Presented by: Rural Community Assistance Corporation (RCAC)
Funded by: California State Water Resources Control Board

FREE California Drinking Water Workshops

Classroom & Online: January–June 2021

RCAC
www.rcac.org

About the Workshops:

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

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

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

The 13 elements are:

Technical:

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

Managerial:

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

Financial:

- Budget Projection / Capital Improvement Plans
- Budget Control

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

Contact Hours & Certificates:

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

Each online one-part workshop qualifies for two (2) drinking water contact hours. Each online, two-part webinar workshop qualifies for up to four (4) drinking water contact hours. Attendees may register and participate in one part for two (2) drinking water contact hours or two parts for four (4) 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 may 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 who pre-registered at least two weeks in advance, except for the CalTAP fair.

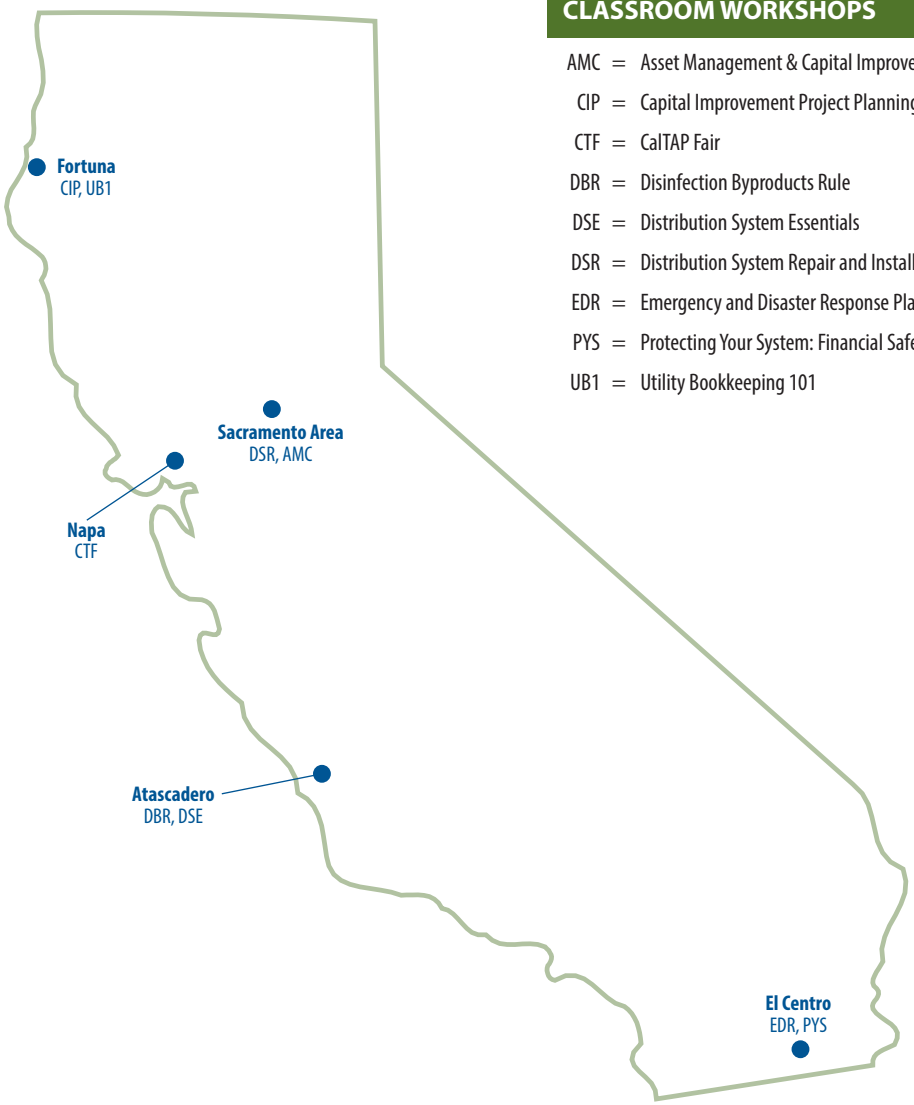
Cost:

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.

COVID-19 Response

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

January–June 2021 On-Site Workshop Topics and Locations



CLASSROOM WORKSHOPS

AMC = Asset Management & Capital Improvement Planning
CIP = Capital Improvement Project Planning
CTF = CalTAP Fair
DBR = Disinfection Byproducts Rule
DSE = Distribution System Essentials
DSR = Distribution System Repair and Installation Procedures
EDR = Emergency and Disaster Response Planning
PYS = Protecting Your System: Financial Safeguards
UB1 = Utility Bookkeeping 101

CalTAP Fair

Building Resilience in a New Environment

May 20, 2021 • 8:30 a.m.–4:00 p.m. • Napa
Hampton Inn & Suites Napa
945 Hartle Ct • Napa, CA 94559

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: Building Resilience in a New Environment• May 20, 2021
PROGRAM AT A GLANCE

8:00 AM	Registration Opens		
8:30 AM	Welcome & CalTAP Fair Presentations		
10:30 AM	Regulations Update		
	Technical Track	**Financial Track**	**Managerial Track**
1:00 PM	Building Resiliency Through Energy Efficiency	Rural Water System Recovery After Wildfire	Case Studies on Rural Water System Financial Impacts from COVID
2:40 PM	Increasing Power Grid Independence	Emergency Response Planning	Funding Your Next Emergency
4:00 PM	Adjourn		

The CalTAP providers are:

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

Online Workshops

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

Registration

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

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

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

Online certificates

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

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

Technical recommendations

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.**

Cancellation

Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have a 125 attendee limit for online workshops.

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

IMPORTANT: Failure to attend three 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.

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

Water Quality Sampling

January 13, 2021 @ 10 a.m. & 2 p.m.

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

Participants will learn:

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

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

Surface Water Treatment Rule

January 21, 2021 @ 10 a.m. & 2 p.m.

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

Participants will learn:

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

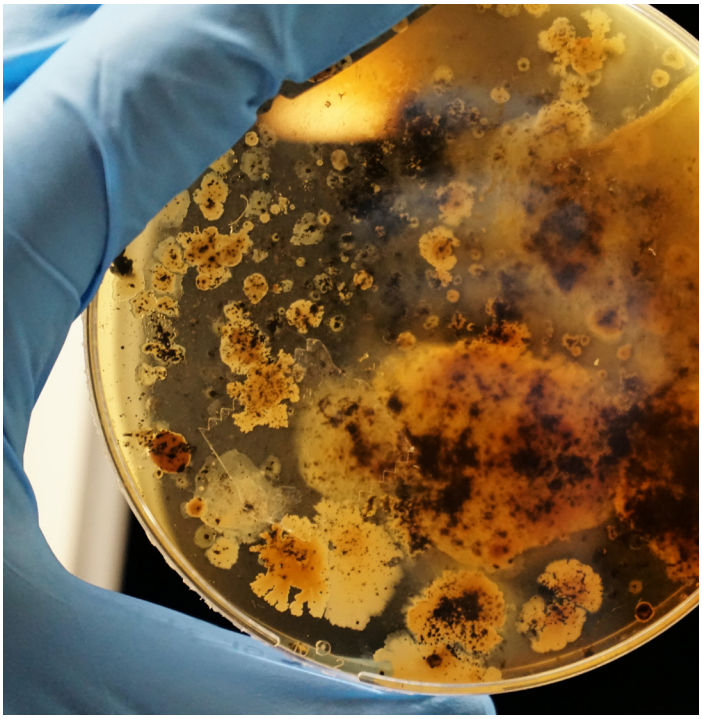
The recommended audience includes operators and managers of surface water treatment facilities.

Understanding Bacteriological Quality Standards

February 17, 2021 @ 10 a.m. & 2 p.m.

