

# Nevada Drinking Water Workshops

August 2024–June 2025



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**

**Presented by:**  
Rural Community Assistance Corporation  
**Funded by:**  
Nevada Division of Environmental Protection

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# Nevada Drinking Water Workshops

**August 2024–June 2025**

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.

Long-term viability includes additional capacity development in the following areas:

## **Technical:**

- Regulatory compliance
- Operator training and testing
- Operations and maintenance
- Sampling, water quality testing, and troubleshooting
- System mapping

## **Managerial:**

- Management/board training
- Human resource management
- Consolidation/collaboration/water rights management
- Security and vulnerability response

## **Financial:**

- Budgeting and rate setting
- Asset management
- Capital project planning
- Financial management

## Registration

**For the fastest registration and most current information, please visit:**  
<https://www.events.rcac.org/rcac/Nevada.asp>

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

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

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

## Training Information

### Contact hours & certificates:

Each classroom workshop qualifies for six (6) drinking water contact hours. Each online workshop qualifies for two (2) drinking water contact hours besides the August 27 workshop, which qualifies for three (3). Certificates will be made available online through our registration portal and attendees will be notified via email when certificates are available.

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 Bureau of Safe Drinking Water 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.

### 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.

### Online workshops

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

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

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

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

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

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

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

### How do I find my certificates online?

You can now access your contact hour certificates online. 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](mailto:registration@rcac.org).

Certificates for all trainings may NOT be available. Contact [registration@rcac.org](mailto:registration@rcac.org) if you cannot locate your training certificate online.

### 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.





# 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.

*Times listed are Pacific Time.*

## Registration

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

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

Attendees do not need to participate from their own computer/device for the online trainings, but will need to complete an evaluation to receive credit. Your group leader will need to inform RCAC ([registration@rcac.org](mailto:registration@rcac.org)) of attendees who will be viewing sessions as a group prior to session start.

## 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

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

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

## Cancellation

Please notify RCAC as soon as possible if you cannot attend a session that you have registered for, as we have an attendee limit for online workshops. Please cancel a minimum of 48 hours in advance to allow others to attend the training.

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

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

## Essentials of Nevada SRF Application & Federal Financing

**August 27, 2024 • 9:00 am–12:00 pm**

The purpose of this training is to assist rural water systems in how to complete Nevada SRF applications through the multiple stage process, including applying to be on the Priority List, developing a Letter of Intent and submitting a complete application. This class is designed to help small systems, from volunteer board members to operators, with multiple responsibilities to successfully develop Nevada SRF applications.

Participants will learn to:

- Develop a greater understanding of what is required to prepare and submit a complete application.
- Become more financially and managerially successful due to adequate funding.

This learning event is designed for the new board members, operators, and potential operators of small water systems involved in the preparation of Nevada SRF applications.

## Treatment Operator Exam Prep 3-Part Series

**Series 1: September 4, 18, & 25, 2024 • 10:00 am–12:00 pm**

**Series 2: May 14, 21 & June 4, 2025 • 10:00 am–12:00 pm**

The operator exam is coming, and you want to increase your chances of passing. This three-part series spans three weeks and is designed to present knowledge and help you identify areas where you may need additional study or help. Each week we will focus on different aspects of the Treatment Grades 1 & 2 exams. You will identify areas for further study and build on them in subsequent weeks. Participation in all three sessions is highly encouraged.

Participants will learn:

- Treatment system overview
- Treatment equipment
- Minimal basic math
- Testing tips and tricks
- Filtration
- Repairing components
- Chemicals
- Lab samples
- Safety

This class is geared towards individuals preparing to take the Treatment Operator Level 1 or 2 exam.

