WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

Washington State Department of Health
Environmental Public Health Division
Office of Drinking Water

Volume 28, #3 - September 2013

Department of Health
Office of Drinking Water
PO Box 47822
Olympia, WA 98504-7822
800-521-0323

http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater.aspx

How customers became owners of Whidbey West Water Association

In December 2010, the owner of the Whidbey West water system notified 176 homeowners in the West Beach area of Whidbey Island that he would terminate operation and maintenance of their water system in one year.

The notice included an offer to sell the system to his customers for $1.

Whidbey West Water Association members, from left: Jerry Pitsch, Vera Pitsch, Gary Schnee (board president) and Stan Stanley (board treasurer).

Soon after receiving the notice, residents Jerry and Vera Pitsch started a neighborhood organization to consider the offer and all its implications. While they liked the idea of controlling their own water destiny, they were skeptical, said Gary Schnee (pronounced shnay), now president of the Whidbey West Water Association. The offer seemed too good to be true.

(Continued on Page 13)

New rates for sanitary surveys take effect in 2014

The fee structure for sanitary surveys will change in January. Under the new structure, very small noncommunity water systems may pay less and larger systems may pay more.

Sanitary surveys help identify issues that may present a public health threat. The Office of Drinking Water is responsible for completing sanitary surveys of all Group A public water systems every three to five years. That amounts to about 1,000 surveys a year, so we contract with local health jurisdictions and private contractors to help us get them all done.

The fee structure change was required to comply with a State Board of Health rule that says we should base the fee on the actual hours spent on the survey at a rate of $102 per hour.

Currently, we charge a fixed fee to survey water systems serving fewer than 10,000 connections.

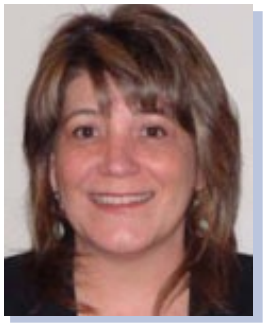
(Continued on Page 14)

Inside This Issue

DOH PUB. #331-200

The Director's Column

by Denise Addotta Clifford



The last time I brought home a C-, I was in trouble…

The 2013 Report Card for Washington's Infrastructure is in, and it isn't pretty.

The report card, compiled by the Seattle Section of the American Society of Civil Engineers (ASCE), concludes that while there are bright spots, infrastructure maintenance is inadequate in Washington and the state lacks planned, guaranteed funding to support it.

Drinking water got a C-. We can do better! Actually, we did do slightly better than the national grade for drinking water infrastructure. ASCE's 2013 Report Card for America's Infrastructure gave drinking water a D. But that's small comfort.

Washington's evaluation team looked at five criteria: Water system capacity and supply, water system condition, funding, operation and maintenance, and public health and safety.

The report card team noted that Washington's letter grade does not tell the story of what's really happening in our state. They correctly point out that a number of small and medium-sized water systems face serious needs.

"In general, the smaller systems have a higher probability of having problems, since they do not have the customer base or financial wherewithal to support regular maintenance and upgrades," the report noted. It also pointed out that many small systems depend on grants and low-interest loans to maintain the integrity of their drinking water because their rate structures are too low. That is not a sustainable way to run a water system.

It goes without saying that many small, medium, and larger water systems in Washington are in great shape. They regularly invest in maintenance, upgrades, staff training, and equipment replacement. EPA's most recent needs assessment places Washington's infrastructure needs at about $9.5 billion.

ASCE made six recommendations for improving the state's drinking water infrastructure:

1. Fully fund the Public Works Assistance Account. (Note: the 2013-15 biennial budget doesn't include funding for the Public Works Assistance Account.)
2. Encourage the federal government to fund the Drinking Water State Revolving Fund (DWSRF). (Note: We expect DWSRF loans to total about $100 million this year.)
3. Encourage smaller water systems that are able to connect to larger systems to do so.
4. Educate drinking water customers that good water requires adequate funding. Some capital funding must be earned through the rate structure.
5. Raise awareness among elected bodies that govern water systems of the need to develop a system to acquire capital reserves for long-term planning once their system is operating well again.
6. Support the Department of Ecology's water rights division to enable jurisdictions to acquire water rights as needed.