Providing safe and affordable drinking water to customers is the primary objective of any drinking water system. Routine monitoring for bacterial contamination is one of the most effective indicators of a potentially hazardous condition in your system. Although waterborne disease outbreaks are relatively uncommon in the United States, the threat can be deadly. Missed routine and repeat samples are costly in many ways including time, lab fees, penalties and consumer confidence, not to mention the health risk to the public.

Join us to learn or review the bacteriological standards required by both California State Total Coliform Rule (TCR) and Federal Revised Total Coliform Rule (RTCR). This workshop will address public water system standards for ensuring bacteriological quality through monitoring and reporting.



Participants will learn:

- The importance of total coliform as an indicator of water quality
- Compliance with California state and federal bacteriological quality monitoring and reporting regulations
- Public Notification requirements
- Triggers and follow-up for Level 1 and Level 2 assessments

The recommended audience includes new operators and managers as well as anyone interested in understanding bacteriological standards for public water systems.

Compliance Monitoring & Reporting

March 30, 2021 @ 10 a.m. & 2 p.m.

Public water systems are required to test for a multitude of constituents, both in their water sources and in the distribution system. What if we had just one simple place where we could go to in order to remember what we need to test for and when? Fortunately, the Water Boards have a website called Drinc that allows staff (and the public) to see what samples are due, when they are due and what past sampling results are. Once the results have been determined by the lab there may be state reporting required, as well as possible public notification.

Participants will learn:

- How to navigate the Drinc website to determine your monitoring requirements
- How to determine the best sampling techniques
- What to do with the water sample results
- The responsibilities to the state health department
- The responsibilities when notifying the public of pollutants or contaminates in your drinking water
- How to correctly fill out a chain-of-custody form

The recommended audience includes operators and managers.

BOARD BASICS SERIES

Budgeting for Small Water Systems

January 20, 2021 @ 10 a.m.

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

Participants will learn:

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

The recommended audience includes utility general managers, board members, operators, financial consultants and financial analysts for small water systems.

Recruitment & Retention

March 02, 2021 @ 10 a.m. & 2 p.m.

Your water operator, office staff or manager has just given their notice and they are moving on to another job. They have been there for years and know the system history, where all the (hidden) valves/meters are, and developed relationships with all entities required to manage or operate a public water system. The powers that be (local government and/or management) may be wondering, "What could we have done to prevent this employee from seeking other employment?" and "How do we go about hiring someone to replace this valuable resource?" This workshop will utilize the trainer's and participant's experiences to explore these conundrums.

Participants will learn:

- About advertising, interviewing and hiring of water system managers, office staff and operators
- The resources available to assist with hiring good people
- About budgeting to acquire and retain competent staff
- How to use staff evaluations to help with retention longevity
- How to retain excellent staff (hint, it's not always about the money!)

The recommended audience includes management & local government board of directors.

Rate Setting for Small Water Systems

April 13, 2021 @ 10 a.m. & 2 p.m.

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

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

Participants will learn:

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

The recommended audience includes utility general managers, board members, operators, financial consultants and financial analysts for small water systems.

ETHICS TOPICS

AB54 & AB240: Ethics for Mutual Water Company Board Members

January 26, 2021 @ 6 p.m.
March 17, 2021 @ 10 a.m.
May 04, 2021 @ 6 p.m.

By law, all mutual water board members are required to have two hours of ethics training within six months of taking office and every six years following. This training is designed to provide system longevity and help ensure that board members meet their legal responsibilities. Required training topics include conflicts of interest, fiduciary responsibilities, Safe Drinking Water Act compliance, long-term management and capital improvement planning. We will also cover the AB240 requirements, which affect mutual water systems as of 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:

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

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

OPERATIONS BASICS SERIES

Pathogens in Drinking Water

January 06, 2021 @ 10 a.m. & 2 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
- Regulations addressing contamination
- How to operate and maintain your water systems to minimize the possibility of microbial contamination

The recommended audience includes board members, managers and operators.

Pumps, Motors & Energy Efficiency

February 10, 2021 @ 10 a.m. & 2 p.m.

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 uses of energy. 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 teach you how to choose the right pump and motor for the job—one that will save money year after year.

This workshop will give participants a variety of tools, tips and information they can use to reduce energy costs at their utilities.

Participants will learn:

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

The recommended audience includes system operators and managers.

Water Distribution Math Techniques

February 18, 2021 @ 10 a.m. & 2 p.m.

One of many skills water distribution operators need is the ability to perform water math problems. This includes conversion numbers and conversion formulas including volume, pressure, chlorine dosage, pumping rates and pipe velocity. This workshop will help the treatment operator master these formulas while utilizing a conversion sheet.

Participants will learn:

- Volumes
- Pressure
- Chlorine dosage
- Pumping rates
- Pipe velocity

The recommended audience includes operators, office staff and management.

Operations Plans

March 16, 2021 @ 10 a.m. & 2 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 daily 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:

- 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
- About free resources and templates for developing O&M Plans

The recommended audience includes water system operators, managers and maintenance staff.

OTHER TOPICS

Customer Communications & Transparency

January 20, 2021 @ 2 p.m.

Outside of operations, communication and transparency are the two foremost relevant issues when running a water system. Without these collaborating factors, consumer confidence can lessen or be lost, resulting in problems or potential break-down of a system.

Participants will learn:

- How to build a functional communication structure
- How to maintain financial and operational transparency
- Community involvement best practices
- How to maintain good customer correspondence
- Ways to keep customer confidence

The recommended audience includes anyone that sets or manages policies, operates a water system, or interacts with the public or customers regarding a water system.

Using MHI Data for Water System Management

February 09, 2021 @ 10 a.m.

Is your small rural water system infrastructure coming to the end of its useful life? Are those replacement dates approaching quickly? Maybe your system is out of compliance with the Safe Drinking Water Act (SDWA), or can't meet peak daily water demand because of drought. Often small rural water systems find it difficult to set aside the appropriate reserve funds to pay for these costs and keep water rates affordable. Many systems depend on multiple state and federal funding sources in the form of grants, and zero- or low-interest loans to remedy these challenges. Don't assume that your system will qualify for these state and federal funds without doing your research.

Funding agencies use the community's median household income (MHI) to determine the grant amount and/or loan funds they can provide the system, and what is an affordable service rate. This course will help you to determine if your system needs an income survey conducted, and how it can be a tremendous benefit to your community.

Participants will learn:

- How to determine if your system could benefit from an income survey
- Benefits anaylsis
- How it could help you develop a stronger capital improvements plan
- The MHI process, how and when to get started
- Who conducts the survey, and who's going to pay for it

The recommended audience includes managers, board members and operators.

Capacity Building Through Partnerships

February 09, 2021 @ 2 p.m.

No water system is an island; we need each other. Small water systems must meet the same regulations as large systems without the economies of scale. What's a system with 1,000 connections or less to do?

This workshop will discuss the spectrum of opportunities for partnering with others. From casual information sharing or operational support, to formal consolidation or joint powers agreements, we will review the challenges and benefits of partnering up.

By creating partnerships and opportunities for working together we can solve some of our small system challenges.

Participants will learn:

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

The recommended audience includes anyone involved with a small water system.

Completing the Electronic Annual Report

February 16, 2021 @ 10 a.m. & 2 p.m.

The California Health and Safety Code specifies that a public water system shall submit a technical report to Division of Drinking Water (DDW) annually. Based on this requirement, DDW provides an updated template each year to every regulated public water system to report current contact information and operational details for the prior year. This template is provided electronically and water systems are encouraged to submit the information through the eAR portal website.

This workshop will guide you through the process of registering for your account and completing the template for your water system. You will have access to the informational guide and an opportunity to ask questions. Follow along with us as we guide you step-by-step and provide tips on entering information correctly.

Participants will learn:

- How to access your eAR account and template
- What resources are available including DDW eAR guidance
- The correct format for information entry
- Important dates/deadlines

The recommended audience includes anyone who has responsibility for reporting technical water system information annually or gathering the data necessary for eAR completion.

