



## RCAP/AWWA Workshop

No Bad Bugs: Protecting Your Water System from Microbial Contaminants

**This is a FREE Workshop for Small Public Water Systems and Community and Non-Community Water Systems serving a population of fewer than 10,000.**

Your water system can easily and effectively spread waterborne diseases such as cholera, typhoid and E. coli. The Centers for Disease Control and Prevention documents over 22 waterborne disease outbreaks annually in U.S. public water supplies. These outbreaks cause over 10,000 cases of illness. Protecting your water system from these microbial contaminants is a fundamental goal of every water system.

In this workshop, we will trace a water system operator's battle with bad bugs, from Dr. Snow removing the handle on the Broad Street Pump in London to stop the 1854 cholera epidemic, to modern sanitary surveys and disinfection methods. The goal of this workshop is to make water system operators aware of the pathways of microbial contamination and to provide low-cost strategies to prevent contamination of their systems.

Through a series of hands-on exercises, participants will learn:

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

### **Objective:**

Participants at this workshop will:

- Identify the five most common pathways of microbial contamination into a water system.
  - (table group brainstorm / PowerPoint)



- Learn/review the “most important things to look for” when conducting a sanitary survey of well station and/or water tank.
- Learn/review proper total coliform sampling technique.
- Learn/review proper chlorine residual monitoring technique.
- Learn how to use the customer complaint log to identify water quality problems.
- Learn how to properly disinfect tanks/mains/wells using AWWA standards.
- Learn about the microorganisms important to water supplies.

**Class Date:** December 4, 2018

**Location:** California-Nevada Section, AWWA  
Frontier Project, First Floor  
10435 Ashford Street  
Rancho Cucamonga, CA 91730

**Instructor:**

**Jim McVeigh**, a drinking water specialist with RCAC, has more than 40 years of experience in water utilities operation and management. He holds certification as a Grade 5 California water treatment operator and Grade 4 California water distribution operator. Jim has a bachelor’s degree in chemistry and biology and a master’s in organizational management. He has extensive knowledge of drinking water-quality issues and has been an environmental trainer for nearly 20 years.

**Class Time:** 8:30am – 4:30 pm

**This workshop is eligible  
for up to 7.0 contact hours.**



American Water Works Association



## Registration Form

Rancho Cucamonga – December 4, 2018

**This is a FREE Workshop for Small Public Water Systems, Community and Non-Community Water Systems serving a population of 10,000 persons or fewer only.**

Attendee Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Attendee Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Cell Phone: \_\_\_\_\_ Home Phone: \_\_\_\_\_

Attendee E-mail: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Company Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Population served by system	<input type="checkbox"/> 0-500
	<input type="checkbox"/> 501-3,300
	<input type="checkbox"/> 3,301-10,000
Water Operator License #	
Public Water System Identification #	
AWWA Customer ID #	
How did you hear about this training?	

**To register or cancel your registration at any time, please contact Shobhana at 909.291.2117.**

Please fill out this form completely and mail to:

**CA-NV Section AWWA  
10435 Ashford St., 2nd Floor  
Rancho Cucamonga, CA 91730**

Or you can fax it to (909) 291-2107 (secure fax line). Or email it to [schickarmane@ca-nv-awwa.org](mailto:schickarmane@ca-nv-awwa.org).

### CONTACT HOURS

All Contact Hours are emailed. In order to receive your Contact Hours, you must include your email address on this form. For attendance verification you must sign in and out. You must be in attendance for the full time in order to be awarded full credit. If your attendance cannot be verified you will not be issued Contact Hours. The Contact Hours advertised by the CA-NV AWWA are only an estimate, final hours are determined upon an audit of your record. It can take up to 30 days to process and issue your Contact Hour certificates.



American Water Works Association  
**California-Nevada** Section