These recommendations align nicely with the direction the Office of Drinking Water is taking. We focus on building technical, financial and managerial capacity among smaller water systems, and tools such as consolidation of struggling small water systems.

I don't know about you, but I don't want to settle for a C-. It's going to take all of us working together to move drinking water to its rightful place on the infrastructure honor roll.

Denise A Clifford

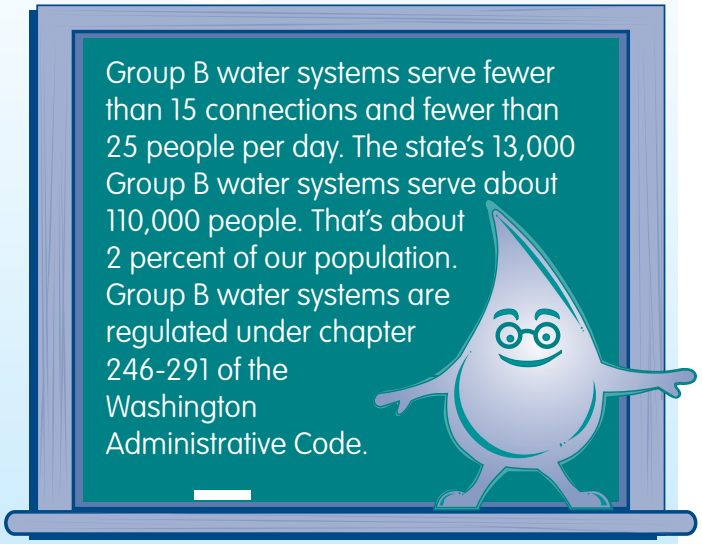
A fond farewell

I am leaving the Office of Drinking Water this month to become government relations director for the Department of Ecology.

Organizations thrive, grow and do even more incredible things when a leader with new vision and fresh perspective joins the team. It is a healthy dynamic, and one that I think organizations could do more to embrace. My leaving sets the stage for someone else to have the fabulous opportunity I've had to lead a creative, passionate team of people in carrying out the essential mission of ensuring safe and reliable drinking water.

It has been an honor and a pleasure to work with all of you.

Group B system designers, applicants: Take note!



Revisions to the state's Group B Rule will take effect January 1, 2014. If you plan to submit an application for approval of a new or expanding Group B system in the next few months, read on.

We will review the design of a new or expanding Group B water system received on or after January 1, 2014, based on the standards in the revised Group B rule. The revised rule reflects a higher standard for design approval.

We will review the design of a new or expanding Group B water system received on or before December 31, 2013, based on the existing rule, even if our review process extends beyond January 1. We will return incomplete submittals received before December 31 to the applicant. You cannot be "vested" under the existing rule if you submit an incomplete submittal.

Consider the timing of your design submittal, and apply the appropriate rule and standards based on your anticipated submittal date.

In addition to creating a higher standard for design approval of new and expanding systems, the revisions to the Group B rule affect nonexpanding existing Group B systems. Visit our Group B resource page to learn more. While you're there, take time to review our new Group B Design Guidelines, Group B Design Workbook, and the resources we've developed for Group B water system applicants, owners, designers, and consumers.

Nominate now for 2014 Drinking Water Week

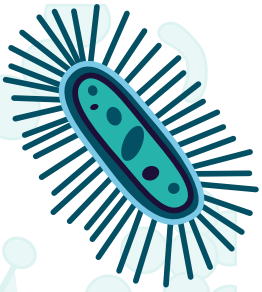
If you know of a water system or waterworks operator who deserves recognition, tell us. We will celebrate safe and reliable drinking water during Drinking Water Week, May 4-10, 2014.

