



FREE California Drinking Water Workshops

Classroom & Online: July– December 2019

Presented by: Rural Community Assistance Corporation (RCAC)

Funded by: California State Water Resources Control Board



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.

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



© 2019. This document was prepared using funds under Agreement 18-019-550 with the California State Water Resources Control Board; the total Agreement is for \$3,971,380 and will produce multiple documents and training events over the span of the multi-year contract.

Contact Hours & Certificates:

Each classroom workshop, Financial Symposium and CalTAP Fair qualify for six (6) drinking water contact hours. Exceptions include the AB54 class, which qualifies for two (2) drinking water contact hours.

Each online workshop qualifies for two (2) drinking water contact hours.

Certificates for all online sessions are available for self-printing within 48 hours through your RCAC website registration/profile account. Self-printing classroom certificates are also available for most workshops, but might take longer to access

through your online 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 be provided at the conclusion of each on-site training to those pre-registered at least two weeks in advance, except for the CalTAP fair.

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.

July–December 2019 Workshop Topics and Locations

ONLINE WORKSHOPS

Regulations Basics:

- Disinfection By-Products Rule II
- Lead & Copper
- Public Notification
- Water Quality Sampling

Board Basics:

- Roles and Responsibilities
- Basic Operations
- Safe Drinking Water Act
- Financial Management...
- Budgeting

Ethics Topics:

- AB1234: Ethics for Public Elected Officials
- AB54 & AB240: Ethics for Mutual Water Company Board Members

Operations Basics:

- Water Supply & Sources
- Storage & Distribution
- Operator Expected Range of Knowledge (2-part series)
- Water Treatment Techniques
- Operator Math
- Water Well O & M ...

Other Topics:

- Groundwater Wells with Iron
- Cross Connection Controls
- Partner Up: Regionalization
- Arsenic Remediation
- Seasonal System Operation
- Dealing with Nitrate Contamination
- Google Earth Mapping Small Water Systems
- Hydrant Installation
- Sanitary Survey Prep

CLASSROOM WORKSHOPS

AB54 = AB54 & AB240: Ethics...

ARS = Arsenic Symposium

BEC = Basic Electric Concepts

BCIP = Budgeting & CIP

BRS = Budgeting & Rate Setting...

BUD = Budgeting

CCC = Cross Connection Controls

CIP = Capital Improvement Plans

CIP/R = Capital Improvements Plans/Rates

CTF = CalTAP Fair

EE = Energy Efficiency

FM = Basic Financial Management

FPP = Financial Policies & Procedures

GWW = Groundwater Wells

ME = Math Essentials

MSW = Mapping Small Water Systems

NBB = No Bad Bugs: Protecting...

O&M = O&M: Maintaining Water Quality

PME = Pumps & Motors Efficiency

PN = Public Notification

R/218 = Rate Setting & Prop. 218

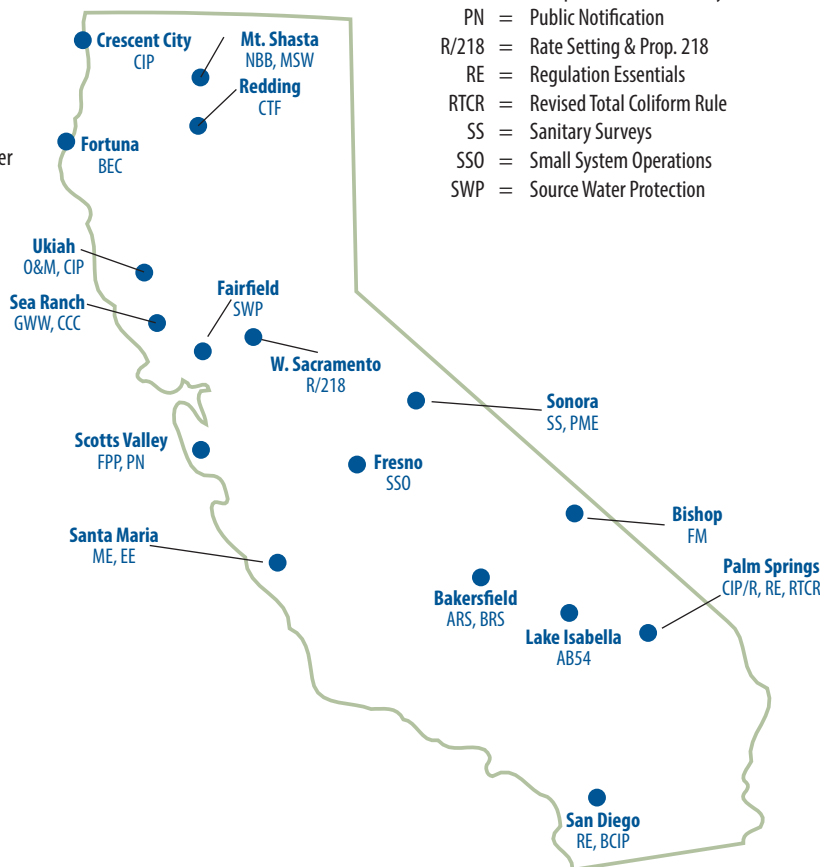
RE = Regulation Essentials

RTCR = Revised Total Coliform Rule

SS = Sanitary Surveys

SSO = Small System Operations

SWP = Source Water Protection



Special Event: CalTAP Fair



Join us at the CalTAP Fair for Water Systems!

**September 19, 2019 • Redding, CA
8:30 a.m. to 4:00 p.m.**

Red Lion Redding • 1830 Hilltop Dr. • 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.

(Lunch is one hour and on your own)

CalTAP Fair: Redding, CA • September 19, 2019 PROGRAM AT A GLANCE

8 a.m.	Registration opens		
8:30 a.m.	Welcome & Introductions CalTAP Presentations		
10:15 a.m.	Break		
10:30 a.m.	Regulations Update		
Noon	Lunch (on your own)		
1 p.m.	Water Sampling	Groundwater Protection	Customer Buy-in for Rates
2:20 p.m.	Break		
2:40 p.m.	Flow, Pressure & Dosing Math	RTCR	Funding Options
4 p.m.	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.

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.

Audio recommendations

We recommend using a headset or speakers with your computer. You do not need a microphone for this class. You can 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 to provide assistance if you are having problems connecting to a session.

If you continue to have problems connecting, contact GoTo Training Tech Support, toll free, at (855) 352-9002, and choose option 1.

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. Sign-in sheets are NO LONGER accepted to validate attendance for contact hours.**

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

Each attendee does not need a separate connection to the online training, but EVERY attendee is required to have an email address and to complete an evaluation to receive credit. Your group leader will be sent an evaluation link (within two hours after the training) to share and to be completed individually to receive credit.

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.

Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have a 60 attendee limit for online workshops. Cancellation can be made by email at registration@rcac.org or by phone at (916) 447-9832 x 1429.

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

PLEASE CANCEL A MINIMUM OF 24 HOURS IN ADVANCE TO ALLOW OTHERS TO ATTEND THE TRAINING.

REGULATIONS BASICS

Disinfection By-Products Rule II

July 23, 2019 @ 10 a.m.

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

Target audience is operators and managers of water systems that chlorinate their water

Lead & Copper

September 4, 2019 @ 10 a.m.