## Distribution Operator Exam Prep 3-Part Series

**Series 1: September 4, 18 & 25, 2024 • 1:00–3:00 pm**

**Series 2: May 14, 21 & June 4, 2025 • 1:00–3:00 pm**

The operator exam is coming, and you want to increase your chances of passing. This three-part series spans three weeks and is designed to present knowledge and help you identify areas where you may need additional study or help. Each week we will focus on different aspects of the Distribution Grades 1 and 2 exams. You will identify areas for further study and build on them in subsequent weeks. Participation in all three sessions is highly encouraged.

Participants will learn:

- Distribution system overview
- Distribution equipment
- Minimal basic math
- Testing tips and tricks
- Cross connection control basics
- Repairing components
- Chemicals
- Lab samples
- Safety

This class is geared towards individuals preparing to take the Distribution Operator Level 1 or 2 exam.

## Rate Setting for Water Systems

**November 19, 2024 • 10:00 am–12:00 pm**

Many small water systems throughout the state of Nevada are struggling to recover their core costs, and even more are struggling to fully fund the future of the system. The rates our customers pay serve as our primary means of collecting revenue. Affordability, usage reductions, and population changes are affecting small systems across Nevada.

This training will provide attendees with working knowledge and emphasize tools/resources available to understand how to develop an adequate rate structure to meet short-term and long-term financial obligations.

Participants will learn:

- How to figure out if a rate adjustment is necessary
- The four basic types of rate structures
- How to calculate base and flow rates
- To calculate base rates according to meter size

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



## Cyber Security of Small Water Systems

January 14, 2025 • 10:00 am–12:00 pm

Cyber security is an increasing concern for all of us. Taking simple steps in our system can prevent costly and dangerous outcomes. In two hours, we will share common strategies used to reduce the risk to your water system and your community.

Participants will learn:

- How to assess the risk and resilience of the water system to a cyber threat
- Common attack methods hackers use to target water systems
- What security measures can be taken to protect the water system

The recommended audience includes operators, managers, utility staff.

## How Much Does Water Really Cost?

April 30, 2025 • 10:00 am–12:00 pm

Did you know depreciation is a real expense? Do you know how to communicate the true cost of water to your customers, board, or even to your own staff? Today's changing funding dynamics and need to plan for the future are some of the things that are impacting small and medium systems, and their ability to save.

In this online training, operators, managers and staff will learn how to calculate and understand their entire system cost, and how to communicate those costs and benefits to customers.

Participants will learn:

- Why depreciation and/or capital planning is important
- How to calculate the systems actual costs
- Best known methods to communicate costs and benefits to customers.

The recommended audience includes board members, operators, managers, office staff.

## Capacity Development Through Partnerships

June 18, 2025 • 10:00 am–12:00 pm

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

Participants will learn:

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

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





## Operator Math

At a minimum, every public water system regardless of size and complexity requires a certified water distribution operator. The most significant hurdle for many Grade 1 and Grade 2 operators in passing the operator certification exam, however, is the math portion of the test. Typically, the math section of the certification exam constitutes about 35% of the total exam score, so proficiency in math is necessary to pass the test.

The Operator Math learning event will be subdivided into four (4) two-hour online sessions. The four sessions are listed below with content section details for each session. The math included in each session is based on the expected-range-of-knowledge for the ABC distribution D1/D2 exams. The sessions are numbered 101, 102, 201, and 301 after a traditional academic curriculum and to indicate a sequential progression of the content of each session.

Target audience: Those looking to take a treatment or distribution operator exam.