Fill out and submit an online nomination form to tell us why we should honor your nominee. We will accept nominations until February 1, 2014.

Here's the URL for drinking water week http://www.awwa.org/resources-tools/public-affairs/public-affairs-events/drinking-water-week.aspx

And the form https://fortress.wa.gov/doh/opinio/s?s=7391

Publications explain coliform monitoring, the Groundwater Rule and *E. coli* response planning



Chance favors the prepared mind. –Louis Pasteur

All Group A systems must collect samples for coliform bacterial analysis. In addition, the Coliform Rule and the Groundwater Rule require systems to have a plan in place to address *E. coli* if it is detected.

Having a plan can bring success and confidence that you are providing safe and reliable water to your customers.

To help you succeed, we developed ***Preparing a Coliform Monitoring Plan Guidance.*** It comes in three versions, so take a moment to pick the one that's right for you:

1. *Large or multiple-source systems* (331-036)
2. *Systems with one source of supply* (331-240)
3. *Consecutive and wholesale systems* (331-475)

These publications include guidance on triggered source monitoring required by the Groundwater Rule and incorporate the concept of planning for the occurrence of *E. coli* bacteria in your water system.

Each version has instructions on coliform monitoring, templates, checklists, and examples of completed plans.

Groundwater Rule

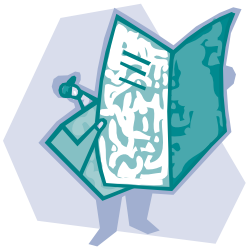
In response to a total coliform-positive routine sample, systems with active groundwater sources must collect source samples. This sampling is called "triggered source monitoring" (TSM). To understand that better, check out the information in your coliform monitoring plan (CMP) publication. If you have multiple groundwater sources, it is possible to reduce your TSM requirement by demonstrating in the CMP that a specific source cannot supply water to a particular routine sample site.

E.coli response

We also included guidance for an *E.coli* response plan. If your system ever gets an *E.coli*-positive sample result, you will want to be prepared! Our checklists will help you understand whether you are prepared and provide specific tasks you can complete to help you respond. By preparing before an event, you can best address it without panic and expensive missteps that upset customers needlessly.

Again, planning is a tool for success. Good coliform monitoring plans will help you get there.

New & Revised Publications



Noncommunity Small Water System Management Program Guide (331-474). New! August 2013. This 53-page guide will help you develop a tailored management program you can use to ensure your water system remains capable of meeting your business and customer needs.

Troubleshooting Bladder Pressure Tanks (331-342). Revised April 2013. This two-page tech tip explains what a bladder tank is, how it works, the functions it serves, and how to troubleshoot problems. Also available in Spanish.

Our publications are online at https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm

Operators, why wait?

Start working on your professional growth requirement now

Beat the stress of trying to find relevant training in your geographical area, BAT exam dates and locations that fill too quickly, and finding dates that fit into already busy schedules.

December 31, 2015, is the new reporting period deadline for operators and BATs certified before January 1, 2013. If you start planning now, you can have your pick of the coursework, exams, training dates, times, and locations. Anyone certified after January 1, 2013, has until December 31, 2018, to meet the requirement.

If your original certification date is	You must meet the professional growth requirement between:
Before 1/1/2010	1/1/2013 and 12/31/2015*
Between 1/1/2010 and 12/31/2012	Your original certification date and 12/31/2015*
Between 1/1/2013 and 12/31/2015	Your original certification date and 12/31/2018*

**and in each three-year reporting period thereafter*

Check Your Status Online

Certified waterworks operators and BATs can check their professional growth status and find detailed information about the professional growth requirement on the Washington Certification Services webpage.

DWSRF loans will finance projects large and small

The state Public Works Board approved 49 water systems throughout the state for low-interest loans from the Drinking Water State Revolving Fund (DWSRF).