Cross Connection Controls

April 14, 2021 @ 10 a.m. & 2 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

The recommended audience includes operators, managers and board members.

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

May 06, 2021 @ 10 a.m. & 2 p.m.

Small public water systems that face challenges associated with removing naturally occurring contaminants from potable water supplies often find the path to compliance challenging. Prior to 1996, all water systems were required to use centralized treatment systems for the removal of naturally occurring contaminants. The1996 Amendments to the Safe Drinking Water Act (SDWA) removed the prohibition on using point-of-use (POU) and point-of-entry (POE) treatment devices for small public water systems in order to achieve compliance with some of the maximum contaminant levels (MCLs) established under the National Primary Drinking Water Regulations. These amendments have expanded the options small water systems may use to meet treated water standards for naturally occurring contaminants.

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

Participants will learn:

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

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

Operating During Public Safety Power Shut-off (PSPS)

May 25, 2021 @ 10 a.m. & 2 p.m.

In an ever-changing world, water systems and communities continue to face new and unique challenges. In this presentation you will learn about California's policies on planned rolling blackouts, and related impacts to systems. You will also learn how to plan for and manage these events and how to locate information, funding, and additional resources for preventative maintenance and improvements.

Participants will learn:

- PSPS, who it affects, and what it means for water systems
- How to identify and implement alternatives to traditional power generation
- How to locate and utilize resources for funding improvements
- How to apply best practices for updating emergency information and procedures
- How to identify resources for continued updates and notifications

The recommended audience includes board members and managers.

Consumer Confidence Reporting Compliance

May 26, 2021 @ 10 a.m. & 2 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. California regulations were updated in 2012 to allow for electronic delivery of Consumer Confidence Reports (CCRs). The exact format and language required for a CCR can be confusing to those creating the report, and to customers trying to understand it. This workshop will guide you through the process of producing a proper CCR for your water system for calendar year 2020. You will learn how to access the resources available on the DDW website, the information that must be included, and the various delivery options.

Participants will learn:

- Where to find and download California specific CCR template and guides
- The required language
- Important dates/deadlines
- The methods of distribution
- Public relations information

The recommended audience includes anyone who has responsibility for producing and distributing CCRs, or for gathering the data necessary for its completion.

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

June 02, 2021 @ 10 a.m.

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

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

Participants will learn:

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

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

Water System Basic Operations

June 02, 2021 @ 2 p.m.

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

Participants will learn:

- About doing "the rounds"
- Record keeping and reporting
- Daily/weekly/monthly tasks
- The responsibility to the public
- About dealing with the board of directors or other local government

The recommended audience includes local government board of directors, managers and operators.

Hydrant Installation

June 03, 2021 @ 10 a.m. & 2 p.m.

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

Participants will learn:

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

The recommended audience includes water system operators, maintenance staff and managers.

Groundwater Wells with Iron

June 15, 2021 @ 10 a.m. & 2 p.m.

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

Participants will learn:

- The iron in groundwater well basics
- Water distribution flushing techniques
- About oxidation, sedimentation and filtration
- Ion exchange treatment
- Sequestration

The recommended audience includes water system operators, maintenance staff and managers.

Arsenic Rule Compliance

June 16, 2021 @ 10 a.m.

Since the arsenic maximum contaminant level was lowered from 50 ppb to 10 ppb in 2001, water systems have been scrambling to comply with this more stringent standard. For many small water systems, compliance with the Arsenic Rule has been a significant technological, financial, and operational challenge.

This online learning event is intended to provide a small water system with "roadmap" to Arsenic Rule compliance. We will begin with review of the requirements of the Arsenic Rule. We will then explore non-treatment options for compliance, which are almost always less costly than treatment. We will then assess the pros and cons of several of the most common arsenic treatment technologies.

Participants will learn:

- The health effects of arsenic in water
- Non-treatment options for Arsenic Rule compliance
- An overview of the most used arsenic treatment technologies
- Practical considerations when choosing an arsenic treatment system

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

Dealing with Nitrates Contamination

June 16, 2021 @ 2 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

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

Two-Part Online Workshops

In response to COVID-19, RCAC is offering online, two-part trainings that are instructor-led, interactive, internet-based workshops designed to provide in-depth quality training without the participant having to travel.

Each part of the two-part workshop qualifies for two hours for a total of four hours if taken together. Attendees may register and participate in one part for two hours or two parts for four hours. Registration must be made for each part.

Asset Series: Capital Improvement Plans & Google Earth Mapping

January 05, 2021 @ 10 a.m. (Part 1: Capital Improvement Plans)

For a water utility, asset management plays a significant role in overall financial performance. Mapping a water system's assets can greatly assist with developing an asset management plan.

Participants will receive a step-by-step tutorial on how to get started developing capital improvement plans.

Participants will learn:

- The basics of asset management
- How to inventory your system
- Why asset management reduces costs
- Spreadsheet templates and other resources available to manage assets

The recommended audience includes operators, managers and board members.

January 05, 2021 @ 2 p.m. (Part 2: Google Earth Mapping)

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

Participants will learn:

- The basic tools of Google Earth needed to map water system assets
- 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 Pro maps

Participants should download and install the free Google Earth Pro for Desktop software before the class (https://www.google.com/earth/versions/#download-pro)

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

Once More into the Bleach: Handling & Application of Sodium Hypochlorite

Chlorine is the most commonly used drinking water disinfectant in all regions of the world. Today, about 98 percent of U.S. water treatment systems use some type of chlorine disinfection process to help provide safe drinking water. By a huge margin, sodium hypochlorite is the disinfectant used by the vast majority of small (less than 10,000 population) water systems. Hypochlorite is also the most hazardous chemical used by most of these water systems. If improperly handled, sodium hypochlorite can create a hazardous and potentially fatal environment.

This learning event gives small water system operators the knowledge, skills and resources necessary to safely handle and reliably feed sodium hypochlorite. This training will be presented in two, two-hour sessions.

January 12, 2021 @ 10 a.m. (Part 1)

Part 1 will cover the safe handling of sodium hypochlorite.

Participants will learn:

- The physical and chemical properties of sodium hypochlorite
- Safe handling of sodium hypochlorite
- Understanding hypochlorite decay and its effect on treatment
- How to read and use the sodium hypochlorite SDS

January 12, 2021 @ 2 p.m. (Part 2)

Part 2 will cover sodium hypochlorite treatment.

Participants will learn:

- The origins of germ theory and history of chemical disinfection
- Basic mechanisms of chemical disinfection
- 20 best practices for feeding hypochlorite
- The operation of hypochlorite feed pumps

The recommended audience includes all water system operators that use hypochlorite.

Budgeting Analysis & Rate Setting

January 26, 2021 @ 10 a.m. (Part 1)
January 26, 2021 @ 2 p.m. (Part 2)

If you are a board member, manager, or operator, it is important to understand the budgeting process and what it means for you. Budgets impact our daily work and understanding how to build them, analyze them, and use them to plan can shape our systems. Understanding the budget allows us to maximize resources and justify our rates, especially when an increase in rates is necessary.

Participants will learn how to:

- Evaluate budget and financial indicators
- Develop a prioritized capital improvement plan
- Create a budget to sustain that CIP
- Use these tools to determine revenue needs
- Set rates in California

The recommended audience includes board members, managers and operators.

Distribution System Operation & Maintenance

January 27, 2021 @ 10 a.m. (Part 1)
January 27, 2021 @ 2 p.m. (Part 2)

Your only licensed operator has just left town due to a family emergency and handed you the phone number of a certified operator in the next town. Will the substitute operator know how your system works and what needs to be done daily to keep 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

The recommended audience includes water system operators, managers and maintenance staff.