### Operator Math 101: Conversions

**September 10, 2024 • 10:00 AM–12:00 PM and  
May 20, 2025 • 10:00 AM–12:00 PM**

Participants will learn to:

- Convert water units (ft<sup>3</sup> to gallons, gallons to weight)
- Convert distance (in. to ft, ft to meters, ft to mile)
- Convert areas (acres to ft<sup>2</sup>, in<sup>2</sup> to ft<sup>2</sup>, yd<sup>2</sup> to ft<sup>2</sup>)
- Convert volumes (ft<sup>3</sup> to gal, gal to liters, liters to mL)

### Operator Math 102: Area & Volume

**September 12, 2024 • 10:00 AM–12:00 PM and  
May 22, 2025 • 10:00 AM–12:00 PM**

Participants will learn to:

- Calculate area of a circle
- Calculate area of a rectangle
- Calculate volume of a cylinder
- Calculate volume of a rectangular tank

### Operator Math 201: Applied Math Problems

**September 17, 2024 • 10:00 AM–12:00 PM and  
June 3, 2025 • 10:00 AM–12:00 PM**

Participants will learn:

- Pressure and head problems
- Dosage problems (simple no conversions)
- Well calculations (drawdown and specific capacity)
- Flow calculations (gal/min, ft<sup>3</sup>/sec, velocity problems)

### Operator Math 301: Advanced Math Problems

**September 19, 2024 • 10:00 AM–12:00 PM and  
June 5, 2025 • 10:00 AM–12:00 PM**

Participants will learn:

- Pressure and head problems (multi conversion problems)
- Chemical dosage problems (HTH and hypochlorite)
- Pumping problems (horsepower)
- Odds and ends (supply, solution, SCADA, specific gravity)



# 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. (PST) Lunch is one hour (on your own). The April 10 workshop begins at 8:30 a.m. Mountain Time. 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 30 attendees.*

## Asset Management Planning

**October 8, 2024 • Las Vegas/Henderson**

Many systems have limited financial capacity or lack the planning to save for major system upgrades. With asset management planning, the standards for capital planning integrate levels of service, more long-term maintenance and life extending activities. Systems with an asset management plan can strategize for funding availability, as well as maintaining desired levels of service standards.

Participants will learn to:

- Build their asset management team and plan
- Develop level of service standard for their system
- Identify their system components and apply criticality ratings
- Calculate life cycle costs of their assets
- Develop a financial strategy for their asset management plan
- Create, update and maintain their asset management plan

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

## Treatment 101

**October 9, 2024 • Las Vegas/Henderson**

As our water system regulations increase, more and more water systems find themselves in need of water treatment solutions that seem to be ever-changing. In this class we will visit many methods of water treatment and the operations water treatment facilities. We will explore the equipment and the chemicals used as well as the regulatory requirement in the state of Nevada for treatment systems.

Participants will learn:

- The need for treatment
- The equipment used in treatment systems
- The chemicals used
- The process of water treatment
- Maintenance of the system
- Controls
- Safety
- Regulations

The recommended audience includes operators, supervisors and managers.



## Emergency Response Planning & Sanitary Survey Prep

February 4, 2025 • Las Vegas/Henderson

March 12, 2025 • Carson City

May 8, 2025 • Elko

Every day water systems experience emergencies, and it is up to the water system to handle them with the least amount of impact on our customers possible. In this class these emergencies help you develop the tools to avoid them whenever possible and face them with confidence when they cannot be avoided.

The operator must also understand how to effectively plan for these emergencies as well as be prepared for their sanitary survey to ensure your customers have access to safe clean water. This class will help develop an understanding of the emergency response plan and how to prepare for your sanitary survey.

Participants will learn:

- Main breaks
- Intro to disinfection
- Sodium hypochlorite
- Disinfection equipment
- Sodium hypochlorite safety
- Emergency response plans
- Preparing for the sanitary survey

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

## Disinfection and Chemical Feed

February 5, 2025 • Las Vegas/Henderson

Access to safe water is one of the 10 greatest public health achievements worldwide, and the reduction in death and disease from safe drinking water would not be possible without adequate disinfection. In this workshop, learn about the mechanisms used to safely disinfect drinking water with a focus on chlorination. Topics will include types of chlorine, how it works as a disinfectant, safety and handling guidance, and associated monitoring requirements. Additionally, the workshop will review the different methods of chemical feed and how to appropriately dose your water.