The loans range from about $100,000 to $12 million and include an array of projects, such as replacing failing infrastructure and building a large surface water treatment plant. Interest rates are 1 to 1.5 percent.

The Office of Drinking Water used four main criteria to rank applications:

- Projects that address the most serious risk to public health
- Projects necessary to ensure compliance with the Safe Drinking Water Act
- Projects that address current compliance actions or an impending public health threat
- Financial need

To better meet construction season timing needs, we will transition back to a fall loan cycle. This year, we focused on projects that were previously on the Public Works Assistance Account funding list, but went unfunded due to state budget cuts. Our next loan cycle will be the fall of 2014.

For more information about the DWSRF program, visit our website: http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance/DrinkingWaterStateRevolvingFundDWSRF.aspx

Rapid-rate surface water filtration plants keep edge

Results for 2012 are in! Turbidity monitoring data show that our conventional and direct filtration surface water treatment plants continue to perform above regulatory standards—and provide better public health protection.

The filtered water turbidity goals we adopted for these systems are not regulatory. Instead, we encourage systems to achieve water quality by using existing facilities, which provides a larger margin of safety. The performance of rapid-rate filters for turbidity (particle) removal is a key element in protecting consumers from microbial contaminants and maximizing public health.

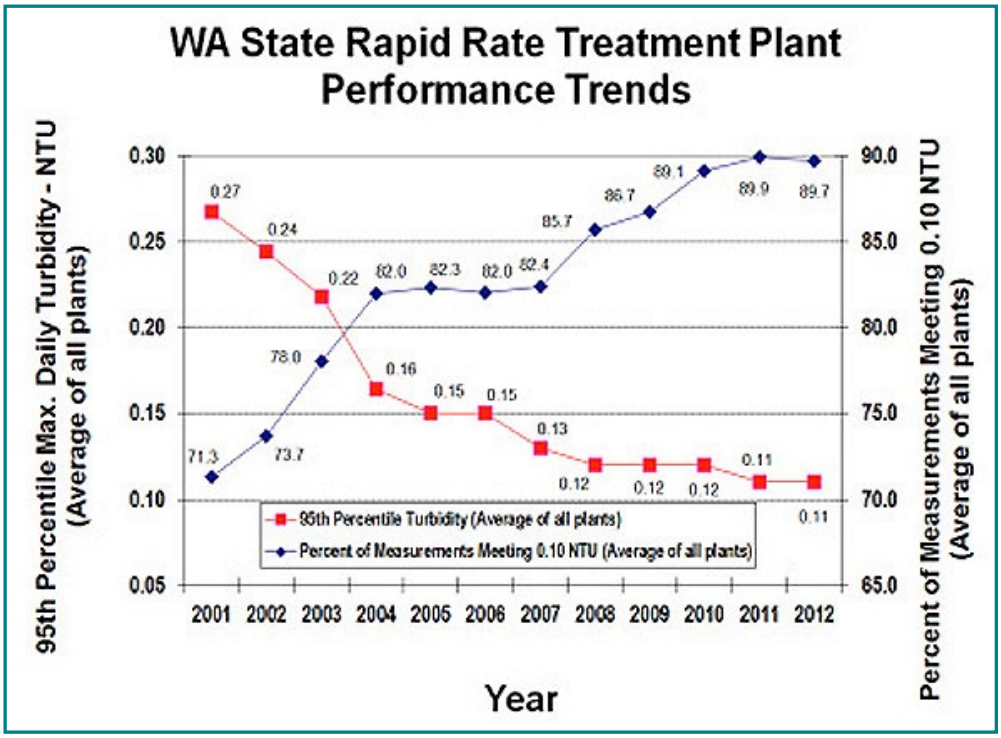
Treatment Optimization Program's (TOP) filtered water turbidity goals:

1. Meet 0.10 nephelometric turbidity units (NTU) or less in 95 percent of the maximum daily combined filter effluent (CFE) measurements taken during the year.
2. Never exceed 0.30 NTU in any CFE measurement.

