

FREE California Drinking Water Workshops

Classroom & Online: January–June 2019

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

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.

January–June 2019 Workshop Topics and Locations

ONLINE WORKSHOPS

Regulations Basics:

- Surface Water Treatment Rule
- Consumer Confidence Reports
- The Safe Drinking Water Act
- Revised Total Coliform Rule
- Public Notification
- Operation Certification Math
- Disinfection By-Products Rule
- What You Need to Know About the Sustainable Groundwater Management Act
- Lessons Learned: The Flint Water Crisis

Board Basics:

- Basic Operations for Board Members
- Board Roles and Responsibilities
- Capital Improvement Planning
- Financial Management...
- Budgeting
- Financial Management and Rate Setting

Operations Basics:

- Water Supply & Sources
- Creating Operations and Maintenance Plans
- Storage & Distribution
- Water Treatment Techniques
- Dealing with Nitrate Contamination
- Pathogens in Drinking Water
- Water Well O & M
- Energy Efficiency

Other Topics:

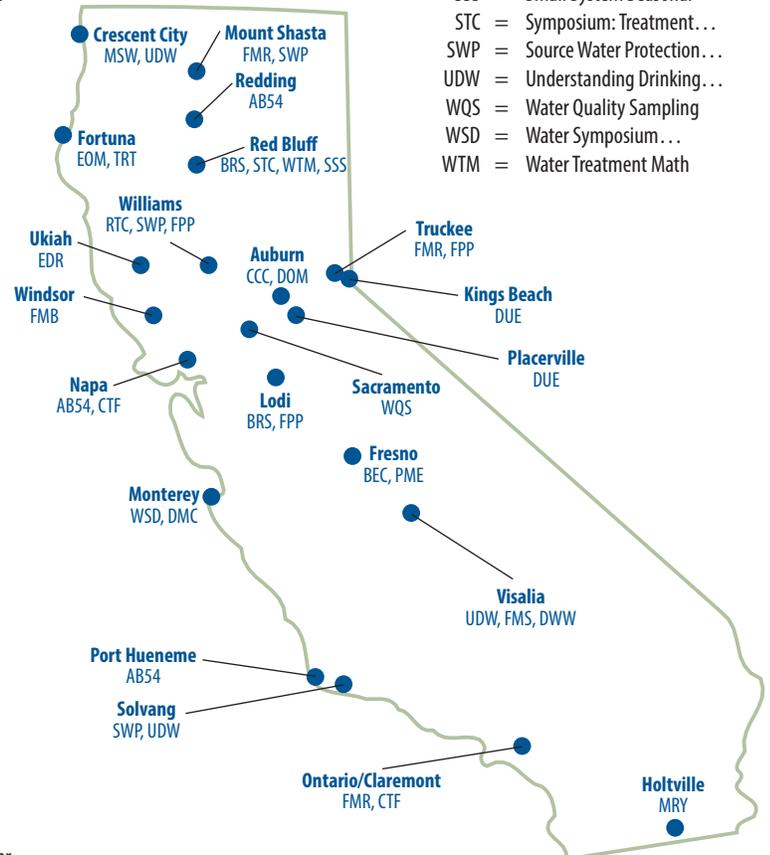
- Mapping Small Water Systems...
- Emergency & Disaster Response Planning
- Arsenic Rule Compliance
- Regionalization
- Cross Connection Controls

Ethics Topics:

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

CLASSROOM WORKSHOPS

- | | |
|--|--|
| AB54 = AB54 & AB240: Ethics... | EOM = Effective O & M |
| BEC = Basic Electric Concepts | FMB = Financial Management, Budget... |
| BRS = Budgeting & Rates Setting... | FMR = Financial Management & Rate... |
| CCC = Cross Connection Controls | FMS = Financial Management for Small... |
| CTF = CalTAP Fair | FPP = Financial Policies & Procedures... |
| DMC = Distribution Math &... | MRY = Math for Running Your... |
| DOM = Distribution O&M:... | MSW = Mapping Small Water Systems |
| DUE = Distribution O&M: Under... | PME = Pumps, Motors and Energy |
| DWW = Drinking Water Wells... | TRT = The Revised Total Coliform Rule... |
| EDR = Emergency & Disaster Response... | RTC = RTCR and Performing... |
| | SAE = Special Arsenic Event |
| | SSS = Small System Seasonal |
| | STC = Symposium: Treatment... |
| | SWP = Source Water Protection... |
| | UDW = Understanding Drinking... |
| | WQS = Water Quality Sampling |
| | WSD = Water Symposium... |
| | WTM = Water Treatment Math |



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Special Event: CalTAP Fair



Join us at the CalTAP Fair for Water Systems!

**June 20, 2019 • Claremont, CA
8:30 a.m. to 4:00 p.m.**

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

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: Claremont, CA • June 20, 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.	Treatment Technologies	Drinking Water Wells & Hydrology	Financial Policies
2:20 p.m.	Break		
2:40 p.m.	Chlorination	O&M Control Valves	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

Surface Water Treatment Rule

January 3, 2019 @ 10:00 a.m. & 2:00 p.m.

It's been raining for three straight days and your effluent turbidity just spiked at your water treatment plant. What monitoring and reporting procedures do you follow? What do those 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

The recommended audience is operators and managers of surface water treatment facilities.

Consumer Confidence Reports (CCRs)

January 30, 2019 @ 10:00 a.m.

March 26, 2019 @ 10:00 a.m. & 2:00 p.m.

Informing your customers annually about the sources and quality of your water became a state and federal mandate with the 1996 SDWA amendments. In 2012, regulations were updated to allow electronic delivery of Consumer Confidence Reports (CCR). The exact format and language required for a CCR can be confusing to those creating the report and confusing to customers trying to understand the report.