Participants will learn:

- Intro to disinfection
- Sodium hypochlorite
- Chlorine
- Other disinfection methods
- Disinfection equipment
- Sodium hypochlorite safety

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

## Arsenic Treatment & Solutions

March 26, 2025 • Eureka

Since the MCL for arsenic was lowered from 50 ppb to 10 ppb in 2001, water systems have been struggling to comply with this more stringent standard. There is no one size fits all treatment technology that is appropriate for every water system, so finding the most effective path to compliance with the Arsenic Rule can be a complicated process that needs to take into account many factors like water chemistry, operator skill, and waste disposal options. This learning event is intended to provide small water systems with a “roadmap” to Arsenic Rule compliance. We will begin with reviewing 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.

## Storage & Distribution

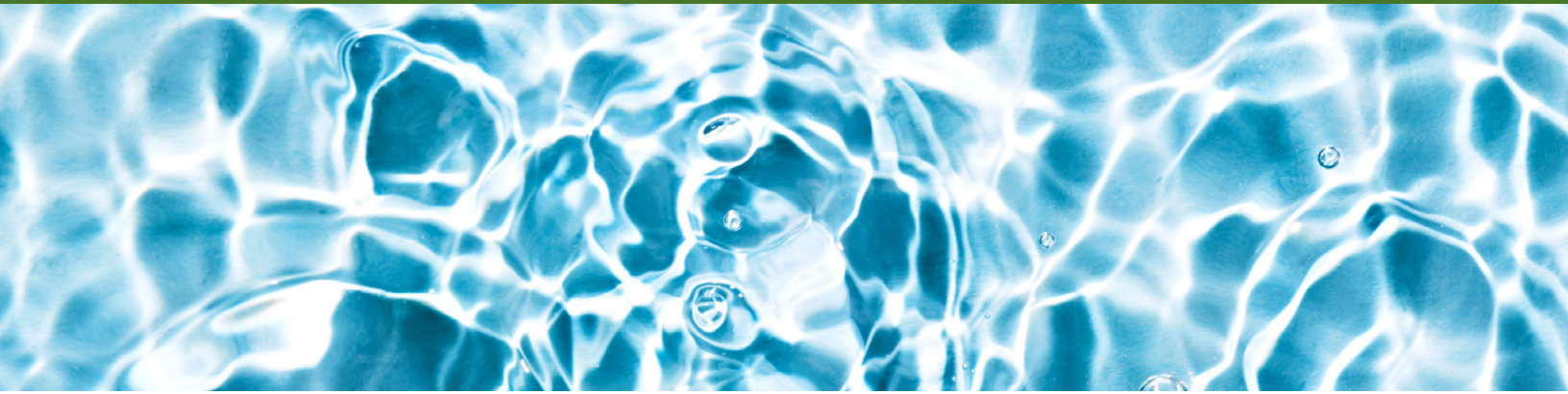
April 8, 2025 • Ely

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

Participants will learn:

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

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



## Cross Connection Controls

April 10, 2025 • West Wendover

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 learning event is intended to introduce the basic concepts of running a small water system efficiently and effectively.

Participants will learn:

- Definitions related to cross-connection control
- Why backflow prevention is necessary
- Methods of backflow prevention
- Basic inspection procedures
- How to prevent backflow events
- How to implement a cross connection control program
- Main breaks
- Preventing backflow events

The recommended audience includes operators, managers and board members.

## Dealing with Your Unknown Connections

May 6, 2025 • Winnemucca

You've had a Lead Service Line Inventory completed, but it's incomplete – there's unknown connections. There's no documentation to determine the material of the connections, so now what? To determine your next steps, we'll review how to develop an investigation including reviewing installation dates, material of nearby non-lead lines, and pipe diameter.

Depending on your level of unknowns, we'll discuss how you can create a strategy to sub-sample unknown connections, communicate with your community, and produce a service replacement plan. Together we'll learn what works for other systems and how to apply it to yours.