This session chronicles the events leading up to the Flint water crisis and its aftermath. With the nationwide news coverage, the water industry and regulation have taken a hit on its reputation. It is time to take the time to review the event and consequential refocus on the subject of Lead and Copper in our drinking water, plus the monitoring of this contaminant. Special emphasis will be given to the political and economic climate of the region, operational missteps and regulatory failures.

After the Flint, Michigan story there has been a new emphasis on the monitoring of Lead and Copper in our drinking water. While the federal rule has not gone through a major revision, California has implemented several new measures intended to control lead in the drinking water. Are you up to date with these?

Please join us and learn or reinforce your understanding of these new standards and requirements:

- Flint, Michigan: Who, what, how and when did this crisis take place?
- Discuss what is happening in your neighborhood; can this happen to you?
- New: Lead And Copper Rule Minor Revisions (LCRMR); what is the new focus?
- Is this nothing but more sampling? (The answer may surprise you)
- Review what a valid sample is
- Find out if your system needs to incorporate corrosion controls
- What do you tell the public?

Public Notification

September 24, 2019 @ 10 a.m.

Unfortunately, water quality can sometimes change. Despite the efforts of water suppliers, 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 requirements of the Safe Drinking Water Act require 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
- Resources and tools for complying with Federal and State requirements
- Why effective customer communication is vital for a small water system
- The recommended audience is water system operators and managers.



Water Quality Sampling

November 6, 2019 @ 10 a.m.

You are getting customer complaints about musty tasting water and don't remember if you completed all of the state's monitoring and reporting requirements for the past three months. So, how do you know if the water you are delivering is safe to drink? What do you tell your customers?

Participants will learn:

- Key existing regulations
- Reporting requirements
- Future monitoring regulations under the California Safe Drinking Water Act
- The benefits of a timely water quality monitoring program

Recommended audience includes operators, managers, and anyone responsible for ensuring compliance with sampling regulations.

BOARD BASICS

Roles & Responsibilities

July 24, 2019 @ 10 a.m.

There are many responsibilities attached to serving on a water authority 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.

Participants will learn:

- Why a public drinking water supply system must operate as a viable business
- The concept of capacity development Technical, Managerial and Financial (TMF) elements
- 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

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.

Recommended audience includes system managers, new or existing board members, and those considering serving on a water system board.

Basic Operations

August 20, 2019 @ 10 a.m.

Many small public water systems have a board of directors, and most of these directors are volunteers who are unfamiliar with drinking water system components. This workshop will familiarize board members and new managers with the basic workings of a public water system.

Participants will learn and understand:

- Drinking water regulations
- Capacity development
- Water sources
- Water treatment facilities and water distribution systems
- Financial responsibilities



Safe Drinking Water Act

September 26, 2019 @ 10 a.m.

Throughout the country, small water system staff adhere to regulations to provide safe drinking water for their customers. The drinking water system staff follow direction 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 and understand:

- What the Safe Drinking Water Act (SDWA) is
- How the SDWA was developed
- How the SDWA is updated
- How to adhere to the SDWA
- Why State and County health departments enforce these regulations

Financial Management for Small Water Systems

October 8, 2019 @ 10 a.m.

Do you want to improve your water system's financial health? As a member of the board you have very important financial responsibilities, including establishing the policy framework governing your utility's finances, planning for the system's financial future, preparation and adoption of budgets, monitoring and oversight of financial performance, and ensuring accountability and integrity of the financial system. The goal of good financial management is to insure that your utility is operated as a financially sustainable enterprise while providing safe and reliable water, both in the short- and long-term, to your utility's customers.

Participants will learn and understand:

- Where to acquire financial tools, guides and templates to improve your financial health including rate setting, budgeting, asset management and customer policies
- Basic financial terms

- How to read and interpret common financial statements in order to make more informed decisions
- How to use financial statements to keep your system financially viable
- Elements of internal controls
- Identifying methods to balance the budget

This session is ideal for a board member of a drinking water utility who needs to understand the basic financial aspects of a utility's operations.

Budgeting for Board, Operators & Managers

November 7, 2019 @ 10 a.m.

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, identify revenues and expenses, methods to balance the budget, and how to review a budget comparison report on a regular basis.

Participants will learn and understand:

- How to prepare a budget
- How to identify revenue and expenses
- Identify fiscal policies for assisting in balancing the budget
- How to review the budget comparison report on a regular basis
- What types of corrective action can be implemented when you have unexpected expenses or falling revenues

ETHICS TOPICS

AB1234: Ethics for Public Elected Officials

October 15, 2019 @ 10 a.m.

Small water systems throughout the country often have boards consisting entirely of volunteers. In California, all new and existing board members are required to attend an ethics training once every two years, and within six months of taking office. This workshop will satisfy the legal requirements of AB1234 for elected officials of public entities. We will also cover "Brown Act" and your fiduciary responsibilities as elected officials. Good policies: Do you have them and have you reviewed them lately?

Participants will learn and understand:

- AB1234 ethics requirements for board members
- Understanding open meeting laws
- Conflict of interest
- What ethical behavior is

AB54 & AB240: Ethics for Mutual Water Company Board Members

December 10, 2019 @ 10 a.m.

By law, all mutual water board members are required to have two hours of ethics training every six years, and within six months of taking office. This training is designed to provide system longevity and helps assure that board members meet their legal responsibilities. Required topics of training 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 January 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 and understand:

- All requirements of AB54 and AB240
- Financial conflicts of interest to avoid
- Strategic planning
- Financial responsibilities
- Capital Improvement Planning
- How to comply with the Safe Drinking Water Act

Recommended audience includes directors, board members and managers of Mutual Water Companies

OPERATIONS BASICS

Water Supply & Sources

July 30, 2019 @ 10 a.m.

What does Under the Direct Influence mean? What is an unconfined aquifer? Why does surface water require different treatment than groundwater? Come learn the answers to these questions and more, as we explore small system water supply and sources. Learn how your water system's supply and source impact many of your daily activities as an operator.

This workshop includes information on:

- California's water supply
- Types of water sources commonly seen in small systems
- Characteristics of major water source types and treatment impacts
- Source water protection planning

Recommended audience includes system managers, new or existing water operators, and those considering employment in a public water system.

Storage & Distribution

August 21, 2019 @ 10 a.m.

This module presents the wide aspects and 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 its 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 piping and valves, and storage tanks in the system. Through purposeful flushing procedures and adequate planning, system downtime can be minimized and water quality can be improved.

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 of and how to reduce contamination
- Inspection and record-keeping procedures that improve water quality

This workshop will give participants the information and resources they need to understand proper operation and maintenance of their storage and distribution systems.

Recommended audience includes system operators, new board members and those considering becoming certified operators of a water system.

Operator Expected Range of Knowledge: Part 1

September 10, 2019 @ 10 a.m.

Operator Expected Range of Knowledge: Part 2

September 10, 2019 @ 2 p.m.

To be effective in their job of providing safe drinking water to their customers, certified water system operators need to possess a wide range of knowledge on many different subjects. This two part online session will test the participant's understanding of a wide range of drinking water topics. The instructors will provide a detailed explanation of many of these topics.