Operations Maintenance Series: Maintaining Water Quality

February 02, 2021 @ 10 a.m. (Part 1)
February 02, 2021 @ 2 p.m. (Part 2)

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

Participants will learn:

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

The recommended audience includes water system operators and managers. Board members, council members and water consumers are welcome to attend as a diverse group of participants should generate good feedback and networking regarding the demands of operating and maintaining a public water system.

Resiliency & Vulnerability Planning

February 03, 2021 @ 10 a.m. (Part 1)

Every system will have an emergency. Identifying potential risks and taking measures to mitigate their impact are the first steps to a successful recovery. In part one of this two-part series we will look at tools and techniques for assessing where your system may experience service interruption, unsafe water, or any other harm.

Participants will learn how to:

- Identify risks to their system
- Utilize available tools to begin mitigation efforts
- Understand the cost and benefit of instituting mitigation efforts
- Access tools for the completion of a hazard mitigation process

The recommended audience includes operators, managers and board members.

February 03, 2021 @ 2 p.m. (Part 2)

In part one of this series you learned about pre-hazard mitigation planning and how to reduce drinking water system vulnerabilities. In part two, we will provide water system personnel with the information and resources needed to respond preemptively and proactively to most emergency situations. A water system emergency is any situation which causes water outages, unsafe drinking water, or any harm to humans or animals. The emergency may have been created by a fire, flood or vandalism and having a written response plan, lines of communication and mutual aid agreements in place prior to an emergency will provide an avenue for thoughtful response.

Participants will learn:

- How to develop an emergency response plan and identify the eight core elements required in the ERP
- How to assess vulnerability and complete risk ranking as we introduce the concept of the vulnerability assessment
- The benefits of mutual aid agreements
- Where to look for resources to complete a written ERP

The recommended audience includes operators, managers and board members.

Drought Contingency Planning and Water Loss

February 23, 2021 @ 10 a.m. (Part 1)
February 23, 2021 @ 2 p.m. (Part 2)

Although the Governor has announced that the drought state of emergency has ended, we are now transitioning to a permanent framework for making water conservation a California way of life. Current prohibitions against wasteful water use practices and requirements for monthly water use reporting still remain in place. Planning for drought conditions is essential to ensure water supply for public health and safety and to minimize impacts on economics, environment and lifestyle. This workshop will cover how to plan for drought to reduce the vulnerability of the water system. Knowing how much water you have and use, plays a huge role in drought preparedness and water conservation. Learn how to monitor for drought, and lessons learned from the past. Understand the challenges of small systems, and how to keep up with current and new drought/conservation regulations.

Participants will learn:

- Where to find climate information
- How to determine triggers for different drought stages
- Best practices to reduce water use, making water conservation a way of life in your community
- How to develop a drought management plan and obtain public buy-in
- Useful tools and resources to keep up with current and new regulations

The recommended audience includes operators, managers and elected officials.

Asset Management & Capital Improvement Planning

February 24, 2021 @ 10 a.m. (Part 1)
February 24, 2021 @ 2 p.m. (Part 2)

For any water utility, even a very small water system, asset management (e.g. water tanks, pumps, computers, buildings, etc.) plays a significant role in the overall financial performance and sustainability of the water system. With proper planning, the useful life of equipment can be extended, emergencies can be avoided, and overall costs will be reduced.

A capital improvement plan (CIP) prioritizes the replacement or installation of infrastructure assets. It includes the forecasting and budgeting of capital outlay and is an integral part of the budgeting and rate-setting process for even very small water systems.

Participants will learn how to:

- Inventory assets
- Prioritize projects
- Analyze funding options
- Develop a CIP Reserve Fund
- Budget to support the CIP/Asset Management Plan

The recommended audience is governing bodies, general managers, operators and financial/accounting staff of small water systems.

Pumps & Motors Troubleshooting

March 03, 2021 @ 10 a.m. (Part 1)
March 03, 2021 @ 2 p.m. (Part 2)

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

Participants will learn:

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

The recommended audience includes system operators and managers.

The Building Blocks of Successful Construction Symposium

March 09, 2021 @ 10 a.m. (Part 1: Your Construction Toolkit)

Your water system has needed improvements for quite some time. Necessary improvements may include a main line extension, hydrant replacement/installations, a new storage tank, an upgrade to the water source or other component replacement/extension. A successful project begins with team development, funding and planning. The team may include a board member, it will include management, operations, office staff, the state health department, funder(s), a competent engineer and contractors that have been thoroughly vetted. Join this workshop where the trainer and participants will share their experiences and discuss how to build your own construction toolkit.

Participants will learn:

- County and state encroachment permitting
- Proper notification of other utilities when digging during projects
- Regular "check in" meetings with all involved parties
- Routine project inspections, including regular "walk by" inspections
- Developing the proper professional relationship with all involved parties to achieve your goals

The recommended audience includes local government (boards), managers and operators.

March 09, 2021 @ 2 p.m. (Part 2: SAFER Building Blocks)

Successful projects start with advanced planning, knowledge of what funding is available, and understanding the steps needed to complete the process. Join us as we explore California funding options and what you need to prepare in order to successfully advance your project to the finish line.

Participants will learn:

- How to prepare for project funding
- What funding sources are available
- Common issues with funding applications
- Where to find project funding resources

The recommended audience includes local government (boards), managers and operators.

No Bad Bugs: Protecting Your System from Microbial Contamination

It is the primary mission of every public water system to provide water that is safe to drink. While there are upwards of 100 chemicals regulated under the federal Safe Drinking Water Act and associated state drinking water regulations, none are as important—or have a larger potential for adverse impact to public health—as microbial contaminants. The current COVID-19 pandemic reinforces the immense impact microbial pathogens can have on public health. This training event is intended to remind and reinforce water system personnel of the importance of providing the basic level of [microbial-free] safe water.

Basic knowledge about the prevention, detection, and treatment of microbial contaminants in drinking water is an essential core skill set for every water system operator, manager, and board member.

This learning event will be presented in two, two-hour online sessions. To the maximum extent possible, each of the sessions will follow the theme of protecting your water system from microbial contamination but will also attempt to act as standalone subject matter.

March 10, 2021 @ 10 a.m. (Part 1: Sanitary Surveys—Prevention)

This session includes: the impact of microbial contaminants in drinking water, the primary pathways of how microbial contamination can enter the water system, and what actions a water system can take to prevent microbial contamination.

Participants will learn:

- Origins of public water systems to prevent waterborne disease
- The three categories of waterborne microbial contaminants and their sources
- The five most common pathways of microbial contamination into a public water system
- What a sanitary survey is and its importance in protecting a water system from microbial contamination
- The eight most significant areas of inspection for a sanitary survey (EPA Sanitary Survey Learners Guide)
- The water system operator's role in preventing microbial contamination when conducting system maintenance activities (AWWA standards)

March 10, 2021 @ 2 p.m. (Part 2: Disinfection—Microbial Treatment)

This session will cover the origins of germ theory and history of chemical disinfection, basic mechanisms of chemical disinfection and effectiveness of different disinfectants on different microbial organisms; and measurement of chemical disinfection effectiveness using the CT concept.

Participants will learn:

- The origin story of germ theory (Ignaz Semmelweis)
- The first use of chlorine disinfection in drinking water (John Leal)
- The two mechanisms of chlorine's disinfection action on microorganisms
- The four chemical, and one physical, disinfectants used in drinking water disinfection
- How the CT concept is used to quantify disinfection efficiency
- The four common maintenance activities that could potentially contaminant a water system

The recommended audience includes operators, managers and board members.

Financial Policies & Procedures

March 17, 2021 @ 10 a.m. (Part 1)
March 17, 2021 @ 2 p.m. (Part 2)

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 safeguarding assets. The goals of good financial policies and procedures include risk management and to ensure that the utility is consistently operated as a financially sustainable enterprise while providing safe and reliable water, both in the short- and long-term. Decision makers have very important financial responsibilities, including establishing the policy framework governing a utility's finances. Operators and staff support the board and implement financial management policies on a day-to-day basis and may be instrumental in recommending necessary policies. Comprehensive, well organized policies should be readily accessible and easy to reference.

