



# ODW Now

MARCH 2023

## Highlights

### Focused Features

Engineering Services Updates  
Lead Service Line Inventory Loans  
Secure Your Drone!  
Reliable Repeats: From the Archives  
New and Revised Publications  
Rulemaking Activities

## Notable Dates

March 22: [World Water Day](#)  
March 23 & April 4: [DWSRF Webinars](#)  
April 25: Update WFI for TNC & NTNC  
May 7-13: [Drinking Water Week](#)  
June 6: [Next DWAG Meeting](#)

## Connections

[The Office of Drinking Water Newsletter](#)  
[SIGN UP](#) to get this in your inbox!  
[Find Your Regional Offices and Staff](#)  
[Drinking Water Home Page](#)

## Engineering and Technical Services Update

Hello, my name is Jeff Johnson, and I am now supervisor of ODW's Engineering and Technical Services (ETS) section at headquarters (as of December 2022). I am still based in Spokane Valley, where I worked for many years as an engineer in the ODW Eastern Regional Office. I am very excited to be a part of the ETS team along with Nancy Feagin and Steve Deem! We help ODW stay ahead of the curve by keeping up to date on the latest science and trends related to health and public water systems.



We participate in a variety of regional and national committees, present at conferences, create technical publications, and provide training to ODW staff. We help support ODW staff when unusual water quality, treatment, or other issues crop up. We provide advice and analysis on technical issues related to policy development.

Examples of recent or current ETS projects include:

- ◆ Leading the effort to assess and respond to the recent harmful algal bloom conditions in the Columbia River in the vicinity of the cities of Pasco, Kennewick, and Richland, all of which use the Columbia River as a drinking water source.
- ◆ Providing training to water system operators on the chemistry of chlorine as a disinfectant and the proper way to measure free chlorine residual using field test kits.
- ◆ Assisting staff from our Northwest Region conduct a study of a membrane filtration plant to verify that it is performing properly. ◆

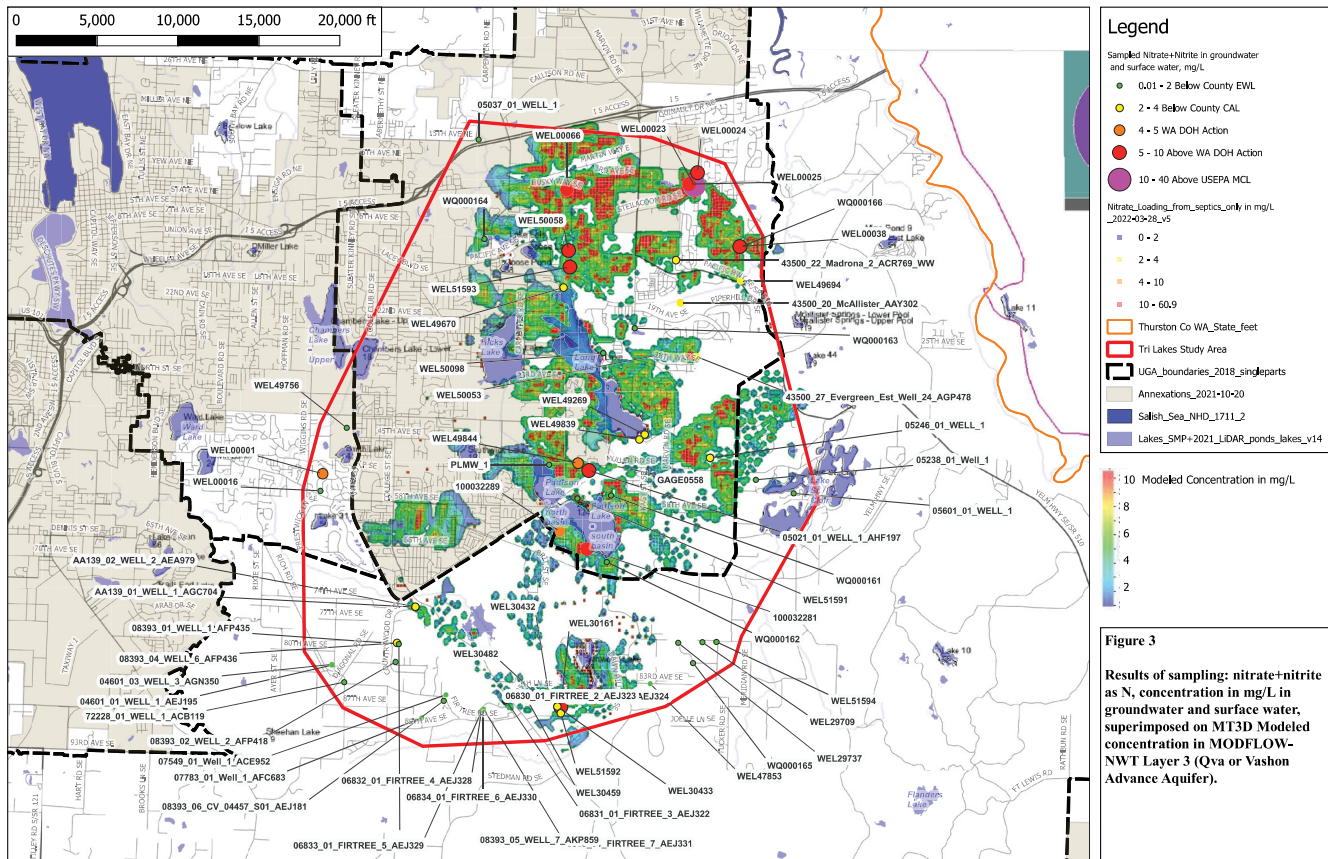
## Source Water Protection Grant Funds Study