Part 1 Topics (10 a.m.):

- System Information / Components
- Monitor, Evaluate and Adjust Disinfection
- Laboratory Analysis
- Install Equipment

Part 2 Topics (2 p.m.):

- Operate Equipment
- Perform Maintenance
- Safety, Security and Administrative Procedures

Note: You may attend either session or both. Each session qualifies for 2 contact hours.

Water Treatment Techniques

September 25, 2019 @ 10 a.m.

There are multiple techniques used by public water systems to provide safe, aesthetically pleasing water to their customers. These techniques have been established by state law, federal law and the industry. This workshop will cover these techniques as well as provide resources for the water treatment operator.

Participants attending this workshop will learn about:

- Water quality parameters
- Water sources
- Water treatment techniques
- Water treatment regulations

Operator Math

October 22, 2019 @ 10 a.m.

One of many skills needed by water distribution operators includes the ability to perform water math problems. This includes volume, pressure, chlorine dosage and pipe velocity. This workshop will help the distribution operator master these formulas while utilizing the conversion sheet that is provided by the state for water distribution exams.

Participants attending this workshop will learn:

- Volumes
- Pressure
- Chlorine dosage
- Pipe velocity

Recommended audience includes water system operators, maintenance staff, managers and anyone who needs to use water works math routinely in their daily functions at a water treatment facility.

Water Well Operation & Maintenance: Monitoring What We Cannot See

October 23, 2019 @ 10 a.m.

How is your well performing? How do you know what is going on deep in the ground? What goes into the process of choosing a well site? Well equipment must be maintained in order 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.

This workshop will look into the many challenges regarding well maintenance:

- Well site selection process
- Well inspection
- Well maintenance
- Hydrology: groundwater qualities
- Drawdown and recovery tracking
- Well sounders: Which one is right for me?

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.

OTHER TOPICS

Groundwater Wells with Iron

July 31, 2019 @ 10 a.m.

One of the most common minerals found in groundwater wells is iron. This mineral can cause a multitude of problems including colored water, taste and odor issues, as well as potential unwanted bacteria. This workshop will cover the problems associated with iron in drinking water sources, as well as troubleshooting the best removal techniques. Mitigation for iron issues includes flushing programs, chemical oxidation with chlorine or potassium permanganate, oxidation/sedimentation, oxidation/filtration, ion exchange filtration and sequestration.

Participants attending this workshop will learn:

- Iron in groundwater well basics
- Water distribution flushing techniques
- Oxidation, sedimentation and filtration
- Ion exchange treatment
- Sequestration

Recommended audience includes water system operators, maintenance staff and managers.



Cross Connection Controls

September 5, 2019 @ 10 a.m.

Do you have an active cross connection control program? If not, it is time to get in the game. Not only are you required to have an approved program, but cross connection controls provide yet another barrier against water contamination. This workshop will give you the information and resources on how to develop a program that fits your small water system.

You will learn:

- How to identify potential cross connections
- What backflow prevention devices to use
- State requirements regarding cross connection control
- How to develop a successful program

Recommended audience includes operators, managers and board members.

Partner Up: Achieve Success by Working with Others

October 9, 2019 @ 10 a.m.

Small water systems must meet the same regulations as large systems without the economies of scale that large systems enjoy. What's a system with 1,000 connections or less to do? Some call it creating partnerships; others use terms like regionalization, consolidation or working together. Some do it, but never actually name it or openly discuss it. No water system is an island; we need each other. 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.

Participants will learn:

- A variety of options for working with other systems
- How to evaluate their system's potential for partnership
- When to work alone
- Next steps to start or continue the conversation

Recommended audience for this workshop is anyone involved with a small water system.

Arsenic Remediation

November 5, 2019 @ 10 a.m.

Two water systems with similar levels of arsenic in their source water often need two entirely different types of treatment technology. Why? Because the ability of a specific type of treatment technology to remove arsenic depends on water chemistry. Learn more about what type of treatment is right for your water system, and find out if you can achieve Safe Drinking Water Act compliance for arsenic in drinking water, without installing treatment. This workshop will give you the tools to determine the right path to compliance for your system.

Seasonal System Operation

November 20, 2019 @ 10 a.m.

Did you realize that there is now a requirement to have procedures for seasonal system startup and shutdown? Thanks to the RTCR, we have requirements to develop and follow, an approved procedure. But wait, you're not done yet! Like the CCR, you are also required to certify your actions have been successfully completed. Learn about some of the tools that are available from the state to help you stay in compliance with these recent changes in regulations.

Seasonal water systems are required to follow this start-up procedure which includes:

- An inspection of water system components
- Disinfection and flushing
- Coliform and chlorine residual monitoring
- Using certified distribution operators
- Notifying local regulating agency (DDW District Office or County Environmental Health Office) upon start-up
- Seasonal water system start-up procedure and certification
- Seasonal water system instructions

Join us for an online session to address how to meet the requirements for a seasonal system start-up and shut down. This is a good workshop to get familiar with different aspects of water systems operations, even if you do not operate a "seasonal" water system.

Dealing with Nitrates Contamination

November 21, 2019 @ 10 a.m.

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

Google Earth Mapping

December 3, 2019 @ 10 a.m.

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.

Participants will receive a step-by-step tutorial on how to get started mapping their water system's assets using Google Earth Pro for project planning, public presentations and developing capital improvement plans.

Participants will learn:

- The basics of asset management
- The basic tools of Google Earth needed to map water system assets
- How to import scanned maps, hand held GPS coordinates and public domain GIS data
- How to derive water main pipe lengths and surface elevations for evaluating pipe alignments and tank sites for hydraulic analysis, project planning and cost estimating
- How to edit, save and share your Google Earth maps with project team members and the public

Recommended audience includes operators, managers and board members.

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



Hydrant Installation

December 11, 2019 @ 10 a.m.

A crucial part of any Capital Improvement Plan (CIP) is to follow through and complete tasks planned. One of these tasks is the replacement and/or installation of new fire hydrants. This workshop will outline the steps necessary to install wet barrel and dry barrel fire hydrants. This includes the initial planning, the installation itself and steps that may need to be taken upon completion of the installation.

- CIP overview
- Planning for fire hydrant installation
- Fire hydrant installation
- Recommended steps to follow upon completion of new hydrant installation

Recommended audience includes water system operators, maintenance staff and managers.

How to Prepare for a Sanitary Survey

December 12, 2019 @ 10 a.m.

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 contaminants from the water is an essential job function. Sanitary Surveys are a very 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 online 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



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 unless noted otherwise.

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). Besides the CalTAP Fair, all workshops are limited to 50 attendees.

AB54 & AB240: Ethics for Mutual Water Company Board Members

July 9, 2019 • 6-8 p.m. • Lake Isabella, CA
Paradise Cove • 10700 CA-178 • Lake Isabella, CA 93240

By law, all mutual water board members are required to have two hours of ethics training every six years, and within six months of taking office. This training is designed to provide for system longevity and helps assure that board members meet their legal responsibilities. Required topics of training 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 affects Mutual Water Systems as of January 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 and understand:

- All requirements of AB54 and AB240
- Financial conflicts of interest to avoid
- Strategic planning
- Financial responsibilities
- Capital Improvement Planning
- How to comply with the Safe Drinking Water Act

Recommended for all board members, accountants, bookkeepers and managers of small water systems.