This workshop will guide you through the process of producing a customer friendly CCR for your water system. You will learn how to use the resources available to produce a CCR, information required to be included, and delivery options. If you are tasked with producing or reviewing this annual report, don't miss this opportunity to create a more valuable report for your customers while ensuring compliance with current regulations.

Participants will learn:

- Resources including California's CCR template and EPA's CCR iWriter
- Required language
- Important dates/deadlines
- Methods of distribution
- Public relations information

Recommended audience for this workshop is anyone who has responsibility for producing and disseminating CCRs, or gathering the data necessary for its completion.

The Safe Drinking Water Act

February 13, 2019 @ 10:00 a.m. & 2:00 p.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:

- 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

Revised Total Coliform Rule (RTCR)

February 14, 2019 @ 10:00 a.m. & 2:00 p.m.

Drinking water is one of the oldest known public health concerns. Preventing waterborne 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 monitoring and regulation is in the process of revision and we have the latest on the 2016 Revised Total Coliform Rule (RTCR) and how to comply.

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 2 assessments

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

Public Notification

March 6, 2019 @ 10:00 a.m. & 2:00 p.m.

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

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

Operation Certification Math

March 7, 2019 @ 10:00 a.m. & 2:00 p.m.

Do you cringe when someone mentions the word “MATH”? Many operators get nervous about this when it comes to testing. Did you know that by understanding basics of measurements, we can put this into terms that make each problem a little easier to work through? Most water works math can be made as simple as 1, 2 or 3. This means that after reading the problem you can make it into a 1-Distance, 2-Area, or 3-Volume measurement format. Dosing can be made as easy as filling in two out of three variable numbers on a pie chart and punching them into a calculator for the answer. In this workshop we will introduce you to the method of laying out the problem and making it easier to put the numbers in your calculator correctly to get the right answer. And we will try to make sure that the answers make sense when you do use a calculator to figure them out. Come review and practice with us.

Participants will review and practice some of the following:

- Basic math skills, which comes first, addition or multiplication?
- Calculating distances, areas and volumes
- Use distance, area and volume to understand flows and velocities
- Get comfortable with dosages and dosage rates
- Blending chemical strengths

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.

Disinfection By-Products Rule

April 11, 2019 @ 10:00 a.m. & 2:00 p.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: Operators and managers of water systems that chlorinate their water.

What You Need to Know About the Sustainable Groundwater Management Act

May 9, 2019 @ 10:00 a.m.

The Sustainable Groundwater Management Act of 2014 (SGMA) has been called “the most important legislation in California in 100 years.” SGMA mandates the sustainable use of California groundwater. Given the fact that many groundwater basins are in overdraft, implementation of sustainable practices very likely will have a significant impact on small water systems that use groundwater from these basins.

SGMA applies to the 127 High and Medium priority groundwater basins, which account for approximately 96 percent of groundwater use in California. It is therefore very likely that a significant number of California small water systems will be impacted by the implementation of sustainable practices mandated by this law.

Given that both Water Rights and Adequacy of Supply are Division of Drinking Water (DDW) Technical, Managerial and Financial (TMF) elements and that SGMA is very likely to have a significant impact on the both these elements for a large number of California small water systems, it is very important that these system have adequate training into SGMA’s process and requirements.

At the completion of the SGMA training participants will:

- Understand the basics of groundwater hydrology, including: the Water Cycle and types of aquifers.
- Understand the provisions of SGMA, including:
 - Who is affected by SGMA
 - The ultimate goal of sustainable water extractions from a basin
 - What are groundwater sustainability plans and how they might affect our operations
 - Strategies that may be used to achieve sustainability
 - Why you should be involved in your basin’s groundwater sustainability plan

The recommended audience for this workshop is water system managers, operators, administrative staff and board members.

Lessons Learned: The Flint Water Crisis

June 13, 2019 @ 10:00 a.m. & 2:00 p.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 has taken a hit on its reputation. Now is 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 event, there is a new emphasis on the monitoring of lead and copper in our drinking water. While the rule has not gone through a major revision, the interpretation has experienced some changes. Are you up to date with these?

Please join us and learn or reinforce your understanding of this new focus:

- 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 makes a valid sample
- Find out if your system needs to incorporate corrosion controls
- What do you tell the public?



BOARD BASICS

Basic Operations for Board Members

January 15, 2019 @ 10:00 a.m.

Many small public water systems have a board of directors, and most of these directors are volunteers 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

Basic Operations for Board Members

March 5, 2019 @ 10:00 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, 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

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.

Capital Improvement Planning (CIP)

April 10, 2019 @ 10:00 a.m. & 2:00 p.m.

It is all too common for public water systems to experience system failures, resulting in water outages or non-compliance issues. One method to avoid these issues is to plan for the future. This workshop will show board members, managers and operators how to develop a Capital Improvement Plan (CIP), which will allow them to replace water system components prior to failure.

Participants will learn and understand:

- What is a CIP
- Resources for developing a CIP
- Updating a CIP
- Planning and developing a CIP
- How a CIP ties into other important documents and policies
- Using free Google Earth Pro for CIP pipe length estimates

Recommended audience includes board members, managers and operators.

Financial Management for Small Water Systems

May 15, 2019 @ 10:00 a.m.

Do you want to improve your water system's financial health? As a board member, 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.

This session is ideal for a drinking water utility board member who needs to understand basic financial aspects of a utility's operations. 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 and how to read and interpret common financial statements, so more informed decisions can be made with the information that can be gained from them
- How to use financial statements to keep your system financially viable
- Elements of internal controls
- Identifying methods to balance the budget

OPERATIONS BASICS

Water Supply & Sources

January 16, 2019 @ 10:00 a.m. & 2:00 p.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 with a public water system.