### ON-SITE SEPTIC SYSTEM IMPACTS TO GROUNDWATER

Thurston County is finalizing results of a recent study of water quality impacts from on-site septic systems in the Tri Lakes area. They are using grant funding from our [Source Water Protection program](#). Tri Lakes is comprised of the area near Long, Pattison, and Hicks Lakes in northern Thurston County. The region saw rapid post-World War II growth peaking in the 1980s. Most of the growth depended on individual on-site septic systems. The systems now have a median age above 40 years. More than 50,000 septic systems were installed countywide, with over 5,000 installed in the Tri Lakes area.

The study made use of two long-term efforts by the Thurston County to increase understanding of groundwater quality impacts from densely





**Figure 3**  
Results of sampling: nitrate+nitrite as N, concentration in mg/L in groundwater and surface water, superimposed on MODFLOW-NWT Layer 3 (Qva or Vashon Advance Aquifer).

clustered septic systems. The identification by type and location of these septic systems, many installed prior to modern regulations, has been a county priority since 2000. The county finished a groundwater flow and transport model to predict some aspects of the potential extent of septic-related wastewater impacts.

To assess the impacts of these systems, between March and October 2022, fifty-eight water wells were sampled in the Tri-Lakes area for total coliform, *E. coli* bacteria and nitrate-nitrogen as well as a screening for Chemicals of Emerging Concern (CECs). The groundwater flow and transport predictive modeling was used to assist in the selection of sampling locations.

Results from the study indicate that septic-related wastewater has affected groundwater

quality, and that new consumer products are detectable in groundwater samples. Kevin Hansen, LHg, LG, LEED AP, Thurston County Hydrogeologist, will present at several Northwest regional conferences. He will highlight the ongoing efforts to understand these impacts to drinking water sources. The study will help the county target outreach and policy coordination efforts around water quality protection.

We receive funding from EPA to support planning, modeling, monitoring efforts that protect sources of drinking water for Group A water systems. Grants are awarded on a rolling basis, year-round until funds run out and there is no match required. For more information on how to protect your sources of drinking water, visit our [Source Water Protection website](#). 💧

## Secure your Drone

Do you inspect your water towers or reservoirs with a drone? Then you need to read this! The Cybersecurity and Infrastructure Security Agency (CISA) provides a guidance resource for drone users to protect their data and privacy before, during, and after flying their drone.

This guidance provides additional resources to augment an organization's preparedness, response, and resilience. [Download the PDF](#) or go to [Secure Your Drone: Privacy and Data Protection Guidance | CISA](#). 💧



# World Water Day March 22

Every March 22, the United Nations observes [World Water Day](#) to raise awareness and inspire action to protect the earth's water resources. This year's theme is about accelerating change to solve the water and wastewater crises. Water affects us all, each day, in many ways we don't think about.

Everyone can do something to alleviate the stress on our drinking water systems. Many small acts combine to make a big change. You, your family, school, and community can make a difference by changing the way you think about and use water in your everyday lives. Here are some ideas to get started:

- ◆ **Save water.** Take shorter showers. Don't let the tap run while brushing your teeth, doing dishes, cleaning, or preparing food.
- ◆ **Be curious.** Find out where your water comes from and how it is shared with your community. Visit a treatment plant to see how your drinking water is treated, filtered, and distributed.
- ◆ **Protect nature.** Plant a tree or create a rain garden. Use natural solutions to reduce the risk of flooding.
- ◆ **Keep water in your pipes.** Fix leaky water pipes, toilets, and faucets. You could save hundreds of gallons a year by fixing leaks.
- ◆ **Flush safe.** Don't put food waste, oils, medicines and chemicals down your toilet or drains.
- ◆ **Clean up.** Take part in clean-ups of your local rivers, lakes, wetlands, or beaches.