Registration/Check-in: 5:30 p.m.; workshop: 6:00 p.m.-8:00 p.m.
Two contact hours.

Basic Electrical Concepts

July 10, 2019 • Fortuna, CA

River Lodge Conference Center • 1800 Riverwalk Dr. • Fortuna, CA 95540

Electricity and water are two great things that go great together. No, we are not saying you should directly mix the two, but how would you supply and control the water without the use of electricity? What IS electricity? Did you know that often, when you open an electrical panel, you are exposing yourself to the equivalent power of about six sticks of dynamite? How do we make it and use electricity? How is it that electricity brings to life little electronic items and allows sensors in a SCADA (computer control system) to work? In this workshop, we will review the basics of one of our lightest tools.

Participants will learn:

- What electricity is: We will review amps, volts and watts
- How does amperage effect temperature, and what IS temperature?
- Define basic machines we work with, e.g., pumps, motors, generators, engines.
- Learn about Dynes, Joules and horsepower
- What a kilowatt hour is
- What the difference in AC/DC power is
- How some basic electronic components work
- What is a Variable Frequency Drive (VFD) and how could it save you money to buy one

This workshop will give participants a review of electrical theory and help the participant better understand the use and control of electrical power. Recommended audience is system operators and managers.

CIP, Rate Setting & Prop. 218

July 11, 2019 • Crescent City, CA

Lighthouse Inn • 681 US 101 • Crescent City, CA 95531

August 13, 2019 • Palm Springs, CA

Hyatt • 285 N. Palm Canyon Dr. • Palm Springs, CA 92262

One major component of water rates is the Capital Improvement Plan (CIP). It is becoming all too common for public water systems to experience system failures, resulting in water outages or non-compliance issues caused by the underfunding of reserves. One method to avoid these issues is to plan for the future and to fund reserves. This workshop will show board members, managers and operators how to develop a CIP which will allow them to replace water system components prior to failure. Once the CIP is established, the workshop continues with the development of a forecasted budget and how this leads to new rates. Finally, the workshop will cover the latest interpretations of the Prop. 218 procedures.

Participants will learn and understand:

- What a CIP is
- Resources for planning and developing a CIP
- Prioritizing projects
- Updating a CIP
- How a CIP ties into other important documents and policies budgets
- How forecasted budgets lead to new rates
- Implementation requirements of Prop. 218

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

Groundwater Wells & Hydrology

July 24, 2019 • Sea Ranch, CA

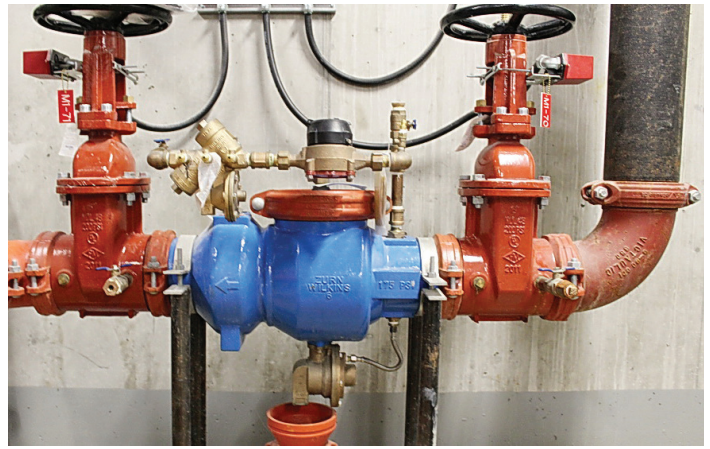
Ohlson Ranch House • 37405 Highway 1 • Sea Ranch, CA 95497

How is your well performing? How do you know what is going on deep in the ground? What goes into the process of choosing a well site? Well equipment must be maintained in order 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.

This workshop will look into the many challenges regarding wells maintenance.

- Well site selection process
- Well inspection
- Well maintenance
- Hydrology: groundwater qualities
- Drawdown and recovery tracking
- Well sounders: which one is right for me?

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.



Cross Connection Controls

July 25, 2019 • Sea Ranch, CA

Ohlson Ranch House • 37405 Highway 1 • Sea Ranch, CA 95497

Do you have an active cross connection control program? If not, it is time to get in the game. Not only are you required to have an approved program, but cross connection controls provide yet another barrier against water contamination. This workshop will give you the information and resources on how to develop a program that fits your small water system.

You will learn:

- How to identify potential cross connections
- What backflow prevention devices to use
- State requirements regarding cross connection control
- How to develop a successful program

Recommended audience includes operators, managers and board members.

Sanitary Surveys

August 13, 2019 • Sonora, CA

Best Western Plus Sonora • 19551 Hess Ave. • Sonora, CA 95370

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 contaminants from the water is an essential job function. Sanitary Surveys are a very 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 workshop will give the participants an overview of Sanitary Surveys. Guides and templates will be provided so that individuals can conduct Sanitary Surveys of their own water systems. Participants will learn:

- What a Sanitary Survey is
- The benefits of conducting your own Sanitary Survey to provide safe drinking water to your customers
- The Sanitary Survey requirements in the new Groundwater Rule
- How to use the Sanitary Survey guidebooks and templates

Pumps & Motors Efficiency

August 14, 2019 • Sonora, CA

Best Western Plus Sonora • 19551 Hess Ave. • Sonora, CA 95370

Pumping water is one of the most inefficient uses of energy there is. Most water pumping systems only convert 30 to 60 percent of the power they consume (and you pay for) into useful work, one of the lowest margins of efficiency of all commercial and industrial uses. Why? The laws of physics mostly, but also simple mistakes made in selecting a pump or motor for a given duty point. This workshop will help you understand and minimize inefficiency in your pumping systems and how to choose the right pump and motor for the job – one that will save money year after year.

Participants will learn:

- Where to find and how to use free Total Dynamic Head (TDH) and horsepower calculators on the internet
- How to calculate TDH in a fluid pumping system
- How to solve wire-to-water energy calculations
- The six factors in friction loss and how to minimize them

This workshop will give participants a variety of tools, tips and information they can use to reduce energy costs at their utilities. The recommended audience is system operators and managers.

Basic Financial Management for Operators & Managers

August 27, 2019 • Bishop, CA

Holiday Inn Express • 636 N. Main St. • Bishop, CA 93514

How can managers, operators and boards work together to build a financially stable utility? Financial management is often a mystery and we may not see our expertise as relevant, but each of you plays a key role in ensuring your system's financial health. This session will show you how you each fits into the puzzle.

Participants will learn and understand:

- How to budget
- How to set financial goals
- What and how to save
- Your role in each of these areas

The recommended audience is utility general managers, board members, operators and financial consultants.



SPECIAL EVENT: Arsenic Symposium

August 28, 2019 • Bakersfield, CA

Four Points Sheraton • 5105 California Ave. • Bakersfield, CA 93309

This symposium will provide participants with information on arsenic alternatives, performance, operation and maintenance costs, and arsenic removal case studies. USEPA dropped the Maximum Contaminant Level for Arsenic in drinking water to 10 ppb in 2006, and water systems are still struggling to comply with this lower standard today.