Other news

At this time, the City of Lynden is constructing a new conventional treatment plant to replace one built in 1926.

The City of Tacoma is constructing its first conventional filtration plant to address treatment requirements of the Long Term 2 Enhanced Surface Water Treatment Rule. This filtration technology has been in use for many years. It appears it will be a preferred method for many years to come.



Turbidity reduction performance by all rapid rate treatment plants in Washington from 2001 through 2012. Data points are the average of all included treatment plants for each year.

For more information

To learn more about TOP and treatment optimization, visit Performance of Rapid Rate Filtration Plants in Washington online.

TOP award winners

The Treatment Optimization Program (TOP) awards bronze, silver, and gold certificates to systems the first time they meet the turbidity goals for 3-, 5-, and 10-consecutive years, respectively. This year, three systems earned silver certificates and two earned bronze certificates. Congratulations! See winners on page 7.

Our award program started in 2009. Since then, 37 water systems have earned awards for excellent treatment performance. Besides meeting the goals, the award winners had to remain free of any drinking water violations during the evaluation period.

Dale Wardell, chief operator for the Skagit County PUD Judy Reservoir treatment plant. This plant was one of the best at lowering finished water turbidity during 2012 and has been near the top for more than 10 years.

2013 TOP Award Recipients
In recognition of excellent performance

Gold Award 10 or more years of continuously optimized performance	Silver Award 5 to 9 years of continuously optimized performance	Bronze Award 3 or 4 years of continuously optimized performance
• Arlington Water Department (2001-2012) • Lake Whatcom Water and Sewer District – South Shore Water System (2001-2012) • Pasco Water Department (2001-2012) • Skagit County PUD #1 – Judy Reservoir System (2001-2012)	• Blakely Island Maintenance Commission (2008-2012) * • Department of Energy 200W (2007-2012) • City of Kelso (2006-2012) • Lake Chelan Reclamation District (2005-2012) • Lummi Island Scenic Estates Community Club (2008-2012) * • Ryderwood Improvement & Service Association (2008-2012) * • Stevens Pass Water System (2005-2012)	• City of Everett Department of Public Works (2009-2012) • Island View LUD 9 (2010-2012) * • City of Leavenworth (2009-2012) • River Bend Water System (2009-2012) • City of Woodland (2009-2012) • City of Yakima Water Division (2010-2012) *

** First-time award recipient for 2013*

You can get help on improving treatment plant performance from our regional offices:

Eastern Region: Mike Wilson 509-329-2117

Northwest Region: Nancy Feagin 253-395-6765

Southwest Region: Janet Cherry 360-236-3036

Tech Tip for surface water filtration plants

Filter bed expansion

Adequate but not excessive backwash rate is important for optimum performance. The filter must be clean to prevent the formation of mud balls. However, it shouldn't be so clean that it results in lengthy "ripening" time and, therefore, a period of poor filter performance.

One way to determine the correct backwash rate is to measure the expansion of the filter media. During backwash, a filter bed expands and the material agitates to help clean-off the collected particles removed from the water.

- In a sand filter with surface wash, the bed should expand about 37 percent.
- In an anthracite bed with surface wash, the bed should expand about 25 percent.

You can calculate this value by measuring the expanded bed against a bed expansion tool. Place the tool on the filter surface and hold it in place during backwash. The expanding bed will deposit filter material in the tubes. Use the longest tube containing material in this calculation:

Bed exansion tool.

$$\% \text{ of expansion} = \frac{\text{inches of longest tube height} \times 100}{\text{inches of total filter bed depth}}$$

If bed expansion is inadequate, increase the backwash rate and re-measure the value.

A bed expansion tool is meant to capture the bed expansion at various heights. Some operators make their own bed expansion tool by mounting a series of pipes in 1" height intervals to a base in various fashions, as shown in the photo. You can also mount small sections of pipe (closed at the bottom and maybe about 2" high) at 1" height intervals in a spiral around the outside of a larger tube.

