Certificate
CalTAP Fair Part 1: Regulations Update	9/17/2020	<a href="#">View Certificate</a>

MY CURRENT EVENT REGISTRATIONS		
Event Name	Date	Certificate
Utility Management (New Mexico) 060823-9	6/8/2023	Pending or No Show



# July–December 2023 Registration Form

**There is NO FEE to attend these workshops.** Please register in advance, as space may be limited. **Priority will be given to smaller water systems.** Please complete one form for each person who will attend. You can also register online at [https://stage.events.rcac.org/rcac/Free\\_CA\\_Drinking\\_Water\\_Workshops.asp](https://stage.events.rcac.org/rcac/Free_CA_Drinking_Water_Workshops.asp).

Name: \_\_\_\_\_  
Email: \_\_\_\_\_ (All notifications regarding workshop changes are made via email)  
Company or Water System: \_\_\_\_\_  
Preferred phone: ☐ Work ☐ Home or ☐ Mobile: ( \_\_\_\_\_ ) \_\_\_\_\_  
Cell Phone (for text message notifications) \_\_\_\_\_ Cell phone carrier: \_\_\_\_\_  
Preferred mailing address: ☐ Organization or ☐ Home Mailing address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Type of Water System: ☐ Community ☐ Non-community ☐ Non-community/Non-transient ☐ N/A  
Water System ID#: \_\_\_\_\_ Number of connections: \_\_\_\_\_ Serves less than 10,000 population: ☐ Yes ☐ No  
Operator Certification #(s): ☐ Distribution ☐ Treatment ☐ Wastewater \_\_\_\_\_

**SPECIAL NEEDS:** If you have special needs addressed by the Americans with Disabilities Act, please notify RCAC at (916) 447-9832 ext. 1003 or [mayres@rcac.org](mailto:mayres@rcac.org) at least three weeks prior to each workshop you are attending, so that we may make accommodations for you.

**Please register me for the following workshop(s):**

## Online Workshops (one-part)

07/11 ☐ 10 a.m. & 2 p.m. .... Water Supply & Sources  
07/12 ☐ 10 a.m. & 2 p.m. .... Water System Basic Operations  
07/18 ☐ 10 a.m. & 2 p.m. .... Chromium in Drinking Water: Return of the Chromium-6 MCL  
07/19 ☐ 10 a.m. & 2 p.m. .... Groundwater Well Operation & Maintenance  
08/01 ☐ 10 a.m. & 2 p.m. .... Board Roles & Responsibilities  
08/02 ☐ 10 a.m. & 2 p.m. .... Preparing for a Sanitary Survey  
08/15 ☐ 10 a.m. & 2 p.m. .... Internal Controls  
08/16 ☐ 10 a.m. & 2 p.m. .... Groundwater Treatment Techniques  
08/29 ☐ 10 a.m. & 2 p.m. .... Storage & Distribution  
08/30 ☐ 10 a.m. & 2 p.m. .... The Safe Drinking Water Act  
09/06 ☐ 10 a.m. & 2 p.m. .... Before you Sign on the Dotted Line: Pre-Design ...  
09/07 ☐ 10 a.m. & 2 p.m. .... Mapping Small Water Systems with Free Google Earth ...  
09/19 ☐ 10 a.m. & 2 p.m. .... Go Small and Go Home: Point-of-Use and Point-of-Entry ...  
09/20 ☐ 10 a.m. & 2 p.m. .... Capacity Building Through Consolidation  
09/21 ☐ 6 p.m. .... AB54 & AB240: Ethics for Mutual Water Company Board Members  
10/17 ☐ 10 a.m. & 2 p.m. .... Pathogens in Drinking Water  
10/18 ☐ 10 a.m. .... Capital Improvement Planning  
10/24 ☐ 10 a.m. & 2 p.m. .... Get the Lead Out: Lead & Copper Rule Revisions  
10/25 ☐ 10 a.m. & 2 p.m. .... Budgeting for Small Water Systems  
10/26 ☐ 10 a.m. & 2 p.m. .... Cyber Security for Drinking Water Systems  
10/31 ☐ 10 a.m. .... Drought Planning, Response and Recovery: A Closer Look at SB552  
11/07 ☐ 10 a.m. & 2 p.m. .... Revised Total Coliform Rule  
11/29 ☐ 10 a.m. & 2 p.m. .... Disinfection By-Products Rule  
11/30 ☐ 10 a.m. & 2 p.m. .... Water System Leak Repair  
12/05 ☐ 10 a.m. .... Beat the Cyanobacterial Blues: What You Need to Know ...  
02/05 ☐ 2 p.m. .... Surface Water Treatment Rule  
12/06 ☐ 10 a.m. .... Developing Operations Plans  
12/14 ☐ 10 a.m. .... Navigating State Funding  
12/19 ☐ 10 a.m. & 2 p.m. .... Enhancing the Skills & Knowledge of Utility Clerks  
12/20 ☐ 10 a.m. .... Rate Setting

## Online Deep Dive Workshops

07/13 ☐ 8:30 a.m. .... Understanding Financial Statements  
11/8 ☐ 8:30 a.m. .... Pumps & Motors Troubleshooting

## Classroom Workshops

07/25 ☐ Get the Lead Out: Lead and Copper Rule Revisions ..... (Sacramento)  
07/26 ☐ Intro to Quickbooks Desktop ..... (Sacramento)  
08/08 ☐ Introduction to Surface Water Treatment Processes ..... (Clearlake)  
08/09 ☐ Understanding Financial Statements ..... (Clearlake)  
09/26 ☐ Water Operator Certification Prep ..... (Temecula)  
09/27 ☐ Budgeting for Small Water Systems ..... (Temecula)  
10/03 ☐ Dealing with Nitrates Contamination ..... (Fresno)  
10/04 ☐ Public Notification: Your Customers Have the Right to Know ..... (Fresno)  
10/10 ☐ California's New Cross-Connection Control Handbook ..... (Sea Ranch)  
10/11 ☐ Asset Management & Capital Improvement Planning ..... (Sea Ranch)  
11/02 ☐ Emergency Response Planning ..... (Salinas)  
11/14 ☐ AB54 and AB240 ..... (Claremont)  
11/15 ☐ Dealing with 'Forever Chemicals' ..... (Claremont)  
11/16 ☐ No Bad Bugs ..... (Claremont)  
12/12 ☐ Cyber Security for Drinking Water Systems ..... (Bakersfield)  
12/13 ☐ California Senate Bill 552 ..... (Bakersfield)

## Special Events


09/14 ☐ CalTAP Fair ..... (Redding)  
11/01 ☐ Tackling Groundwater Contamination Symposium ..... (Salinas)

**Registration questions or problems? Contact the Training Department:**

**Email:** [registration@rcac.org](mailto:registration@rcac.org) • **Phone:** (916) 447-9832 ext. 1429



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