The next time you turn on your faucet, think about where the water comes from, how it gets to you, and what can you do to protect it. Not everyone has the same access most of us have to safe, clean water



from a convenient tap. There are communities here in Washington that struggle with keeping their drinking water infrastructure updated. Low-income communities face financial challenges if their water pump goes out or the water main breaks. Other communities can't use their water due to contaminants such as [PFAS](#) or [nitrates](#).

To address some of these challenges, the Office of Drinking Water actively supports our communities' drinking water systems. This can include preparing for climate change and severe weather events, protecting water resources, maintaining and replacing aging infrastructure, and economic development for struggling communities. Our [Drinking Water State Revolving Fund program](#) offers low to no interest loans. They prioritize loans based on the public health risk addressed by a proposed project. You can read about some of our local communities' successful projects on our [StoryMap webpage](#). ◆

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## DWSRF Updates from the First 2023 DWAG Meeting

Monday, March 6, we held our first [Drinking Water Advisory Group](#) (DWAG) meeting of 2023. Topics discussed included funding information available through our [Drinking Water State Revolving Fund](#) program. Jocelyne Gray, DWSRF Engineer, highlighted two aspects of DWSRF funding:

- ◆ General DWSRF Funding.
- ◆ Lead Service Lines Loans.

The [DWSRF Funding presentation](#) gives an overview of the DWSRF funding and then explains steps for water systems to take to be eligible for construction funding. The previous Preconstruction loan is now

named the Planning and Engineering loan. The presentation outlines the preparation process or how to be successful, eligibility, financial viability, contact information, and more.

The [Lead Service Line Inventory Loan presentation](#) outlines the monies available, eligibility requirements and deadlines, lead service line replacements, the focus on disadvantaged communities, and information on two upcoming webinars (listed on the [DWSRF home page](#)) to help you understand the funding available. You'll also find new publications and a link to our [Rulemaking webpage](#). ◆

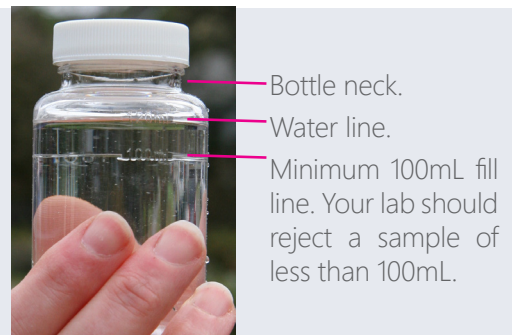
# Reliable Repeats: H<sub>2</sub>Ops Fall 2018

## THE BIG REVEAL: WHAT HAPPENS TO YOUR WATER SAMPLE AT THE LAB?

You may be familiar with labs and water sample analyses for analytes like chlorine, pH, and turbidity. But what happens to the water samples you drop off at a certified public laboratory? This article unravels the mystery behind the certified public laboratory.

It all starts with water system personnel. You are the front line of defense in supplying your customers with safe and reliable drinking water. We collaborate with you in this effort by supplying you with helpful compliance tools like your Water Quality Monitoring Schedule (WQMS). Your WQMS provides a schedule of water sampling criteria for each of your water sources, lets you know what type of samples to collect, and sets a timeframe for collecting them.

Coliform is the most common sample a water system will take. "Coliform" is a broad drinking water term used to capture total coliforms, fecal coliforms, and *E. coli*. In



most labs, it all starts with a simple 125mL sampling bottle. Who knew such a tiny bottle could play such a large part in your water

system's monitoring compliance?

You follow your WQMS. You collect your prescribed coliform sample using acceptable procedures for the sampling and the location of the sample. Then you deliver it to the lab. Now what? Your lab has many

options. They can leave your sample in the bottle you delivered it in and run a presence/absence test, they can run your sample through a filter with microscopic holes in it and grow a culture, or they can grow your sample in various test tubes. Each test has advantages and disadvantages, but all are acceptable for different monitoring requirements.

The biggest disadvantage for any of these testing methods is time; the time it takes to prepare the analyses and, most importantly, the time it takes to report out validated results. Because coliforms are acute contaminants, time is of the essence.