This workshop will give water system operators, managers and board members the tools they will need to make informed decisions when addressing ways to achieve compliance for Arsenic.

Participants will learn:

- What Arsenic is
- The acute health effects of Arsenic
- How Arsenic gets into drinking water
- Testing and modifying groundwater wells to reduce contaminant levels
- Ways to comply with SDWA requirements for Arsenic and to reduce contaminant levels without installing treatment equipment
- Treatment technologies that are effective for Arsenic

Presenters include:

Greg Gillis, AdEdge Water Technologies, LLC • Noah Heller, BESST, Inc. •

Stevan Palmer, RCAC • Tricia Wathen, California SWRCB Drinking Water Program



Budgets & Rate Setting for Small Water System Boards, Operators & Managers

August 29, 2019 • Bakersfield, CA

Four Points Sheraton • 5105 California Ave. • Bakersfield, CA 93309

Do you really need to increase rates? Improved understanding of financial reports will help you answer this question. The goal of good financial management is to ensure that the utility is operated as a financially sustainable enterprise, while providing safe and reliable water, both in the short- and long-term.

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, identify revenues and expenses, methods to balance the budget, and how to review a budget comparison report on a regular basis.

Participants will learn and understand:

- How to prepare a budget
- How to identify revenue and expenses
- Identify fiscal policies for assisting in balancing the budget
- How to review the budget comparison report on a regular basis
- How to establish a rate structure based on the true cost of producing and delivering water
- Who has to adhere to Prop. 218 and how to adhere it
- The latest legal cases impacting the structure and implementation of new rates

The recommended audience is utility general managers, board members, operators, financial consultants and financial analysts for cities under 10,000 customers.

Small Systems Operations, RTRC and Emergency Response Planning—AB1234

September 11, 2019 • Fresno, CA

Holiday Inn Express • 7191 Kathryn • Fresno, CA 93722

Working on small water systems can be challenging for rural communities with limited trained water staff. During this training we will review the use of ground-water for small drinking water systems. Sampling, monitoring and reporting under the RTRC-TCR along with contamination threats to groundwater and the use of chlorine to deter these threats will be reviewed. Basic operations, water distribution components and their use with small water utilities will also be covered.

Emergency Response Planning and AB1234 will be covered under this training to refresh community water boards and operational staff on the needs to prepare for potential emergency activities that you will need to deal from potential natural disasters.



Regulations Essentials

September 11, 2019 • San Diego, CA

Hampton Inn • 1531 Pacific Highway • San Diego, CA 92101

December 4, 2019 • Palm Springs, CA

Hyatt • 285 N. Palmer Dr. • Palm Springs, CA 92262

The California Safe Drinking Water Act defines the standards and procedures that water systems must comply with to provide safe drinking water. It is every operator's responsibility to understand and comply with these regulations. This workshop will provide the participants with a working knowledge of the most commonly used drinking water regulations.

This workshop will cover these key topics:

- Safe Drinking Water Act overview
- Safe Drinking Water Act history
- Maximum Contaminant Levels
- Waterworks Standards
- Water Quality Emergency Response
- Total Coliform Rule



Budgeting & CIP Development for Operators & Managers

September 12, 2019 • San Diego, CA

Hampton Inn • 1531 Pacific Highway • San Diego, CA 92101

Two primary tools for a small water system to become and remain viable are developing and maintaining comprehensive budgets and capital improvement plans (CIPs). This workshop will show board members, managers and operators how to develop a budget, including necessary capital improvement needs, methods to balance the budget, and how to review a budget comparison report on a regular basis. It will also show you how to develop a realistic CIP and achieve the goals of the plan through your budget.

Participants will learn and understand:

- How to prepare a budget
- How to identify revenue and expenses
- How to develop a CIP
- How to review the budget comparison report on a regular basis
- What types of corrective action can be implemented when you have unexpected expenses or falling revenues



SPECIAL EVENT: CalTAP Fair

September 19, 2019 • Redding, CA

Red Lion Redding • 1830 Hilltop Dr. • Redding, CA 96002

See page 1 for more information.

- Registration/Check-in: 8 a.m.; workshop: 8:30 a.m.-4:00 p.m. •

Source Water Protection

October 2, 2019 • Fairfield, CA

Hilton Garden Inn • 2200 Gateway Ct. • Fairfield, CA 94533

Surface water or groundwater can serve as drinking water sources and each has their own treatment requirements for public drinking water supplies. Protecting source water from contamination can reduce treatment costs, saving both time and money. Protecting source water also reduces risks to public health from exposures to contaminated water.

Source water assessments provide water utilities, community and others with information needed to protect drinking water sources. Learning how to conduct a source water assessment and implement management measures can prevent, reduce or eliminate risks to your drinking water supply.

This workshop will discuss key concepts for protecting source water.

- Delineation of source water protection area
- Inventory of known and potential contamination sources
- Determine susceptibility of your PWS to contaminant sources
- Public education about threats identified
- Management measures for prevention, reduction or elimination of risks
- Contingency planning for contamination events

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.



Customer Buy-In for Rates & Prop. 218

October 3, 2019 • West Sacramento, CA

RCAC • Sal Solinas Room • 3120 Freeboard Drive • West Sacramento, CA 95691

All water systems must increase rates to remain viable, maintain their infrastructure, and comply with water regulations. Many water systems struggled with those dreaded rate increases, and the Prop. 218 process. Do your customers have a difficult time understanding the true value of water service? This workshop will provide creative ideas on how to educate your customers to correct the discrepancies between the perceived value and actual value of water service. We will discuss the importance of public outreach and education, gaining support through transparency, and how to adhere to the Prop. 218 requirements when applicable. Participants will learn and understand:

- How to gain the support of customers when increasing rates
- Importance of communication, transparency and education
- Steps that can be taken to avoid a failed rate increase
- How to adhere to the Prop. 218 process
- Principles of an effective customer communication strategy
- The public hearing process

No Bad Bugs: Protecting your system from microbial contamination

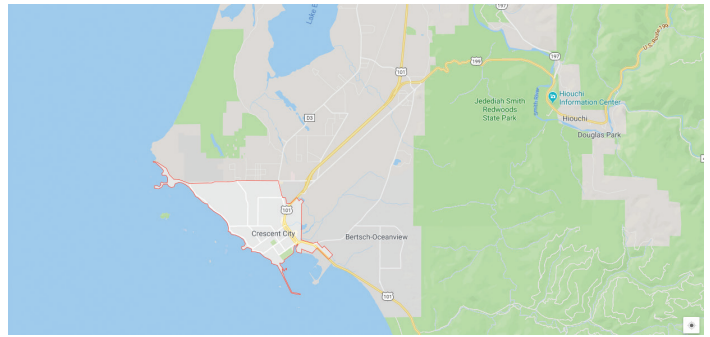
October 16, 2019 • Mt. Shasta, CA

Best Western Plus Treehouse • 111 Morgan Way • Mt. Shasta, CA 96067

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.

Through a series of hands-on exercises, 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



Mapping Small Water Systems with Free Google Earth Pro Desktop

October 17, 2019 • Mt. Shasta, CA

Best Western Plus Treehouse • 111 Morgan Way • Mt. Shasta, CA 96067

Effective asset management is critical to the overall financial performance of water utilities. Waiting until assets fail rather than planning for replacement significantly increases the cost of service. Developing and maintaining a detailed asset inventory is the first step in the process. Spreadsheet templates and GIS mapping tools can make the job easier.