Participants will learn:

- Common financial policies for small water systems
- The benefits of written, up-to-date policies
- Which policies to create or update at your system
- How to create a draft policy using a template

The recommended audience includes board and/or council members, accountants, bookkeepers, operators and managers of small water systems.

Groundwater Treatment Techniques

The purpose of this learning event is to provide California water system operators with a reconnaissance-level knowledge of the technologies employed to treat drinking water from groundwater supplies.

Eighty-five percent of California's public water systems use only groundwater as their primary source of water.

A State Water Resources Control Board report found that: *despite the fact that ninety-eight percent of Californians who receive water from a public supplier are served safe*

drinking water, a "significant number" of California communities rely on contaminated groundwater sources for their public drinking water supply, requiring the source to undergo a "comprehensive treatment effort."

Groundwater treatment is a complex topic. The range of contaminants of concern to safe drinking water is broad, covering essentially the entire chemical spectrum. Groundwater contamination is similarly diverse, encompassing both naturally occurring and man-made contaminants.

Groundwater system operators therefore need a comprehensive knowledge of groundwater treatment technologies and how these technologies are applied to removal / control of specific groundwater contaminants.

This training will be presented in two sessions.

March 31, 2021 @ 10 a.m. (Part 1)

This session is an overview of six approaches used in groundwater treatment. The basic technologies used in groundwater treatment and covered in this session include:

- Filtration
- Membrane processes
- Sorption processes
- Ion exchange
- Precipitation
- Chemical feed systems

Content includes basic information about each of these treatment technologies. We will then present an overview of the groundwater treatment processes that use these technologies, including:

- Process description
- Contaminants treated
- Design criteria
- Drawbacks of using this process

A groundwater treatment technologies matrix will detail the applicability of each of these technologies to the removal of specific contaminants.

The recommended audience includes all operators, managers, and board members of water systems that use groundwater as their source of water.

March 31, 2021 @ 2 p.m. (Part 2)

This session we will take a more in-depth look at the application of the treatment processes presented in part one to specific groundwater contaminants. We will explore treatment for the seven most common groundwater contaminants:

- Microbial contaminants (bacteria and virus)
- Iron and manganese
- Arsenic
- Nitrate
- Uranium
- Organics
    - VOCs
    - SOCs
- Hydrogen sulfide

The recommended audience includes all operators, managers, and board members of water systems that use groundwater as their source of water.

Developing and Keeping Utility Personnel

April 01, 2021 @ 10 a.m. (Part 1)
April 01, 2021 @ 2 p.m. (Part 2)

Workforce development is one of the most important reasons given for entering and leaving occupations. As we see an increased demand for qualified operators, are we doing enough to develop our workforce?

Participants will learn:

- Workforce development and its importance for their system
- How to identify one or more tools the system can utilize to form current and future operators
- How to utilize the system budget to plan for staff development and support

The recommended audience includes managers, operators, and boards.

Navigating Public Meetings Virtually

April 15, 2021 @ 10 a.m. (Part 1)
April 15, 2021 @ 2 p.m. (Part 2)

Due to COVID-19 there are several potential changes to the public meeting process to keep in mind. This course will focus on three critical aspects to consider as you organize your own virtual public meetings. We will discuss how virtual board meetings can include elements of web meetings with collaboration and discussion and how to use webcasts and webinars to present information to the attendees, and promote interaction between the attendees and members of the board. Learn the pros and cons of common online platforms, and the do's and don'ts when conducting virtual meetings.

Participants will learn:

- Open meeting laws to consider when planning your next virtual board meeting.
- The difference between webinars, web meetings, and web trainings
- How to differentiate between common online platforms and choose one that best suits your needs
- Resources to implement best practices for public participation in virtual board meetings

The recommended audience includes managers, operators, board members, secretary to the board.

How to Prepare for Sanitary Surveys

April 27, 2021 @ 10 a.m. (Part 1)
April 27, 2021 @ 2 p.m. (Part 2)

It is the ultimate responsibility of every operator, manager and board member to provide safe drinking water to their customers. The prevention and removal of contaminants from the water is an essential job function. Sanitary Surveys are a very important tool in helping water systems provide safe drinking water. The Groundwater Rule puts increased regulatory emphasis on conducting Sanitary Surveys and correcting deficiencies before they lead to water contamination events.

This course will give participants an overview of how to prepare for a Sanitary Survey.

Participants will learn:

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

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

Basic Electrical Concepts

April 28, 2021 @ 10 a.m. (Part 1)
April 28, 2021 @ 2 p.m. (Part 2)

Electricity is one of the most amazing and useful things that humans have harnessed for their own needs. What is it really and how does it work? What are the basic types and how do they relate to your various systems? This workshop will give participants a review of electrical theory and help them better understand the use and control of electrical power.

Participants will learn:

- What electricity is
- Basic electrical terms
- Basic electrical concepts
- Basic electrical components
- Basic machines we work with, e.g., pumps, motors, generators
- Kilowatt hours and utility demand charges

The recommended audience includes system operators and managers.

Water Operators & the Capital Improvement Plan

May 11, 2021 @ 10 a.m. (Part 1)
May 11, 2021 @ 2 p.m. (Part 2)

The water system operator is the heart of every public water system. They usually know what needs to be replaced and when, but there is occasionally a disconnect between operations and management. This could lead to public water systems experiencing system failures, resulting in water outages or non-compliance issues. One way to avoid these issues is to plan for the future. This workshop provides tools for the water system operators and management to communicate openly to assist management to develop a Capital Improvement Plan, which will allow them to replace water system components prior to failure.

Participants will learn:

- What a CIP is
- Resources for developing a CIP
- Planning and developing a CIP
- How the CIP ties into other important documents and policies
- Updating the CIP

The recommended audience includes board members, managers and operators.

Budgeting Analysis & Rate Setting

May 12, 2021 @ 10 a.m. (Part 1)
May 12, 2021 @ 2 p.m. (Part 2)

As a board member, officer, manager or operator of your community's water system, you have a very important responsibility. Your job is to ensure that the water system provides your community with an adequate supply of clean, safe drinking water delivered at a price that not only covers all the costs of providing the service but also allows the system to prepare and plan to provide it for many years to come. In this class we will break down the components to build a strong, realistic budget upon which to base your rates. We will also examine different rate structure types and how to select the one that best suits your community. When you go through this process, you will ensure your system receives the proper amount of income to cover all the functions on the expenses side of water production and delivery.

Participants will learn:

- Where to start to build a strong budget
- How to identify the "true costs" of providing the service
- How to use historic information to analyze rates
- How to determine the appropriate rate structure for your community

The recommended audience includes governing bodies, bookkeepers/accountants, operators and managers.

Revised Total Coliform Rule & Level 1 Assessment

May 13, 2021 @ 10 a.m. (Part 1)
May 13, 2021 @ 2 p.m. (Part 2)

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

Participants will learn:

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

The recommended audience includes managers and operators.

Source Water Protection

May 27, 2021 @ 10 a.m. (Part 1)
May 27, 2021 @ 2 p.m. (Part 2)

Surface water or groundwater can serve as drinking water sources and each has their own treatment requirements for public drinking water supplies. Protecting source water from contamination can reduce treatment costs, saving both time and money. Protecting source water also reduces risks to public health from exposures to contaminated water. Source water assessments provide water utilities, community and others with information needed to protect drinking water sources. Learning how to conduct a source water assessment and implement management measures can prevent, reduce or eliminate risks to your drinking water supply.

Participants 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 about threats identified
- Management measures for prevention, reduction or elimination of risks
- Contingency planning for contamination events

The recommended audience includes local government (boards), management and operators.