## Water Systems: Take These Easy Steps to Make Coliform Sampling Successful for You and Your Lab.

- ◆ Give the lab at least 100mL of sample.
- ◆ If there is a liquid or powder inside your sampling bottle, don't rinse it out! It's there to preserve the sample.
- ◆ Follow [How to Complete a Coliform Lab Slip 331-247 \(PDF\)](#) when filling out your lab slips.
- ◆ Mark only one box (from box 1-5) for the purpose of the sample.
- ◆ If you mark box 3 or 4, please include a source number.
- ◆ Have clear and concise handwriting.
- ◆ Take your samples early in the compliance period to allow time for incidentals.
- ◆ When in doubt, call your regional coliform program manager or contact your lab before sampling. ◆

### Test Tube Method

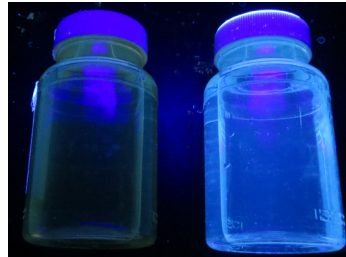


Positive Brilliant Green Test

### Presence/Absence Method



Total Coliform Positive



Total Coliform Positive, *E. coli* Negative  
Total Coliform Positive AND *E. coli*

### Filter Method



Total Coliform

Fecal Coliform

# New and Revised Publications and Forms

Every other month we send out a list of our new and revised publications. You can [subscribe to receive these emails](#). Listed below are new and updated publications and forms from January 1 through February 28, 2023. We send out this news approximately every other month.

## NEW PUBLICATIONS AND FORMS

- ◆ [Washington's Water System Capacity Development Strategy 331-703](#). Washington's water system capacity development strategy annual report to EPA.
- ◆ [Lead Service Line Inventory Guidance 331-711](#). Helps water systems comply with the service line inventory requirements of the 1/15/21 LCRR. Provides information needed for water systems to document their methods and organize their inventory.
- ◆ [Lead Service Line Inventory Frequently Asked Questions 331-712](#). These FAQs help water systems comply with the service line inventory requirements of EPA's Lead and Copper Rule Revisions (LCRR).
- ◆ [PFAS Point-of-Use Filter Options 331-713](#). Tables of NSF certified Point-of-Use filters to reduce PFAS in drinking water in homes.
- ◆ [Drinking Water State Revolving Fund Program 2023 Lead Service Line Loan Guidelines 331-714](#). These guidelines define the application requirements and review process for the 2023 DWSRF Lead Service Line (LSL) Loan Program. The LSL Loan Program provides low-interest loans to publicly owned (municipal) and privately owned drinking water systems in Washington State.

- ◆ [2023 Drinking Water State Revolving Fund Lead Service Line Loan Overview 331-715](#). This two-page fact sheet provides guidance for Lead Service Line (LSL) DWSRF loans.
- ◆ [DWSRF Lead Service Line Loan Worksheet 331-716](#). Worksheet form for DWSRF lead service line loans.

## REVISED/UPDATED PUBLICATIONS AND FORMS

- ◆ [Cross-Connection Control Rules And Definitions 331-355](#). Fourteen pages of extracts from WAC 246-290, Group A Public Water Supplies.
- ◆ [Water Main Break Response Protocol for Chlorinated Water Systems 331-583](#). A four-page publication that explains what to do if you have a water main break.
- ◆ [Acceptable Membrane Filters 331-617](#). Two pages list acceptable membrane filters for surface water systems.
- ◆ [Accredited Labs that Test Public Drinking Water samples for PFAS 331-700](#). List of labs accredited by the Washington State Department of Ecology and use EPA methods 533 and 537.
- ◆ [Laboratorios acreditados que analizan muestras de agua potable para detectar PFAS 331-700-S](#). Spanish list of labs accredited by the Washington State Department of Ecology and use EPA methods 533 and 537. ◆

*Note: We review all DOH-ODW publications annually in compliance with RCW 40.07 to ensure that they are up-to-date and relevant. Not all reviewed publications need revision and are not listed here.*

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# Lead Service Line Rulemaking Activities

Emergency rules adopted—WAC 246-296 Washington State Drinking Water Revolving Fund.

The Department of Health adopted emergency rules to preserve public health, safety, or general welfare (RCW 34.05.350).

On February 28, 2023, we adopted emergency rules allowing us to comply with Environmental Protection Agency (EPA) tools that help us identify disadvantaged communities. The rule modernizes the calculation for water systems to qualify as a disadvantaged community.

It also removed water system plan requirements for systems seeking a loan to address Lead Service Line (LSL) identification and replacement. The rule allows more water systems to qualify for loans. The rule is effective February 28, 2023, through June 27, 2023. You can read more details on our [Rulemaking Activities webpage](#).

If you'd like to receive rule notices by email, [sign up for our rulemaking email list](#). ◆

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