Participants will receive a step-by-step tutorial on how to map a water system's assets using free Google Earth Pro for desktop.

Participants will learn:

- Basic asset management
- Capital Improvement Plan (CIP) development
- Google Earth Pro for desktop tools for mapping and data collection,
- Basic water system modeling using EPANET 2.0 for evaluating water main networks

Recommended audience includes operators, managers, board members, engineers and administrative staff.

Participants should download and install the free Google Earth Pro for desktop software (on a laptop) prior to the class (google.com/earth/) and bring the laptop.

Math Essential for Water System Operations

October 29, 2019 • Santa Maria, CA

Radisson Santa Maria • 3455 Skyway Dr. • Santa Maria, CA 93455

One of the many skills needed by water operators includes the ability to perform water math problems. This includes volume, chemical dosage, filtration math, sedimentation basic detention times and pipe velocity. This workshop will help the treatment operator master these formulas while using a conversion sheet.

Participants attending this workshop will learn:

- Volumes
- Chemical dosage
- Filtration rate of flow
- Detention times
- Pipe velocity

Recommended for all operators, especially those taking the certification exam.



Energy Efficiency

October 30, 2019 • Santa Maria, CA

Radisson Santa Maria • 3455 Skyway Dr. • Santa Maria, CA 93455

Nearly four percent of the nation's electricity is consumed by water and wastewater facilities, and industry experts are predicting that energy costs are likely to increase 20 percent over the next 15 years. Approximately 30 to 60 percent of the average municipal budget is typically associated with water and wastewater treatment costs. Historically, water and wastewater facilities were designed for peak capacity, with little consideration for operational efficiency. An energy audit performed by trained and certified personnel specializing in water and wastewater energy use can often uncover potential energy savings of 10 to 50 percent annually. But even a cursory examination done by in-house staff can often result in substantial energy savings.

Participants will learn:

- How to identify the biggest "energy wasters" in your operation
- How to calculate the break-even point (payback) of retrofitting obsolete equipment
- The difference between Level 1 (in-house) and Level 2 (contracted) energy audits
- How to select and hire a certified industrial energy auditor

This workshop will give all water systems the information and resources needed to start down the path toward increased efficiency and decreased costs.

Recommended audience is system operators, managers, board members and community leaders with an interest in energy cost reduction.

Must Have Financial Policies & Procedures for Small Water Systems

November 13, 2019 • Scotts Valley, CA

Four Points Sheraton Santa Cruz • 5030 Scotts Valley Dr. • Scotts Valley, CA 95066

Your financial policies are the blueprint to building a successful, sustainable water utility. Are yours up-to-date and complete? Polishing your policies can be the cornerstone to providing guidance in decision making, promoting staff efficiency and productivity, and safe guarding assets. The goals of good financial policies and procedures are risk management and to ensure that the utility is consistently operated as a financially sustainable enterprise while providing safe and reliable water, both in the short- and long-term.

Decision makers have very important financial responsibilities, including establishing the policy framework governing a utility's finances. Operators and staff support the board and implement financial management policies on a day-to-day basis and may be instrumental in recommending necessary policies. Comprehensive, well organized policies should be readily accessible and easy to reference.

As a result of attending, you will:

- Be able to list common financial policies for small water systems
- Recognize the benefits of written, up-to-date policies
- Identify which policies to create or update at your system
- Create a draft policy using a template

Recommended for all board and/or council members, accountants, bookkeepers and managers of small water systems.

Public Notification

November 14, 2019 • Santa Cruz, CA

Four Points Sheraton Santa Cruz • 5030 Scotts Valley Dr. • Scotts Valley, CA 95066

Water utilities are required to provide a minimum level of customer communication through Consumer Confidence Reports (CCRs), Public Notification, Proposition 218, Revised Total Coliform Rule and other requirements. Meeting and exceeding these requirements can move your utility from mediocre-to-good and from good-to-excellent.

This workshop will provide an overview of Federal and State customer communication requirements, and provide tools and resources for developing and implementing a comprehensive public notification plan.

Participants will learn:

- Why effective customer communication is vital for a small water system
- Federal and State requirements pertaining to public communication and notification
- Resources and tools for complying with Federal and State requirements
- Principles of an effective customer communication strategy
- Tips for online and new technology communication options





Operation and Maintenance Series: Maintaining Water Quality

December 18, 2019 • Ukiah, CA

Hampton Inn • 1160 Airport Park Blvd. • Ukiah, CA 95482

Public water systems are required to provide safe drinking water. Methods for providing safe drinking water vary from system to system, but there are a handful of methods that apply to all systems. This workshop designed for operators and managers will cover the methods used by most water systems to ensure acceptable water quality.

Participants will learn and understand:

- The technique and importance of coliform sampling
- The importance and methods for unidirectional flushing
- Disinfection basics
- Water storage tank cleaning and maintenance
- Cross connection prevention

Revised Total Coliform Rule (RTCR) Level 1

December 5, 2019 • Palm Springs, CA

Hyatt • 285 N. Palm Canyon Dr. • Palm Springs, CA 92262

Drinking water is one of the oldest known public health concerns. Preventing water-borne disease is one of the primary objectives of any drinking water system. Although waterborne disease outbreaks are relatively uncommon in the United States, they do occur. The importance of regular microbial monitoring cannot be over-emphasized. So much of your water system is underground and hidden from view; the only way to be sure you are effectively protecting public health is to monitor the quality of water delivered to customer taps. The primary tool for this is coliform monitoring.

This regulation is in the process of revision. We will have the latest proposed language and key steps to remain in compliance during the interim period. This workshop addresses all of the areas that a water system operator needs to know about the RTCR including:

- Importance of maintaining microbial safe water
- Actions necessary for the compliance with the RTCR
- Public Notification under the RTCR
- But wait, there's more!!! Reviewing and understanding the triggers for Level 1 and Level 2 assessments.

This is a must attend session for all operators to learn new essential skills or update your existing knowledge.



Capital Improvement Planning

December 19, 2019 • Ukiah, CA

Hampton Inn • 1160 Airport Park Blvd. • Ukiah, CA 95482

For any water utility, even a very small water system, the asset management (e.g., water tanks, pumps, computers, buildings, etc.) plays a significant role in the overall financial performance and the 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.

This workshop includes:

- What a CIP is
- Why a water system needs a CIP
- Eight Elements of a CIP
- Nine Criteria for Prioritizing
- Updating a CIP
- RCAC's CIP Model

Recommended audience includes board members, general managers, financial managers and operators.



Trainer Biographies



KEVIN BAUGHMAN, Rural Development Specialist – Environmental, provides technical assistance to tribal and small communities. He has more than 35 years of drinking water experience. He has provided drinking water in submarines and communities throughout the West. The last 13 years of his experience is in drinking water technical, managerial and financial topics in Hawaii, California and Nevada. Kevin holds California Grade 3 Water Treatment Operator Certification and a Grade 3 Water Distribution Operator Certification. He also holds a Nevada and Hawaii Grade 4 Water Treatment Operator Certification and Distribution System Operator Certification. Kevin has participated in maintenance and operations of water systems and their support equipment in the US Navy, San Diego County, Hawaii and Nevada. Kevin also has facilitated Participant Centered Training based water system treatment and distribution operator workshops in all these locations and online.