Financial Management & Accounting with QuickBooks

June 08, 2021 @ 10 a.m. (Part 1)
June 08, 2021 @ 2 p.m. (Part 2)

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

Participants will learn how to:

- Set up your chart of accounts
- Set up your customers and vendors
- Enter customer billing data and produce bills
- Record transactions
- Build your audit trail
- Produce your financial statements

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

Building Your Google Earth GIS Model & Map

June 09, 2021 @ 10 a.m. (Part 1)
June 09, 2021 @ 2 p.m. (Part 2)

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. GIS mapping tools can make the job easier.

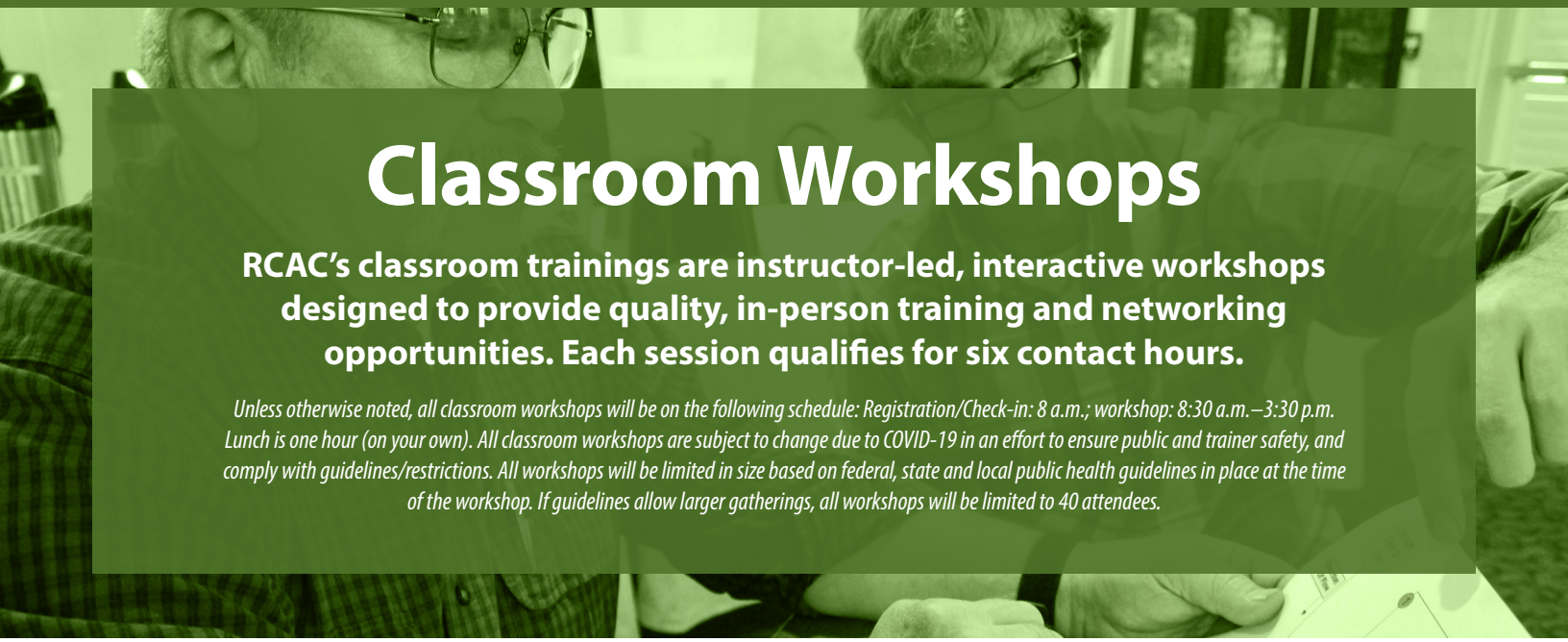
Participants will receive a step-by-step tutorial on how to map a water system's assets using free Google Earth Pro for Desktop.

Participants will learn:

- The basic tools of Google Earth needed to map water system assets
- 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 Pro maps

Participants should download and install the free Google Earth Pro for Desktop software before the class (https://www.google.com/earth/versions/#download-pro)

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



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). All classroom workshops are subject to change due to COVID-19 in an effort to ensure public and trainer safety, and comply with guidelines/restrictions. All workshops will be limited in size based on federal, state and local public health guidelines in place at the time of the workshop. If guidelines allow larger gatherings, all workshops will be limited to 40 attendees.

Disinfection Byproducts Rule

April 06, 2021 • Atascadero, CA

Holiday Inn Express Hotel & Suites Atascadero • 9010 W Front Rd • Atascadero, CA 93422

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

The recommended audience includes operators and managers of water systems that chlorinate their water.

Distribution System Essentials

April 07, 2021 • Atascadero, CA

Holiday Inn Express Hotel & Suites Atascadero • 9010 W Front Rd • Atascadero, CA 93422

This class is designed to provide information and tools that operators of small water systems need for proper operation and management of distribution systems, with focus on maintaining water quality, avoiding water loss, and maintenance of critical components. Many maintenance activities require advanced knowledge of not only valve and piping operations but also proper scheduled preventative programs in order to dependably deliver safe drinking water. These activities, when practiced as part of a routine maintenance plan, will help small systems to optimize their water supply in a sustainable manner.

Participants will learn:

- Leak detection & pipeline repair processes
- Main flushing guidelines
- Valve exercising and valve maintenance
- Meter checking and replacement programs

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

Distribution System Repair and Installation Procedures

April 20, 2021 • Sacramento Area, CA

A lot of preparation is required for a public water system to install or repair water mains, valves, hydrants, customer services and other appurtenances. Because most of this is considered "underground work", the preparation can be especially daunting. Does the system have annual encroachment permits with the county/state, or will individual project permits be required? Do you have standard specifications? Are there other utilities located in the area? Are you required by law to secure three quotes/bids? When might you need legal counsel to review something? This workshop will utilize the trainer's experiences, as well as the experience of participants in the workshop, to explore these and other potential issues.

Participants will learn:

- Discussion regarding the importance/acquisition of standard specifications
- When a system needs or does not need encroachment permits
- The quote/bidding process
- Hiring engineers and contractors
- Record keeping
- Discussions with the health department

The recommended audience includes operators and managers.

Asset Management & Capital Improvement Planning

April 21, 2021 • Sacramento Area, CA

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

Participants will learn:

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

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

Capital Improvement Project Planning

May 04, 2021 • Fortuna, CA

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

Planning for capital improvement projects requires detailed scheduling of multiple tasks, personnel, financing, political action, and communication. With proper planning, emergencies can be avoided, and overall costs will be reduced. A Capital Improvement Plan (CIP) prioritizes the replacement or installation of infrastructure assets. It includes the forecasting and budgeting of capital outlay and is an integral part of the budgeting and rate-setting process for even very small water systems.

Participants will learn:

- What a CIP is, with examples
- Methodology from step guides and templates
- GIS asset mapping resources
- Critical Path Method (CPM) scheduling

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

Utility Bookkeeping 101: From Shoebox to Financial Statements

May 05, 2021 • Fortuna, CA

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

Have you ever wondered where all the numbers on your financial statements came from? In this fast-paced, hands-on class, you will take a deep dive into developing a full set of books. From setting up the chart of accounts, journals and general ledger, to entering transactions, to producing financial statements, you will do it all! This class will be of value to everyone—even those using accounting software—who want a solid understanding of the behind the scenes processes that put their financial information into a useable format for making decisions.

Participants will learn how to:

- Set up and balance a set of books either manually or using Excel
- Enter transactions into journals
- Record journal entries into the general ledger
- Reconcile books and make closing entries
- Produce vital financial statements

The recommended audience includes governing bodies, bookkeepers/accountants, managers, operators.