Creating Operations & Maintenance Plans

January 31, 2019 @ 10:00 a.m. & 2:00 p.m.

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 on a daily basis to keep it 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 can operate and maintain the system in a safe and reliable manner in absence of the system's primary operator.

Participants will learn:

- The vital elements that comprise an O&M Plan
- The two 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

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

Storage & Distribution

April 23, 2019 @ 10:00 a.m. & 2:00 p.m.

This module presents the wide aspects and varying operation of water storage systems and distribution piping. The distribution and storage system is 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.



Budgeting

May 21, 2019 @ 10:00 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 to assist with 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

Financial Management & Rate Setting

June 11, 2019 @ 10:00 a.m. & 2:00 p.m.

In order to remain viable, all public water systems should be billing their customers for the true cost of producing and delivering safe, aesthetically pleasing water under sufficient pressure. To determine the true value of water produced, a comprehensive budget must be established. Budgets should include reserves for the future replacement of system components. This workshop will show board members, managers and operators how to establish fair rates based on a budget with true costs.

Participants will learn and understand:

- The need to fund reserves
- How to prepare a forecasted budget
- How to implement new rates while adhering to Prop. 218, when applicable
- How to convince the public when rate adjustments are needed
- The pitfalls and limitations of Prop. 13 and Prop. 218

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.

Emergency & Disaster Response Planning

April 24, 2019 @ 10:00 a.m. & 2:00 p.m.

Natural disasters that can affect public water systems in California include fires, floods, earthquakes, tsunamis and droughts. You name it, we have it. The fires in California have become increasingly vexing, and this workshop will focus primarily on fire prevention and recovery. It can happen to your water system! Water system emergencies are any situations which cause water outages, unsafe drinking water or any harm to humans or animals. Have you prepared ahead of time? Do you have a written response plan? Do you have mutual aid agreements in place? Are you prepared to interact with state and federal agencies afterwards?

Participants will learn:

- Ways to protect your water system before disaster strikes
- Lessons from emergencies experienced by the trainers
- How to establish effective mutual aid agreements
- How to create an emergency and disaster response plan using the Water Board-approved template
- Lessons learned regarding state and federal assistance immediately following emergencies

This workshop will provide water system personnel with information and resources to respond preemptively and proactively to most emergency situations.

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

Water Treatment Techniques

April 25, 2019 @ 10:00 a.m. & 2:00 p.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 will learn:

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

Dealing with Nitrate Contamination

May 1, 2019 @ 10:00 a.m. & 2:00 p.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

Pathogens in Drinking Water

May 7, 2019 @ 10:00 a.m. & 2:00 p.m.

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 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
- The regulations addressing them
- How to operate and maintain your water systems to minimize the possibility of microbial contamination

Water Well Operation & Maintenance

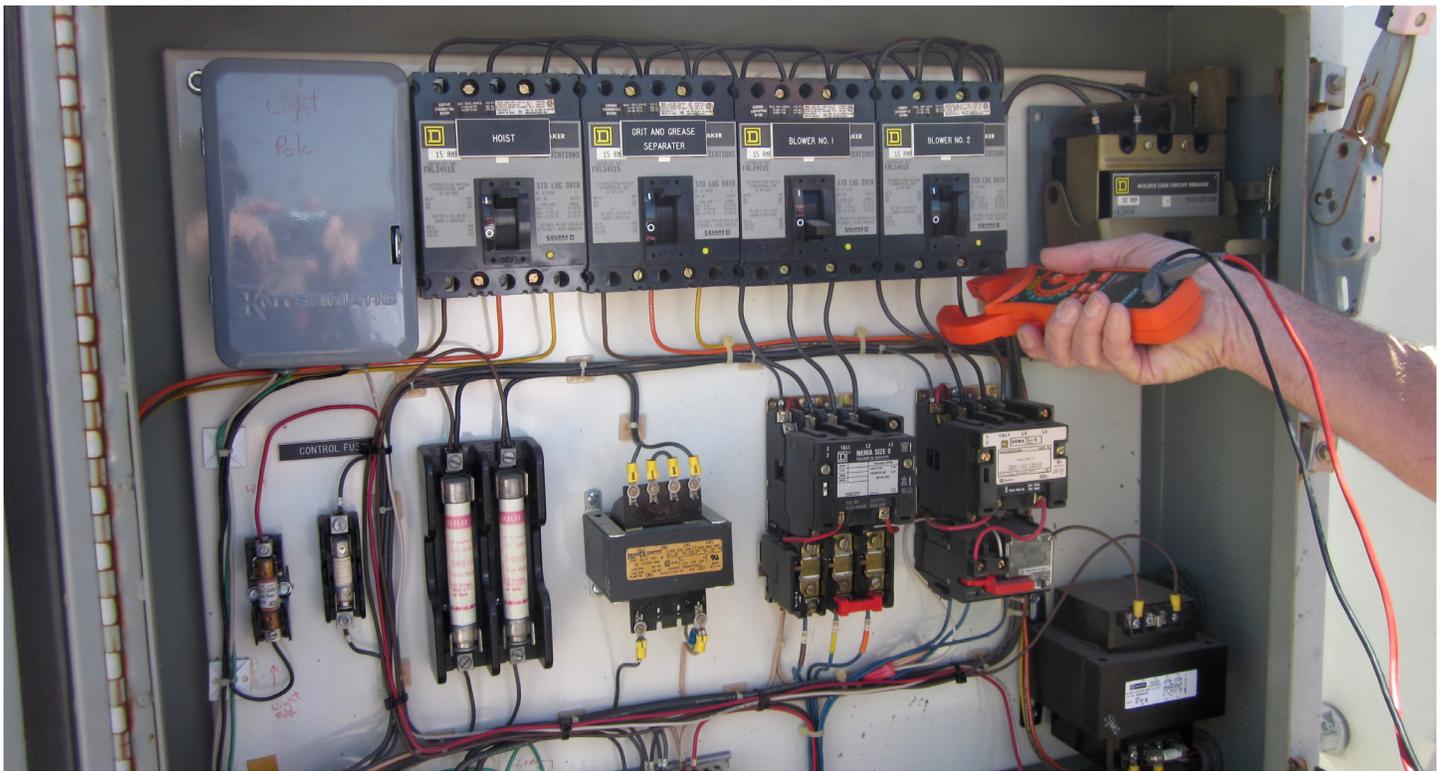
May 23, 2019 @ 10:00 a.m. & 2:00 p.m.