Special thanks to The Partnership for Safe Water, an alliance of six organizations, for allowing us to base this Tech Tip on an article that appeared in the December 2011 edition of Partnership for Safe Water.

You can get more information about the Partnership for Safe Water online at http://www.awwa.org/resources-tools/water-utility-management/partnership-for-safe-water.aspx

A wider discussion of this topic and directions for developing a secchi disk-type bed expansion tool is in Incorporating filter bed expansion measurements into your backwashing routine.

New technologies support personal awareness for emergencies

The Federal Emergency Management Agency (FEMA) and the Red Cross developed new apps to help families and individuals prepare for weather-related emergencies. They created websites to help you seek shelter and find loved ones after a disaster. Given the recent spate of hurricanes, tornadoes, wildfires, and floods, you may want to share these options with your staff, friends, family, and customers.

Preparedness is always a good thing!

These mobile apps are available for iPhones and Androids.

FEMA Alert: Contains safety tips, lists for your emergency kit, open shelters, and more. http://www.fema.gov/smartphone-app

Earthquake Alert: Receive alerts when an earthquake occurs, prepare your home and family, find help, let others know you're safe. http://www.redcross.org/mobile-apps/earthquake-app

Hurricane Tracker: Monitor conditions in your area, prepare your family and home, find help, and let others know you're safe. http://www.redcross.org/mobile-apps/hurricane-app

Shelter Finder: Maps locations and shelter details across the nation. Zoom in on the local area. http://www.redcross.org/mobile-apps/shelter-finder-app

Tornado Warning: Get your home and family ready with life-saving tools, interactive quizzes, and simple step-by-step advice. http://www.redcross.org/mobile-apps/tornado-app

Wildfire Alerts: Get wildfire news and updates, prepare your family and home, let others know you're safe, and more. http://www.redcross.org/mobile-apps/wildfire-app

Safe and Well webpage: After a disaster, register to let family and friends know you are safe. https://safeandwell.communityos.org/cms/index.php

---

Special thanks to the Association of State Drinking Water Administrators for allowing us to reprint this article.

School challenge doubles water awareness

By Jaime Placencia, Executive Assistant at Shoreline Water District

We at Shoreline Water District are convinced that getting students involved in water conservation at an early age leads not only to greater awareness, but also to recognition of the positive impact they can make as individuals throughout their lives.

With that in mind, Shoreline Water District issued the 2nd Annual Fix a Leak Week Challenge to students in grades K through 8 in Shoreline and Lake Forest Park. This year, we collaborated with the Saving Water Partnership. We provided instructions to all the schools, encouraging teachers to have their students test their home toilets using the "Toilet Leak Detection Kit" that the Saving Water Partnership mailed to area residents.

Fix a Leak Week
EPA WaterSense

The results of this year's challenge were outstanding: nearly all schools increased their participation, and a couple of new schools joined in the challenge, accounting for doubled overall participation!

King's Elementary School won the challenge for the second year in a row, with an overwhelming 89 percent of students participating. That's a sharp increase over last year's 44 percent participation, and included 11 individual classrooms with 100 percent participation. Shoreline Water District and the Saving Water Partnership sponsored a special pizza party to honor the classrooms with the highest percentage of participation.

Evelyn Huling, principal for King's Elementary School, reported how persistent her own granddaughter, a kindergartner at King's Elementary, was: "Not a day went by that she didn't ask me if we'd checked our toilets. When we finally did the test, sure enough, our toilet was losing water. I had no idea." Thanks to her granddaughter's ongoing coaxing, the Hulings performed the necessary repairs. "It was so simple; we had it done in a few minutes."

Shoreline Water District is proud of the students, parents and teachers who took the time to learn more about water conservation through our second annual challenge. We look forward to achieving even greater results next year!