Participants will learn to:

- Understand state and federal requirements for LSLI
- Identify Lead and Non-Lead Service Lines
- Identify predictive modeling and statistical methods to determine if service lines are lead

The recommended audience includes administrative personnel, operators, and potential operators of small water systems involved in the day-to-day operations.

## Registration

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

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

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

## Workshops At-a-Glance

Date	Workshop	Location	Start Time	Duration
08/27	Essentials of Nevada SRF Applications & Federal Financing	Online	9:00 am	3 hours
09/04	Treatment Operator Exam Prep Series Part 1 of 3	Online	10:00 am	2 hours
09/04	Distribution Operator Exam Prep Series Part 1 of 3	Online	1:00 pm	2 hours
09/10	Operator Math 101: Conversions	Online	10:00 am	2 hours
09/12	Operator Math 102: Area & Volume	Online	10:00 am	2 hours
09/17	Operator Math 201: Applied Math Problems	Online	10:00 am	2 hours
09/18	Treatment Operator Exam Prep Series Part 2 of 3	Online	10:00 am	2 hours
09/18	Distribution Operator Exam Prep Series Part 2 of 3	Online	1:00 pm	2 hours
09/19	Operator Math 301: Advanced Math Problems	Online	10:00 am	2 hours
09/25	Treatment Operator Exam Prep Series Part 3 of 3	Online	10:00 am	2 hours
09/25	Distribution Operator Exam Prep Series Part 3 of 3	Online	1:00 pm	2 hours
10/08	Asset Management Planning	Las Vegas/Henderson	8:30 am	6 hours
10/09	Treatment 101	Las Vegas/Henderson	8:30 am	6 hours
11/19	Rate Setting for Water Systems	Online	10:00 am	2 hours
01/14	Cyber Security for Small Water Systems	Online	10:00 am	2 hours
02/04	Emergency Response Planning & Sanitary Survey Prep	Las Vegas/Henderson	8:30 am	6 hours
02/05	Disinfection and Chemical Feed	Las Vegas/Henderson	8:30 am	6 hours
03/12	Emergency Response Planning & Sanitary Survey Prep	Carson City	8:30 am	6 hours
03/26	Arsenic Treatment & Solutions	Eureka & Plant Tour	8:30 am	6 hours
04/08	Storage & Distribution	Ely	8:30 am	6 hours
04/10	Cross Connection Control	West Wendover	7:30 am	6 hours
04/30	How Much Does Water Really Cost?	Online	10:00 am	2 hours
05/06	Dealing with Your Unknown Connections	Winnemucca	8:30 am	6 hours
05/08	Emergency Response Planning & Sanitary Survey Prep	Elko	8:30 am	6 hours
05/14	Treatment Operator Exam Prep Series Part 1 of 3	Online	10:00 am	2 hours
05/14	Distribution Operator Exam Prep Series Part 1 of 3	Online	1:00 pm	2 hours
05/20	Operator Math 101: Conversions	Online	10:00 am	2 hours
05/21	Treatment Operator Exam Prep Series Part 2 of 3	Online	10:00 am	2 hours
05/21	Distribution Operator Exam Prep Series Part 2 of 3	Online	1:00 pm	2 hours
05/22	Operator Math 102: Area & Volume	Online	10:00 am	2 hours
06/03	Operator Math 201: Applied Math Problems	Online	10:00 am	2 hours
06/04	Treatment Operator Exam Prep Series Part 3 of 3	Online	10:00 am	2 hours
06/04	Distribution Operator Exam Prep Series Part 3 of 3	Online	1:00 pm	2 hours
06/05	Operator Math 301: Advanced Math Problems	Online	10:00 am	2 hours
06/18	Capacity Development Through Partnerships	Online	10:00 am	2 hours





3120 Freeboard Drive, Suite 201  
West Sacramento, CA 95691

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