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.



Energy Efficiency

June 27, 2019 @ 10:00 a.m. & 2:00 p.m.

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.

OTHER TOPICS

Mapping Small Water Systems with Free Google Earth Pro Desktop

January 17, 2019 @ 10:00 a.m. & 2:00 p.m.

June 18, 2019 @ 10:00 a.m. & 2:00 p.m.

For a water utility, the 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
- Google Earth basic tools 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/).

Arsenic Rule Compliance

May 2, 2019 @ 10:00 a.m. & 2:00 p.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.

Regionalization

May 20, 2019 @ 10:00 a.m.

June 10, 2019 @ 10:00 a.m. & 2:00 p.m.

If aging infrastructure, snowballing regulatory requirements, increasing operating and maintenance costs are among the challenges your utility faces on a regular basis, this workshop is for you. You are not the only one challenged with providing services to your customers when everything is falling apart; others are dealing with the same challenges. So, how do you get to strategic operating when reactive operating is the norm? This workshop will cover the basics of working with others to maximize resources, eliminate redundancies and create economies of scale to create a sustainable utilities which overtime yield sustainable communities.

Cross Connection Controls

June 26, 2019 @ 10:00 a.m. & 2:00 p.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.

Participants 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.

ETHICS TOPICS

AB1234: Ethics for Public Elected Officials

January 29, 2019 @ 10:00 a.m.

April 09, 2019 @ 10:00 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 the "Brown Act" and your fiduciary responsibilities as elected officials. Good policies: Do you have them, 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

February 12, 2019 @ 10:00 a.m. & 2:00 p.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 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 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:

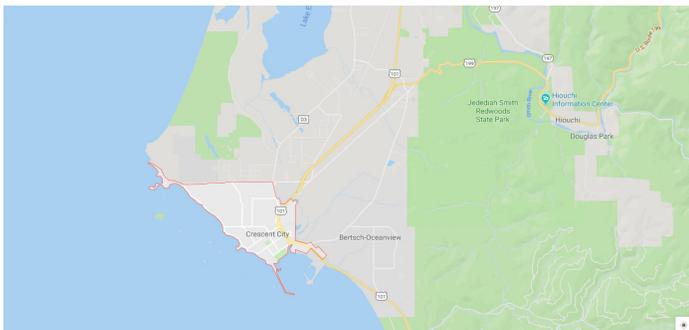
- All requirements of AB54 and AB240
- Financial conflicts of interest to avoid
- Strategic planning
- Financial responsibilities
- Capital Improvement Planning
- How to comply with the Safe Drinking Water Act

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

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 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.



Mapping Small Water Systems with Free Google Earth Pro Desktop

January 8, 2019 • Crescent City, CA

Light House Inn • 681 US Highway 101S • Crescent City, CA 95531

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 in this workshop will learn:

- Basic Asset Management
- Capital Improvement Plan (CIP) Development
- Capital Reserve estimating
- Spreadsheets and templates for CIPs
- Google Earth Pro for desktop tools for mapping and data collection,
 - How to import overlay maps, photos, hand held GPS coordinates and other GIS data
 - How to create water main maps and derive pipe lengths for estimating and surface elevations for evaluating alignments and tank sites, for hydraulic analysis and project planning
 - How to edit, save and share your Google Earth maps
 - Participants will be given time to create a map of their own water system
- Basic water system modeling using EPANET 2.0 for evaluating water main networks
 - Hydraulic Modeling hydrant flow rates for water main sizing and operational simulations

The 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.

Effective Operation & Maintenance Practices of Distribution Systems

January 9, 2019 • Fortuna, CA

River Lodge Conference Center • 1800 Riverwalk Drive • Fortuna, CA 95540

Most of the components of a distribution system are out of sight, making system maintenance particularly challenging. This workshop will address operations of drinking water distribution system components.

Participants in this workshop will learn:

- Sources of water and quality issues
- Tanks and pumps
- Water piping and valves
- Water meters and fire hydrants
- Water disinfection
- Distribution system safety
- Distribution math

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.

Cross Connection Controls

January 23, 2019 • Auburn, CA

Max's Holiday Inn • 110 Grass Valley Hwy • Auburn, CA 95603

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.

Participants in this workshop 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.

Distribution Operation & Maintenance

January 24, 2019 • Auburn, CA

Max's Holiday Inn • 110 Grass Valley Hwy • Auburn, CA 95603

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 on a daily basis to keep it 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 can operate and maintain the system in a safe and reliable manner in absence of the system's primary operator.