MICHAEL BOYD, Regional Environmental Manager, conducts numerous water system assessments, sanitary surveys, source water assessments and related technical assistance. He has more than 22 years of experience in public water systems operation, maintenance, inspection and management. He is a certified investigator/inspector and licensed Grade 1-4 Treatment/Distribution and backflow operator. Mike assists operators in set-up of new and existing water treatment facilities including surface water, iron and manganese removal, lime softening systems and ion-exchange treatment. He regularly conducts workshops on water system issues throughout the country.

RICHARD D. CULP, P.E., Rural Development Specialist – Civil Engineer, provides technical assistance to rural communities and public agencies on utility infrastructure design, construction, management, operation and administration. Richard has more than 23 years of experience as a registered civil engineer and 11 years managing a water, wastewater and electric utility district in California, developing policies, ordinances, budgets, capital improvement plans, supervising union labor, utility billing systems, payroll and human resources, rate studies, financial and operational reporting, web site development and public meeting presentations. His experience includes water and wastewater infrastructure GIS mapping, design, water modeling, permitting, grant funding, construction management and inspection. He holds a bachelor's degree in civil engineering and is a California licensed civil engineer with T1 & D1 certifications.

MARY FLEMING-LESLIE, 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 12 years of experience in financial management. Mary develops financial management training curricula and teaches online and classroom workshops for RCAC. She performs financial statement and rate analysis 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 18 years of experience teaching classroom workshops on water and wastewater utility technical, managerial and financial topics. John holds a Grade 3 California 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 part-time trainer for RCAC.

BRIDGET HARRIS, Rural Development Specialist – Financial, provides financial management and accounting training to boards, city and tribal councils, and staff of small utilities. She has over 13 years of experience in government and non-profit operational and financial management. She develops curricula for in-person training, and works one on one with systems in all aspects of financial management. Bridget has a degree in accounting from Gonzaga University, and holds a certification in lean system project management.

KATRINA HIOTT, Rural Development Specialist – 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 prior 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 on-site waste water systems.

JIM MCVEIGH, Drinking Water Specialist, has more than 40 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 recently 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.

ROSANNA NOVAL, Regional Environmental Manager, facilitates classroom and online workshops, analyzes utility finances, conducts board and public education activities, and provides specialized assistance to small water systems in Washington, Oregon and California. Experienced in regulatory compliance, infrastructure project financing,

natural resource management and laboratory operations, she brings a holistic approach to utility challenges. RosAnna's educational background is in environmental science, with a focus on water chemistry and natural resource education.

STEVAN PALMER, Assistant Environmental Director, provides training and technical assistance to small utilities throughout RCAC's region. He formerly held certification as a Level III Water Treatment and Water Distribution operator in Nevada, and currently holds Nevada certification as a wastewater treatment operator 1. He is a Certified Environmental Trainer (NESHTA), a Certified Safety Trainer (MSHA) and a Water Conservation Practitioner I (CA/NV AWWA). He develops training curricula and regularly teaches workshops for RCAC.

MILA SPITSYN, Rural Development Specialist – Environmental. Mila specializes in rate studies and community outreach, and provides technical assistance for water treatment. In addition, she participates in projects with the financial, Integrated Regional Water Management (IRWM), and median household income (MHI) survey teams. As part of the IRWM Planning work group, she conducts technical, managerial and financial (TMF) assessments for a wide variety of water systems in California. Previously she was at West Yost Associates, a hydrological engineering company, focusing on the sustainable future of community water systems. Mila has a bachelor's degree in Environmental Science and Management from UC Davis, with an emphasis on watershed science. She is currently studying for a Water Treatment Grade 2 License.

KIM STRONG, Rural Development Specialist – Environmental, conducts median household income (MHI) surveys, and provides managerial and financial technical assistance for water and wastewater systems in rural communities in California. Her responsibilities include planning and implementation of MHI surveys under RCAC's Proposition 1 and State Revolving Fund contracts with the State of California; coordination of mailings and door-to-door surveys while ensuring data confidentiality and adherence to all state and federal guidelines; response rate monitoring; data quality control; and final results letters and reports. Kim also represents RCAC at conferences, CalTAP Fairs and other outreach events. She is a member of the American Water Works Association (AWWA).

JEAN THOMPSON, Rural Development Specialist III – 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 20 years of water and wastewater experience throughout the western states. 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.

JERRY TINOCO, Rural Development Specialist – Environmental, holds a Level 1 Water Treatment operator certification in California and is starting the process to acquire more certifications as he begins to work on RCAC's Prop. 1 technical assistance team. Jerry's educational background is in environmental science. He is a former teacher and policy advocate, and brings that experience into his workshops. He has participated in various programs helping rural communities and oversees the Arsenic

Interim Solutions project in Arvin and involved in RCAC's Agua4All and Drinking Water for Schools work.

JOHN VAN DEN BERGH, Rural Development Specialist III – Environmental, provides rural communities with technical assistance in the areas of financial management and board training. He specializes in rate studies for small utilities, as well as implementing these rates through the Prop 218 process. He has more than 25 years' experience in the utility industry either as a contractor, a general manager, a board member or an operator. He has an MBA in finance from the University of Michigan, is a Project Management Professional (PMP), has both D2 and T2 Operators Licenses, and is a certified Clerk of the Board.

RANDY VESSELS, Rural Development Specialist III – Environmental (Circuit Rider), provides technical assistance and training to Tribal and small communities throughout California. He has more than 20 years of experience with water and wastewater systems. Randy holds a T3 California Water Treatment Operator Certification, a D3 California Water Distribution Operator Certification, and a Grade III California Wastewater Operator Certification. He has managed and operated water and wastewater systems in Northern California, including operation and maintenance of groundwater wells, chlorine disinfection, reverse osmosis treatment and wastewater ponds.

DAVE WALLIS, Technical Services Programs Manager, manages several programs for USEPA and the California SWRCB. Dave's primary areas of expertise include the supervision of operation, maintenance and management of both water and wastewater systems at Sequoia and Kings Canyon National Parks and the US Navy Public Works Center San Diego. Dave has 36 years of experience and maintains state certifications in California and Arizona including water treatment operations, water distribution system and wastewater treatment.

NEIL WORTHEN, Rural Development Specialist – Environmental, has 38 years of water and wastewater system operation and management experience in California, Hawaii and overseas. Neil holds certifications in water treatment, water distribution, wastewater treatment, water conservation, mechanical technology, environmental training and energy auditing. He has held operational posts with numerous California cities. He also was the water and wastewater supervisor for the Pohnpei State Government (Micronesia), and the general manager of a private firm operating and managing 25 water and wastewater facilities in Hawaii. More recently, he served as public works director for Rio Dell, California, and State Revolving Fund coordinator with California Rural Water Association. Neil is a part-time trainer for RCAC.



Training Information

Contact Hours & Certificates:

Each classroom workshop, Symposium and CalTAP Fair qualify for six (6) drinking water contact hours. Exception includes the AB54 class, which qualifies for two (2) drinking water contact hours.