Emergency and Disaster Response Planning

May 12, 2021 • El Centro, CA

County Of Imperial Conference Room • 940 W. Main Street • El Centro, CA 92243

California has often been jokingly described as a "natural disaster theme park." But the wildfires, earthquakes, floods, tsunamis and other hazards that routinely afflict Californians are no laughing matter, especially when they threaten the production and delivery of safe drinking water. A water system emergency is any situation that could potentially cause a water outage, contamination, or threat to public health. 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 during and after the threat? This workshop will provide water system personnel with the information and resources to respond preemptively and proactively to most emergency situations.

Participants will learn:

- How to assess vulnerability and complete risk ranking
- Ways to protect your water system before disaster strikes
- Lessons from emergencies experienced by the trainers
- How to create an emergency and disaster response plan

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

Protecting Your System: Financial Safeguards

May 13, 2021 • El Centro, CA

County Of Imperial Conference Room • 940 W. Main Street • El Centro, CA 92243

Safeguarding your financial assets is key to sustainability, but can a small system maintain financial controls without slowing down operations? In this training, we will look at how operators, managers, and board members can safeguard resources without a large staff or excessive time needs.

Participants will learn:

- Best practices for financial controls
- How to Identify barriers to good controls in their system
- How to begin a plan for how to implement controls that doesn't overtax resources

The recommended audience includes board members, managers and operators.

CalTAP Fair

May 20, 2021 • Napa, CA

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

See page 1 for more information.

Trainer Biographies

MICHAEL BOYD, Regional Environmental Manager, conducts numerous water system assessments, sanitary surveys, source water assessments and related technical assistance. He has more than 25 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.

HEATHER METROKIN CANNON, Rural Development Specialist – Environmental, provides training and technical assistance for Tribal and local governments and nonprofits with the goal of increasing the sustainability of rural communities. Heather is a certified Associate Water Asset Manager and holds a bachelor's degree in Urban and Regional Planning from Eastern Washington University. She has more than 30 years of public works and planning experience in the western US. Prior to joining RCAC her experience included managing a planning and building department, developing community outreach and education, assisting public water systems with state and federal compliance, developing and reviewing funding applications and water system planning documents. Heather develops emergency response, asset management, community facilities planning, and other related curricula and uses adult centered learning techniques while teaching for both RCAC and Eastern Washington University.

JASON CARMAN, Rural Development Specialist – Environmental, provides technical, managerial and financial assistance and training for drinking water and wastewater systems. He assists them to achieve regulatory compliance and improve operations procedures. Jason has over 25 years of experience working in all types of water and wastewater systems in operations and management. He is a grade 4 water distribution, grade 3 water treatment operator, and a licensed maintenance electrician in Oregon. His electrical experience is industrial in nature, focusing on power systems and industrial automation/SCADA. Jason has over 15 years of experience supervising distribution, treatment and electrical operations for public water and electric utilities. He has also been responsible for capital improvement plan creation and execution. He served as the Oregon Health Authority's Direct Responsible Charge (DRC) for one of the largest public water utilities in Oregon for four years. He regularly conducts technical and managerial workshops throughout RCAC's service area.

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 25 years of experience as a registered civil engineer in California and 11 years managing a water, wastewater and electric utility district in California. His management experience includes: policies, ordinances, budgets, capital improvement plans, supervising union labor, utility billing systems, QuickBooksTM, payroll, rate studies, ERP/operation/maintenance plans, web site development and public meeting presentations. Water/wastewater experience includes: surveying, mapping, design, water system modeling, permitting, grant funding, construction management and inspection. Richard has a bachelor's degree in civil engineering and maintains California water treatment/distribution certifications.

MARY FLEMING-LESLIE, Rural Development Specialist – Environmental, provides financial management and QuickBooksTM technical assistance and training to small utilities and nonprofit housing organizations' staff, management and board of directors. She has more than 30 years of experience in financial management. Mary develops financial management training curricula and teaches online and 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 QuickBooksTM Pro Advisor and holds a bachelor's degree in accounting from California State University, Stanislaus.

JOHN HAMNER, Rural Development Specialist – Environmental, has more than 24 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 II – Environmental, provides financial and managerial trainings to boards and councils throughout the rural west. She has over 15 years of experience leading management and financial aspects of nonprofit organizations. She develops and delivers curricula for in-person and online

trainings, as well as system specific trainings for staff and boards. Bridget conducts financial analysis and rate studies throughout the west. She holds a bachelor's in accounting and an MBA in finance. Additionally, Bridget holds a T1 OIT certification in Nevada.

ANGELA HENGEL, Environmental Manager, has an associate degree degree in Water Technology Education from Palomar College, a T3 Water Treatment Operator Certification and a D3 Water Distribution Operator Certification from the State Trainer Biographies of California. Angela has 27 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 II – Environmental, provides training and technical assistance to mutual water companies, nonprofits, and local and Tribal governments to improve or develop water and wastewater systems and programs for rural communities. Before joining RCAC, Katrina worked as an environmental health specialist in water protection programs in local government where she assisted the public in complying with county well ordinances and state water codes. Her prior experience includes creating and conducting environmental education programs, assisting small public water systems with state and federal compliance, performing water system and private well evaluations, well construction, destruction and modification permitting, and inspection of new construction of on-site wastewater 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 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.

RODNEY PAGE, Rural Development Specialist – Environmental, provides technical assistance throughout the western United States to improve or develop water, wastewater and solid waste systems and programs in rural communities. He also conducts assessments and plans, delivers training, and assists rural communities in program development, research and analysis. With experience in the management of water and wastewater contracts and policies at both private and federal entities, he is able to bridge the gap between communities in need and the resources available to them. He has been a project manager of wastewater construction projects in Hawaii as well as contracting officer's technical representative for the Bureau of Reclamation's Central Valley Project. Also, serving as the chairman of the safety committee for the Mid-Pacific Construction Office.

PHILLIP RICE, Rural Development Specialist – Environmental, is a trainer under the SRF California contract. He holds T2 and D2 certificates and has close to 10 years in the field of water treatment. He has experience in the areas of: rural technical assistance, operation and maintenance of small water systems, supervision and maintenance of commercial wells, working in surface water treatment plants (up to 30MGD), working within distribution systems, and small wastewater systems.

KIM STRONG, Rural Development Specialist – Environmental, teaches classroom workshops and provides managerial and financial technical assistance for water and wastewater systems in rural communities in California. Kim conducts median household income (MHI) surveys and her responsibilities include planning and implementation of MHI surveys under RCAC's Proposition 1 and State Revolving Fund contracts with the State of California. Kim also represents RCAC at conferences, CFCC and CalTAP Fairs and other outreach events. She is a member of the American Water Works Association (AWWA).

JEAN THOMPSON, Rural Development Specialist III – Environmental, teaches classroom workshops and provides on-site technical assistance to water and wastewater utilities on technical, managerial and financial issues. She has more than 27 years of water and wastewater experience throughout the western states. She has been Chair of the Small Systems InterAgency Committee for seven years. Jean previously managed the Delhi County Water District, a water and wastewater system in Merced County. She served as president on the California Rural Water Association board, and National Director representing California on the National Rural Water Association Board. She was a manager for the California Rural Water Association for 10 years, serving on many CDPH technical advisory committees, developing the TMF criteria and Water Works standards for California.

RANDALL J. VESSELS, One of three SAFER CA Field Managers – Environmental, provides technical assistance and training to small water systems throughout California. He has more than 25 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, wastewater ponds, sequencing batch reactors and sludge drying beds.

NEIL WORTHEN, Rural Development Specialist – Environmental, has 40 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 served as 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 was the 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 qualifies for six (6) drinking water contact hours. Exceptions include the AB54 & 240 class, which qualifies for two (2) drinking water contact hours.

Each one-part online workshop qualifies for two (2) drinking water contact hours. Each online, two-part webinar workshop qualifies for up to four (4) drinking water contact hours. Attendees may register and participate in one part for two (2) drinking water contact hours or two parts for four (4) 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.

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 may 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.