Participants in this workshop will learn:

- The vital elements that comprise an O&M Plan
- The two 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

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

Water Symposium: Distribution Operation Certification Range of Knowledge

February 06, 2019 • Auburn, CA

Hilton Garden Inn Monterey • 1000 Aguajito Rd • Monterey, CA 93940

Most of the components of a distribution system are out of sight, making maintenance of the system particularly challenging. This workshop will address operations of drinking water distribution system components.

Participants in this workshop will learn:

- Sources of water and quality issues
- Tanks and pumps
- Water piping and valves
- Water meters and fire hydrants
- Water disinfection
- Distribution system safety
- Distribution math

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.

Distribution Math & Chlorine Dosage

February 7, 2019 • Monterey, CA

Hilton Garden Inn Monterey • 1000 Aguajito Rd • Monterey, CA 93940

Chlorine is one of the most common drinking water disinfectants used on the planet today. Do you feed chlorine into your water system to achieve disinfection? Do you feed a given dose? Can you accurately and quickly adjust the dose if required or requested of you? What records do you keep for both the dosage and residuals? Why do you keep these records? What do the dosages and residuals indicate to the operator? As an operator, this is one of the most basic functions we should be able to perform. Would you like to be a little more comfortable with understanding all of this?

In this workshop, we will:

- Review the common sources of chlorine to be used for disinfection
- Discuss the advantages and disadvantages of each source of chlorine
- Discover the various methods used to feed these various forms of chlorine
- Review the math calculations needed to accurately feed each form of chlorine supply
- Talk about the maintenance and operations of the various pieces of equipment needed to safely use these chemicals

This class will focus on the various ways of meeting your system's disinfection needs, mostly with a focus on the various forms of chlorine. There will be opportunity to review your processes and procedures for the use and application of the various sources of chlorine for disinfection.

RTCR & Performing a Level 1 Assessment

February 20, 2019 • Williams, CA

Granzellas Banquet Hall • 457 7th St • Williams, CA 95987

Sampling for total coliforms and E. coli in the water system is one of the most important things an operator can do. The new Revised Total Coliform Rule (RTCR) effective April 2016 affects every public water system. These revisions to the Total Coliform Rule 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 and who is expected to perform them, and how to conduct an assessment with examples and small group exercises.

Participants in this workshop will learn:

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

Recommended audience includes operators, managers and board members or anyone with an interest in better understanding the value of operating a safe drinking water system.

Source Water Protection Planning

February 21, 2019 • Williams, CA

Granzellas Banquet Hall • 457 7th St • Williams, CA 95987

February 27, 2019 • Solvang, CA

Hotel Corque • 400 Alisal Rd • Solvang, CA 93463

June 4, 2019 • Mount Shasta, CA

Mount Shasta Resort • 1000 Siskiyou Lake Blvd. • Mt. Shasta, CA 96067

Surface water or ground water can serve as sources of drinking water 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.

Participants in this workshop will learn:

- Delineation of source water protection area
- Inventory of known and potential contamination sources
- Determine susceptibility of your PWS to contaminant sources
- Public education of identified threats
- 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.

Understanding Drinking Water Regulations

February 26, 2019 • Solvang, CA

Hotel Corque • 400 Alisal Rd • Solvang, CA 93463

April 2, 2019 • Visalia, CA

Wyndham Visalia • 9000 W Airport Dr • Visalia, CA 93277

June 25, 2019 • Crescent City, CA

Light House Inn • 681 US Highway 101 S • Crescent City, CA 95531

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.

Participants in this workshop will learn:

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

Financial Management for Small Water Systems

February 28, 2019 • Visalia, CA

Wyndham Visalia • 9000 W Airport Dr • Visalia, CA 93277

Do you want to improve your water system's financial health? As a board member, 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 ensure 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.

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

Participants in this workshop will learn:

- 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, and how to read and interpret the common financial statements so more informed decisions can be made with the information gained from them
- How to use financial statements to keep your system financially viable
- Elements of internal controls
- Identifying methods to balance the budget

Financial Management & Rate Setting

March 12, 2019 • Mount Shasta, CA

Mount Shasta Resort • 1000 Siskiyou Lake Blvd • Mount Shasta, CA 96067

March 27, 2019 • Ontario, CA

Comfort Suites • 1811 E Holt Blvd • Ontario, CA 91761

May 8, 2019 • Truckee, CA

Hampton Inn & Suites Tahoe-Truckee • 11951 State Highway 267 • Truckee, CA 96161

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.

Decision makers have very important financial responsibilities, including establishing the policy framework governing a utility's finances, planning for the system's financial future, preparation and adoption of budgets, monitoring and oversight of financial performance, and ensuring that enough funds are available to accomplish these goals. Operators and staff need the board's support to implement financial management policies on a day-to-day basis.

This workshop will show board members, managers and operators how good financial management helps to establish fair rates, with a budget based on true costs.

Participants in this workshop will learn:

- Financial terms and how to interpret financial statements
- How to prepare a budget
- Various methods to balance the budget
- 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 to it
- The latest legal cases that impact the structure and implementation of new rates

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

AB54 & AB240: Ethics for Mutual Water Company Board Members

March 13, 2019 • Redding, CA

Holiday Inn Hotel & Convention Center • 1900 Hilltop Dr. • Redding, CA 96002

April 30, 2019 • Napa, CA

Hampton Inn & Suites Napa • 945 Hartle Ct • Napa, CA 94559

June 19, 2019 • Port Hueneme, CA

Holiday Inn Express Port Hueneme • 350 E Port Hueneme Rd. • Port Hueneme, CA 93041

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 ensure 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 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 in this workshop will learn:

- 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.

Special time: these workshops will be 6:00 a.m.–8:00 p.m.