Certificates will be provided at the conclusion of each on-site training to those pre-registered at least two weeks in advance, except for the CalTAP fair.

Each online workshop qualifies for two (2) drinking water contact hours. Certificates for all online sessions will be available for self-printing within 48 hours through your RCAC website registration/profile account. Self-printing classroom certificates are also be available for most workshops, but might possibly take longer to access through your online account. RCAC and the Water Board require signatures for in-person trainings and we must wait to receive the original classroom sign-in sheets to be sent from the RCAC trainers in order to verify attendance.

Online Workshops

RCAC uses the GoToTraining™ online platform. 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. Sign-in sheets are NO LONGER accepted to validate attendance for contact hours.

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

Each person does not need a separate connection to the online training, but EVERY person needs to complete an online evaluation in order to receive credit.

Your group leader will be sent an evaluation link (within two hours after the training) to share and be completed individually to receive credit. Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have a 60 attendee limit for online workshops. Cancellations can be made by email at registration@rcac.org or by phone at (916) 447-9832 x 1429.

IMPORTANT: Failure to attend three online workshops for which you reserved a seat in any six-month period will disqualify you from attending online workshops in the following six-month period. **Please cancel a minimum of 24 hours in advance to allow others to attend the training.**

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

<http://www.events.rcac.org/rcac/Calendar.asp>

Then choose "California" from the state drop down and click "Filter" (see example at right).

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

Training department phone: (916) 447-9832 ext. 1429 • Fax: (916) 372-5636

Mail: RCAC • 3120 Freeboard Drive, Suite 201 • West Sacramento, CA 95691

How do I find my certificates online?

You can now access your contact hour certificates online. (Not all trainings may be available). From the "View My Profile" page, click at the prompt for your certificates and history. That will take you to "My Registration Portal" page.

You can then print your certificates directly from your browser.

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 e-mail registration@rcac.org.

Certificates for all trainings may NOT be available. Contact registration@rcac.org if you cannot locate your training certificate online.

July–December 2019 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 www.rcac.org under *Trainings and Events*.

Name: _____
 Email: _____ (All notifications regarding workshop changes are made via email)

Company or Water System: _____

Preferred phone: ☐ Work ☐ Home or ☐ Mobile: (_____) _____ 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 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):

Classroom Workshops:

- ☐ 7/09/19 AB54 & AB240: Ethics for Mutual Water Company Boards (**Lake Isabella**)
- ☐ 7/10/19 Basic Electrical Concepts (**Fortuna**)
- ☐ 7/11/19 CIP, Rate Setting & Prop 218 (**Crescent City**)
- ☐ 7/24/19 Groundwater, Wells & Hydrology (**Sea Ranch**)
- ☐ 7/25/19 Cross Connection Controls (**Sea Ranch**)
- ☐ 8/13/19 CIP, Rate Setting & Prop 218 (**Palm Springs**)
- ☐ 8/13/19 Sanitary Surveys (**Sonora**)
- ☐ 8/14/19 Pumps & Motors Efficiency (**Sonora**)
- ☐ 8/27/19 Basic Financial Management for Operators & Managers (**Bishop**)
- ☐ 8/28/19 Arsenic Symposium (**Bakersfield**)
- ☐ 8/29/19 Budgeting & Rate Setting for Board, Operators & Managers (**Bakersfield**)
- ☐ 9/11/19 Small Systems Operations (**Fresno**)
- ☐ 9/11/19 Regulations Essentials (**San Diego**)
- ☐ 9/12/19 Budgeting & CIP Development for Operators & Managers (**San Diego**)
- ☐ 9/19/19 CalTAP Fair (**Redding**)
- ☐ 10/02/19 Source Water Protection (**Fairfield**)
- ☐ 10/03/19 Customer Buy-in for Rates & Prop 218 (**West Sacramento**)
- ☐ 10/16/19 No Bad Bugs: Protecting your system (**Mt. Shasta**)
- ☐ 10/17/19 Google Earth Mapping (**Mt. Shasta**)
- ☐ 10/29/19 Math Essentials (**Santa Maria**)
- ☐ 10/30/19 Energy Efficiency (**Santa Maria**)
- ☐ 11/13/19 Must Have Financial Policies & Procedures (**Scotts Valley**)
- ☐ 11/14/19 Public Notification (**Scotts Valley**)
- ☐ 12/04/19 Regulations Essentials (**Palm Springs**)
- ☐ 12/05/19 Revised Total Coliform Rule (RTCR) Level I (**Palm Springs**)
- ☐ 12/18/19 O&M: Maintaining Water Quality (**Ukiah**)
- ☐ 12/19/19 Capital Improvement Planning (**Ukiah**)

Online Workshops:

- 7/23/19 ☐ 10 a.m. Disinfection By-Products Rule II
- 7/24/19 ☐ 10 a.m. Board Roles & Responsibilities
- 7/30/19 ☐ 10 a.m. Water Supply & Sources
- 7/31/19 ☐ 10 a.m. Groundwater Wells with Iron
- 8/20/19 ☐ 10 a.m. Basic Operations for Board Members
- 8/21/19 ☐ 10 a.m. Storage & Distribution
- 9/04/19 ☐ 10 a.m. Lead & Copper
- 9/05/19 ☐ 10 a.m. Cross Connection Controls
- 9/10/19 ☐ 10 a.m. Operator Expected Range of Knowledge: Part 1
- 9/10/19 ☐ 2 p.m. Operator Expected Range of Knowledge: Part 2
- 9/24/19 ☐ 10 a.m. Public Notification
- 9/25/19 ☐ 10 a.m. Water Treatment Techniques
- 9/26/19 ☐ 10 a.m. Safe Drinking Water Act
- 10/08/19 ☐ 10 a.m. Financial Management for Small Water Systems
- 10/09/19 ☐ 10 a.m. Partner Up: Achieve Success by Working with Others
- 10/15/19 ☐ 10 a.m. AB1234: Ethics for Public Elected Officials
- 10/22/19 ☐ 10 a.m. Operator Math
- 10/23/19 ☐ 10 a.m. Water Well Operation & Maintenance:
Monitoring What We Cannot See
- 11/05/19 ☐ 10 a.m. Arsenic Remediation
- 11/06/19 ☐ 10 a.m. Water Quality Sampling
- 11/07/19 ☐ 10 a.m. Budgeting for Board, Operators & Managers
- 11/20/19 ☐ 10 a.m. Seasonal System Operation
- 11/21/19 ☐ 10 a.m. Dealing with Nitrates Contamination
- 12/03/19 ☐ 10 a.m. Google Earth Mapping
- 12/10/19 ☐ 10 a.m. AB54 & AB240: Ethics for Mutual Water Company Boards
- 12/11/19 ☐ 10 a.m. Hydrant Installation
- 12/12/19 ☐ 10 a.m. How to Prep for Sanitary Surveys

Registration questions or problems? Contact the Training Department:


Email: registration@rcac.org

Phone: (916) 447-9832 ext. 1429 • Fax: (916) 372-5636

Mail: RCAC • 3120 Freeboard Drive, Suite 201 • West Sacramento, CA 95691



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FREE California Drinking Water Workshops: July-December 2019