COVID-19 Response

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

Online Workshops

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.

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

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

Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have a 125 attendee limit for online workshops. Cancellations can be made by email at *registration@rcac.org* or by phone at (916) 447-9832 x 1429. Please do not cancel through GoToTraining.

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

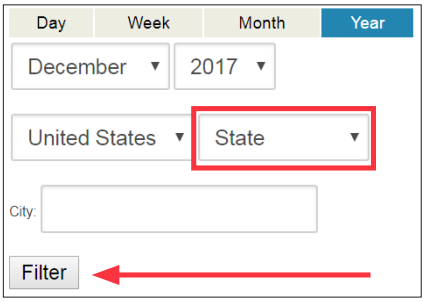
For the fastest registration and most current information, please visit:
http://www.events.rcac.org/rcac/Calendar.asp

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

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

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

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

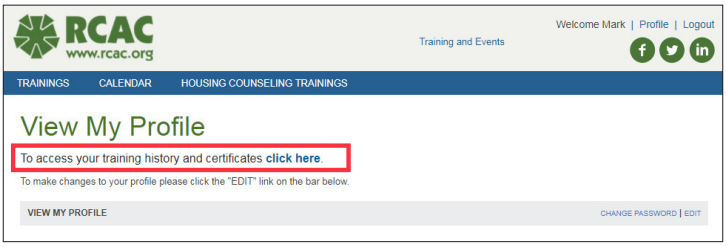


How do I find my certificates online?

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

You can then print your certificates directly from your browser.

If you are unable to access your records through your account for any reason, please phone our staff at (916) 447-9832 ext. 1429 or email *registration@rcac.org*. Certificates for all trainings may NOT be available. Contact *registration@rcac.org* if you cannot locate your training certificate online.



Jan–June 2021 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.

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

Please register me for the following workshop(s):

Online Workshops (one-part)

01/06/2021	☐ 10 a.m. or	☐ 2 p.m.	Pathogens in Drinking Water
01/13/2021	☐ 10 a.m. or	☐ 2 p.m.	Water Quality Sampling
01/20/2021	☐ 10 a.m.		Budgeting for Small Water Systems
01/20/2021	☐ 2 p.m.		Customer Communications & Transparency
01/21/2021	☐ 10 a.m. or	☐ 2 p.m.	Surface Water Treatment Rule
01/26/2021	☐ 6 p.m.		AB54 & AB240
02/09/2021	☐ 10 a.m.		Using MHI Data for Water System Management
02/09/2021	☐ 2 p.m.		Capacity Building Through Partnerships
02/10/2021	☐ 10 a.m. or	☐ 2 p.m.	Pumps, Motors & Energy Efficiency
02/16/2021	☐ 10 a.m. or	☐ 2 p.m.	Completing the Electronic Annual Report
02/17/2021	☐ 10 a.m. or	☐ 2 p.m.	Understanding Bacteriological Quality Standards
02/18/2021	☐ 10 a.m. or	☐ 2 p.m.	Water Distribution Math Techniques
03/02/2021	☐ 10 a.m. or	☐ 2 p.m.	Recruitment & Retention
03/16/2021	☐ 10 a.m. or	☐ 2 p.m.	Operations Plans
03/17/2021	☐ 10 a.m.		AB54 & AB240
03/30/2021	☐ 10 a.m. or	☐ 2 p.m.	Compliance Monitoring & Reporting
04/13/2021	☐ 10 a.m. or	☐ 2 p.m.	Rate Setting for Small Water Systems
04/14/2021	☐ 10 a.m. or	☐ 2 p.m.	Cross Connection Controls
05/04/2021	☐ 6 p.m.		AB54 & AB240
05/06/2021	☐ 10 a.m. or	☐ 2 p.m.	Go Small and Go Home
05/25/2021	☐ 10 a.m. or	☐ 2 p.m.	Operating During Public Safety Power Shut-off
05/26/2021	☐ 10 a.m. or	☐ 2 p.m.	Consumer Confidence Reporting Compliance
06/02/2021	☐ 10 a.m.		Beat the Cyanobacterial Blues
06/02/2021	☐ 2 p.m.		Water System Basic Operations
06/03/2021	☐ 10 a.m. or	☐ 2 p.m.	Hydrant Installation
06/15/2021	☐ 10 a.m. or	☐ 2 p.m.	Groundwater Wells with Iron
06/16/2021	☐ 10 a.m.		Arsenic Rule Compliance
06/16/2021	☐ 2 p.m.		Dealing with Nitrates Contamination

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

Online Workshops (two-part)

01/05/2021	☐ 10 a.m. & 2 p.m.	Asset Series: Capital Improvement Plans & Google…
01/12/2021	☐ 10 a.m. & 2 p.m.	Once More into the Bleach
01/26/2021	☐ 10 a.m. & 2 p.m.	Budgeting Analysis & Rate Setting
01/27/2021	☐ 10 a.m. & 2 p.m.	Distribution System Operation & Maintenance
02/02/2021	☐ 10 a.m. & 2 p.m.	Operations Maintenance Series: Maintaining Water…
02/03/2021	☐ 10 a.m. & 2 p.m.	Resiliency & Vulnerability Planning
02/23/2021	☐ 10 a.m. & 2 p.m.	Drought Contingency Planning and Water Loss
02/24/2021	☐ 10 a.m. & 2 p.m.	Asset Management & Capital Improvement Planning
03/03/2021	☐ 10 a.m. & 2 p.m.	Pumps & Motors Troubleshooting
03/09/2021	☐ 10 a.m. & 2 p.m.	The Building Blocks of Successful Construction …
03/10/2021	☐ 10 a.m. & 2 p.m.	No Bad Bugs: Protecting Your System from …
03/17/2021	☐ 10 a.m. & 2 p.m.	Financial Policies & Procedures
03/31/2021	☐ 10 a.m. & 2 p.m.	Groundwater Treatment Techniques
04/01/2021	☐ 10 a.m. & 2 p.m.	Developing and Keeping Utility Personnel
04/15/2021	☐ 10 a.m. & 2 p.m.	Navigating Public Meetings Virtually
04/27/2021	☐ 10 a.m. & 2 p.m.	How to Prepare for Sanitary Surveys
04/28/2021	☐ 10 a.m. & 2 p.m.	Basic Electrical Concepts
05/11/2021	☐ 10 a.m. & 2 p.m.	Water Operators & the Capital Improvement Plan
05/12/2021	☐ 10 a.m. & 2 p.m.	Budgeting Analysis & Rate Setting
05/13/2021	☐ 10 a.m. & 2 p.m.	Revised Total Coliform Rule & Level 1 Assessment
05/27/2021	☐ 10 a.m. & 2 p.m.	Source Water Protection
06/08/2021	☐ 10 a.m. & 2 p.m.	Financial Management & Accounting with QuickBooks
06/09/2021	☐ 10 a.m. & 2 p.m.	Building Your Google Earth GIS Model & Map

Classroom Workshops

☐	04/06/2021	Disinfection Byproducts Rule	(Atascadero)
☐	04/07/2021	Distribution System Essentials	(Atascadero)
☐	04/20/2021	Distribution System Repair and Installation Procedures	(Sacramento Area)
☐	04/21/2021	Asset Management & Capital Improvement Planning …	(Sacramento Area)
☐	05/04/2021	Capital Improvement Project Planning	(Fortuna)
☐	05/05/2021	Utility Bookkeeping 101	(Fortuna)
☐	05/12/2021	Emergency and Disaster Response Planning	(El Centro)
☐	05/13/2021	Protecting Your System: Financial Safeguards	(El Centro)
☐	05/20/2021	CalTAP Fair	(Napa)

RCAC
www.rcac.org
3120 Freeboard Drive, Suite 201
West Sacramento, CA 95691
RCAC is the Western RCAP

Nonprofit Org.
US Postage
PAID
Permit No. 2418
Sacramento, CA