Math for Running Your Water System

March 14, 2019 • Holtville, CA

Barbara Worth Country Club & Resort • 2050 Country Club Dr. • Holtville, CA 92250

One of the many skills needed by water treatment operators is 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 in this workshop will learn:

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

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



CalTAP Fair: For Water Systems

March 21, 2019 • Napa, CA

Hampton Inn & Suites Napa • 945 Hartle Ct • Napa, CA 94559

June 20, 2019 • Claremont, CA

DoubleTree by Hilton Hotel Claremont • 555 W Foothill Blvd. • Claremont, CA 91711

See page 1 for more information.

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



Distribution Operation & Maintenance: Understanding Regulatory Requirements and Organizational Tools

March 28, 2019 • Kings Beach, CA

North Tahoe Public Utility District • NTEC Evergreen Suite • 8318 North Lake Blvd • Kings Beach, CA 96143

June 27, 2019 • Placerville, CA

Best Western Plus (Placerville Inn) • 6850 Green Leaf Dr. • Placerville, CA 95667

Daily we have a responsibility to ensure adequate water quality and quantity. Along the way we are asked simple questions like “Didn’t we have a leak there, last year?” “How many times has that pump broke?” We also need to do daily system checks, and look at trends in the values we see. Operating a water system is not strictly operating a shovel any more. There is more and more need to follow the manufacturer’s instructions on increasingly complex and more expensive equipment used in the reliable delivery of clean, safe drinking water. How do you keep track of your equipment maintenance and repairs? How do you keep track of jobs when you sometimes wait for months for repair parts? What are the relevant rules for your actions? Have you been operating though the introduction of the Ground Water Rule? The Revised Total Coliform Rule? Why are we required to have a license for both treatment and distribution operators?

Participants in this workshop will learn:

- Simple forms that will help you track and report on repair jobs, parts status and tasks completed.
- Learn how to track the status and condition of every piece equipment your system uses
- Understand what information is part of an effective preventative maintenance program
- Ensure your understanding of effective and accurate logging of system repair and maintenance activities
- Revisit the rules that set the guidelines for our activities

This workshop will give 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 increasing the effectiveness of their efforts to operate and maintain their water system.

Drinking Water Wells & Hydrology: Monitoring What We Cannot See

April 3, 2019 • Visalia, CA

Wyndham Visalia • 9000 W Airport Dr • Visalia, CA 93277

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.

Participants in this workshop will learn:

- 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.

Budgeting & Rates Setting for Small Water Systems

April 10, 2019 • Red Bluff, CA

Red Bluff Community/Senior Center • 1500 South Jackson Street • Red Bluff, CA 96080

May 30, 2019 • Lodi, CA

Holiday Inn Express Lodi • 1341 E Kettleman Ln. • Lodi, CA 95240

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 in this workshop will learn:

- 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

Financial Policies & Procedures for Small Water Systems

April 11, 2019 • Williams, CA

Granzellas Banquet Hall • 457 7th St • Williams, CA 95987

May 7, 2019 • Truckee, CA

Hampton Inn & Suites Tahoe-Truckee • 11951 State Highway 267 • Truckee, CA 96161

May 29, 2019 • Lodi, CA

Holiday Inn Express Lodi • 1341 E Kettleman Ln. • Lodi, CA 95240

“Do We Have a Policy for That?” 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 goal of good financial policies and procedures is risk management; 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, to your utility’s customers.

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.

Participants will learn and understand policies and procedures regarding:

- Banking and financial instruments
- Internal controls
- Reserve account funding
- Reporting errors, omissions and fraud
- Budgeting
- Code of Federal Regulations (CFR) Applicable Federal Awards (USDA, SRF, EPA)
 - Adhering to 7 CFR 1780
 - Adhering to 2 CFR 200
 - Adhering to 2 CFR 415 – 418
- Rates and Proposition 218
- Collections
- Board/council reports
- Financial records retention

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

Basic Electric Concepts

April 17, 2019 • Fresno, CA

Wyndham Garden Fresno Yosemite Airport • 5090 East Clinton Way • Fresno, CA 93727

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 water these days without the use of electricity? What IS electricity? How do we make it and use it? 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 in this workshop will learn:

- What is electricity: we will review amps, volts and watts
- What is a kilowatt hour
- What is the difference in AC / DC power
- 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.

Pumps, Motors and Energy Efficiency

April 18, 2019 • Fresno, CA

Wyndham Garden Fresno Yosemite Airport • 5090 East Clinton Way • Fresno, CA 93727

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 in this workshop 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.

Financial Management, Budgeting & CIP

April 24, 2019 • Windsor, CA

*Holiday Inn Windsor Sonoma Wine Country
8755 Old Redwood Highway • Windsor, CA 95492*

Do you feel confident managing your utility’s finances? Improving your knowledge of financial reports makes decision making easier and more accurate. Good financial managers ensure their utilities can sustain enough financial resources to fund safe and reliable access to water for both the short-term and long-term. You, as a decision maker, hold a very important role and need to understand how to establish sound financial policies, plan for future needs including infrastructure maintenance and replacement.

Board members, managers and operators will walk away from this workshop with a deeper understanding of:

- Financial terms and interpreting financial statements
- Development of a Capital Improvement Plan
- Prepare and monitor a budget
- Balance a budget
- Determine the need for rate adjustments

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

Symposium: Treatment Certification Range of Knowledge

May 15, 2019 • Red Bluff, CA

Red Bluff Community Center • 1500 S Jackson St. • Red Bluff, CA 96080

One of the many skills needed by water treatment operators is 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 treatment certification exam.