Fix a Leak Week occurs every year in March. It's a great opportunity to remind your customers to check their household fixtures and irrigation systems for leaks. Start to plan an event for your community today. (http://www.epa.gov/watersense/our_water/fix_a_leak.html)

Current rule making

Waterworks Operator Certification Rule

Because state law initiated the rule-making process for the Waterworks Operator Certification Rule (chapter 246-292 WAC), we continued rule development during the rule-making moratorium. We will hold a public hearing at 10 a.m., September 27, 2013, in Room 153 of Point Plaza East, at the Department of Health, 310 Israel Road S.E. in Tumwater. You can view the draft rules on our rule-making activities webpage.

The goals of the rule making are to:

- Incorporate changes made to chapter 70.119 RCW from Substitute House Bill 1283 Chapter 221, Laws of 2009, Public Water System Operators.
- Incorporate Department of Health guidance and long-standing program practices.
- Clarify existing federal and state requirements and procedures.

The rule adoption and effective dates are on the Waterworks Operator Certification Rule Development Timeline. For more information, please contact Theresa Phillips at 360-236-3147.

Drinking Water Laboratory Certification

Rule making activities for this chapter have resumed since the expiration of the state's moratorium on noncritical rule making. We are now revising the draft rule language and beginning to draft the required analysis documents.

The goals of the rule making are to:

- Remove requirements that duplicate Department of Ecology rules.
- Ensure consistent and reliable data reporting.
- Add electronic data reporting requirements.
- Enable public water systems and the department to respond quickly to drinking water quality problems.

The Laboratory Certification Rule Development Timeline outlines projected dates for the remaining steps of the process. For more information, please contact Chris Cooper, laboratory issues coordinator, at 360-236-3115.

Revised Total Coliform Rule

In February 2013, the U.S. Environmental Protection Agency finalized a Revised Total Coliform Rule. The new rule improves the original federal Total Coliform Rule (adopted June 1989) in the areas of monitoring, assessments, corrective action, violations, and public notices. It also changed the health indicator from fecal coliform to *E. coli*, which is a better indicator. The Revised Total Coliform Rule requires systems vulnerable to microbial contamination to identify and fix problems. The intent of these changes is to provide more effective public health protection by reducing exposure to fecal contamination in drinking water.

An array of acronyms

In our rule-making work, we use quite a few acronyms and abbreviations. Here are a few that you may come across as you explore our rule-making activities:

RCW = Revised Code of Washington. These are the state's laws. The Legislature meets each year to amend, repeal, and create new RCWs.

WAC = Washington Administrative Code. These are the state's rules. The Legislature gives rule-making authority to state agencies, like the Department of Health.

WSR = Washington State Register. This refers to a specific publication of the Register. A publication number usually follows this abbreviation. The first two digits of the number refer to the publication year.

§ = Section. It can refer to a section of WAC amended in a WSR publication.

(Continued on Page 12)

September 10: National Protect Your Groundwater Day

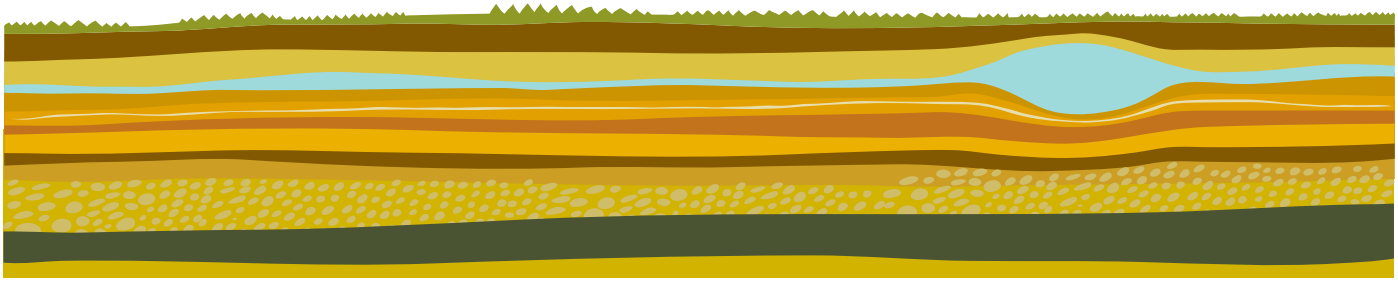
The National Ground Water Association declared September 10 "Protect Your Groundwater Day" to call attention to the importance of groundwater protection. Groundwater protection depends on both water conservation and preventing contamination. Much of our drinking water in Washington State comes from groundwater, emphasizing its importance.