Water Treatment Math

May 16, 2019 • Red Bluff, CA

Red Bluff Community Center • 1500 S Jackson St. • Red Bluff, CA 96080

One of many skills needed by water treatment operators is the ability to perform water math problems. Dosing a tank or flow, flushing hydrants, and calculating static pressures are all part of a systems operational needs. This class will cover volume, chemical dosage, filtration math, detention times, pipe velocity and need-to-know water math numbers as related to the Water Board Grade I and II certification. This workshop will help the treatment operator navigate these formulas while using a conversion sheet.

Participants attending this workshop will learn how to calculate:

- Volume in cubic feet and gallons
- Pressure
- Chemical dosage
- Detention time
- Sedimentation and filtration
- Flow velocity

Please bring a pen or pencil and your favorite calculator.

Small System Seasonal Start-up, RTCR & Emergency Response Planning

May 29, 2019 • Red Bluff, CA

Red Bluff Community Center • 1500 S Jackson St. • Red Bluff, CA 96080

This training is an introductory program for seasonal Transient, Non-Community Water Systems operating campgrounds and other seasonal operations. The RTCR and Total Coliform Rule and their associated sampling and procedures will be covered during this training, along with sampling for other seasonal contaminants. Handling routine seasonal operational problems as required state start-up and shutdown procedures for seasonal systems will be covered.

Emergency Response Planning is an essential need that should be developed by all water systems, including TNC and smaller water systems. Various recent occurrences in California from both natural and manmade events have shown the need for all water systems to be properly prepared.

Emergency & Disaster Response Planning

June 6, 2019 • Ukiah, CA

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

Natural disasters that can affect public water systems in California include fires, floods, earthquakes, tsunamis, and droughts. You name it, we have it. The fires in California have become increasingly vexing, and this workshop will focus primarily on fire prevention and recovery. It can happen to your water system! Water system emergencies are any situations which cause water outages, unsafe drinking water, or any harm to humans or animals. Have you prepared ahead of time? Do you have a written response plan? Do you have mutual aid agreements in place? Are you prepared to interact with state and federal agencies afterwards?

Participants attending this workshop will learn:

- Ways to protect your water system before disaster strikes
- Lessons from emergencies experienced by the trainers
- How to establish effective mutual aid agreements
- How to create an emergency and disaster response plan using the Water Board-approved template
- Lessons learned regarding state and federal assistance immediately following emergencies

This workshop will provide water system personnel with the information and resources to respond preemptively and proactively to most emergency situations.

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

Water Quality Sampling

June 6, 2019 • West Sacramento, CA

RCAC Headquarters • 3120 Freeboard Drive, Suite 202 • West Sacramento, CA 95691

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 attending this workshop 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

This workshop will provide water system personnel with the information and resources to respond preemptively and proactively to most emergency situations.

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



The Revised Total Coliform Rule & Sampling

June 26, 2019 • Fortuna, CA

River Lodge Conference Center • 1800 Riverwalk Drive • Fortuna, CA 95540

Sampling for total coliforms and E. coli in the water system is one of the most important things an operator does. The new 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 system's integrity 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 and who is expected to perform them; how to conduct an assessment with examples and small group exercises.

Participants attending this workshop will learn:

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

Recommended audience includes operators, managers and board members.

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.

ANGELA HENGEL, Environmental Manager, has an AA degree in Water Technology Education from Palomar College, a T3 Water Treatment Operator Certification and a D3 Water Distribution Operator Certification from the State of California. Angela has 25 years of experience in the field of water treatment and distribution ranging from very small systems to a 40-million gallon per day conventional treatment plant. Angela was an instructor in the Water/Wastewater Technology Education program at Palomar College from 1998–2015.

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, Ms. Hiott 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.

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. Ms. Strong also represents RCAC at conferences, CalTap Fairs and other outreach events. She is a member of the American Water Works Association (AWWA).

JEAN THOMPSON-IBBESON, 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, 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 a 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. 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 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.

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 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

The screenshot shows a registration form with the following elements: a date selector for December 2017, a state dropdown menu currently set to "United States" with "State" selected in a red box, a city input field, and a "Filter" button with a red arrow pointing to it.

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.

The screenshot shows the RCAC website header with the logo and navigation tabs for TRAININGS, CALENDAR, and HOUSING COUNSELING TRAININGS. The main content area is titled "View My Profile" and contains a red-bordered box with the text: "To access your training history and certificates click here." Below this is a link to "EDIT" and a "VIEW MY PROFILE" button.

The screenshot shows the "My Registration Portal" for Mark Wiseman. It lists "MY CURRENT COURSE REGISTRATIONS" and "MY COURSE HISTORY". The "MY COURSE HISTORY" table has a red box around the "View Certificate" link for the "Basic Electric Concepts" course.

MY CURRENT COURSE REGISTRATIONS					
Course Name	Course Session	Date	Instructions	Certificate	
Financial Policies and Procedures for Small Water Systems	Financial Policies and Procedures for Small Water Systems 020718	2/7/2018			

MY COURSE HISTORY					
Course Name	Course Session	Date	Instructions	Certificate	
AB54 & AB240: Ethics for Mutual Water Board Members ONLINE	03232017 10am Online AB54 & AB240 Board Training for Mutual Water Systems	3/23/2017			
Basic Electric Concepts	120716CA Santa Barbara Basic Electric Concepts	12/7/2016	These contact hours have been approved for the Registered Environmental Health Specialist Program.		View Certificate

January–June 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:

- 1/8/2019 Mapping Small Water Systems... (**Crescent City**)
- 1/9/2019 Distribution System O&M... (**Fortuna**)
- 1/23/2019 Cross Connection Controls (**Auburn**)
- 1/24/2019 Distribution Operation & Maintenance (**Auburn**)
- 2/6/2019 Distribution Operation Certification Range of Knowledge (**Monterey**)
- 2/7/2019 Distribution Math Chlorine Dosage (**Monterey**)
- 2/20/2019 RTCR & Performing a Level 1 Assessment (**Williams**)
- 2/21/2019 Source Water Protection Planning (**Williams**)
- 2/26/2019 Understanding Drinking Water Regulations (**Solvang**)
- 2/27/2019 Source Water Protection Planning (**Solvang**)
- 2/28/2019 Financial Management for Small Water Systems (**Visalia**)
- 3/12/2019 Financial Management & Rate Setting (**Mount Shasta**)
- 3/13/2019 AB54 & AB240: Ethics... (**Redding**)
- 3/14/2019 Math Essentials for Running Your Water System (**El Centro**)
- 3/21/2019 CalTAP Fair: Energy Efficiency (**Napa**)
- 3/27/2019 Financial Management & Rate Setting (**Ontario**)
- 3/28/2019 Distribution Operation & Maintenance Operator... (**Tahoe**)
- 4/2/2019 Understanding Drinking Water Regulations (**Visalia**)
- 4/3/2019 Drinking Water Wells & Hydrology... (**Visalia**)
- 4/10/2019 Budgeting & Rates Setting for Small Water Systems (**Red Bluff**)
- 4/11/2019 Financial Policies & Procedures for Small Water Systems (**Williams**)
- 4/17/2019 Basic Electric Concepts (**Fresno**)
- 4/18/2019 Pumps, Motors & Energy Efficiency (**Fresno**)
- 4/24/2019 Financial Management Budgeting & CIP (**Santa Rosa**)
- 4/30/2019 AB54 & AB240... (**Napa**)
- 5/7/2019 Financial Policies & Procedures for Small Water Systems (**Truckee**)
- 5/8/2019 Financial Management & Rate Setting (**Truckee**)
- 5/15/2019 Treatment Certification Range of Knowledge (**Red Bluff**)
- 5/16/2019 Water Treatment Math (**Red Bluff**)
- 5/29/2019 Small System Seasonal Start-up & RTCR (**Red Bluff**)
- 5/29/2019 Financial Policies & Procedures for Small Water Systems (**Lodi**)
- 5/30/2019 Budgeting & Rates Setting for Small Water Systems (**Lodi**)
- 6/4/2019 Source Water Protection Planning (**Mount Shasta**)
- 6/6/2019 Emergency & Disaster Response Planning (**Ukiah**)
- 6/6/2019 Water Quality Sampling (**Sacramento**)
- 6/19/2019 AB54 & AB240... (**Port Hueneme**)
- 6/20/2019 CalTAP Fair (**Claremont**)
- 6/25/2019 Understanding Drinking Water Regulations (**Crescent City**)
- 6/26/2019 The Revised Total Coliform Rule & Sampling (**Fortuna**)
- 6/27/2019 Distribution Operation & Maintenance Operator... (**Placerville**)

Online Workshops:

- 1/3/2019 10 a.m. or 2 p.m. Surface Water Treatment Rule
- 1/15/2019 10 a.m. Basic Operations for Board Members
- 1/16/2019 10 a.m. or 2 p.m. Water Supply & Sources
- 1/17/2019 10 a.m. or 2 p.m. Mapping Small Water Systems...
- 1/29/2019 10 a.m. AB1234: Ethics for Public Elected Officials
- 1/30/2019 10 a.m. Consumer Confidence Reports
- 1/31/2019 10 a.m. or 2 p.m. Creating Operations & Maintenance Plans
- 2/12/2019 10 a.m. AB54 & AB240...
- 2/13/2019 10 a.m. or 2 p.m. The Safe Drinking Water Act
- 2/14/2019 10 a.m. or 2 p.m. Revised Total Coliform Rule
- 3/5/2019 10 a.m. Board Roles & Responsibilities
- 3/6/2019 10 a.m. or 2 p.m. Public Notification
- 3/7/2019 10 a.m. or 2 p.m. Operation Certification Math
- 3/26/2019 10 a.m. or 2 p.m. Consumer Confidence Reports
- 4/9/2019 10 a.m. AB1234: Ethics for Public Elected Officials
- 4/10/2019 10 a.m. or 2 p.m. Capital Improvement Planning (CIP)
- 4/11/2019 10 a.m. or 2 p.m. Disinfection By-Products Rule
- 4/23/2019 10 a.m. or 2 p.m. Storage & Distribution
- 4/24/2019 10 a.m. or 2 p.m. Emergency & Disaster Response Planning
- 4/25/2019 10 a.m. or 2 p.m. Water Treatment Techniques
- 5/1/2019 10 a.m. or 2 p.m. Dealing with Nitrate Contamination
- 5/2/2019 10 a.m. or 2 p.m. Arsenic Rule Compliance
- 5/7/2019 10 a.m. or 2 p.m. Pathogens in Drinking Water
- 5/9/2019 10 a.m. What You Need to Know...
- 5/15/2019 10 a.m. Financial Management for Small Water Systems
- 5/21/2019 10 a.m. Budgeting
- 5/23/2019 10 a.m. or 2 p.m. Water Well Operation & Maintenance
- 5/29/2019 10 a.m. Regionalization
- 6/10/2019 10 a.m. or 2 p.m. Regionalization
- 6/11/2019 10 a.m. or 2 p.m. Financial Management & Rate Setting
- 6/13/2019 10 a.m. or 2 p.m. Lessons Learned: The Flint Water Crisis
- 6/18/2019 10 a.m. or 2 p.m. Mapping Small Water Systems with Free Google Earth ...
- 6/26/2019 10 a.m. or 2 p.m. Cross Connection Controls
- 6/27/2019 10 a.m. or 2 p.m. Energy Efficiency

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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