Follow these links for some things you can do to protect your groundwater:

- Protect your drinking water well's sanitary control area
- Choose nontoxic ways to clean your house or car
- Practice common sense gardening
- Safely dispose of hazardous materials

Everyday practices can harm groundwater, so it's up to us to be agents of change. Americans use about 79.6 billion gallons of groundwater per day, making us the largest water users in the world. We all have a stake in maintaining groundwater quality and quantity because 99 percent of available freshwater comes from underground aquifers.

For more information about Protect Your Groundwater Day, visit the National Ground Water Association online.



Rule making... *(Continued from Page 11)*

In June 2013, we received delegated rule-making authority from the State Board of Health to adopt the new requirements into chapter 246-290 WAC, Group A public water supplies. The timeline for this rule is on the rule-making activities webpage. For more information, please contact Theresa Phillips at 360-236-3147.

Other rulemaking information

Please visit our rule-making activities webpage for more information about these rules and basic information about the rule-making process. You can also subscribe to our rule-making email list to receive updates.

Questions?

If you have any questions, please contact Brad Burnham, rules coordinator, at 360-236-3158.

Whidbey... (Continued from Page 1)

In April 2011, the homeowners agreed to explore the purchase option. They formed a 12-person steering committee to gather the information they would need to make a final decision.

The committee soon hired an attorney and an engineer to provide advice and inventory the water system's assets. Several committee members put up the money for legal and engineering services. They met with Office of Drinking Water staff to learn about the many requirements for operating a small system and what it would take to put the Whidbey West system in good order.

"From time to time, a water supplier can lose track of the level of effort and financial resources needed to maintain a water system," said Derek Pell, assistant manager of our Northwest regional office. "While water quality test results show the water is safe to drink, the treatment, pumps, and pipes may slowly degrade without an adequate maintenance and improvement plan. We keep a watchful eye on water system performance and look for ways to address this issue."

On Dec. 7, 2011, just one week before the owner's announced termination date, the homeowners met to make a decision. They reviewed the water system's assets, a budget presentation and the proposed rate structure. When it came time to vote, the decision was unanimous. They would become the Whidbey West Water Association. Part of the agreement required each property owner to join the association.

"We wanted to control our destiny all the way through," said Mr. Schnee.

The steering committee was authorized to work on the purchase until a board of directors could be elected. In March 2012, they incorporated as the Whidbey West Water Association, opened a bank account and established a line of credit, set up insurance, and drafted bylaws.

That summer, they completed an agreement to transfer ownership to the new water association, effective Sept. 1, 2012. By mid-November, the association elected a nine-member board of directors and hired King Water Systems to operate the water system, billing, maintenance and testing. The board oversees all operations.

Since taking over, the association has made about $28,000 in improvements: cleaning water storage tanks, and placing service meters. The 30 meters they've installed so far have helped identify multiple leaks that they've repaired. Their goal is to get all customers on meters. They also plan to install an aeration system to minimize iron and manganese.

The board is currently working on a Small Water System Plan, which they hope to complete this fall. They also hired an engineer to study the feasibility of adding another 20-25 connections and activating an emergency well.

After one year, they're operating at a profit and building reserves.

"In my experience, customers who own their water system are more motivated to focus effort and resources to assure safe and reliable drinking water—and that is what it is all about," Pell said. "The interest in taking on ownership of the water system and community organizing is the most thorough and effective that I've seen. My hat is off to Gary Schnee, Jerry Pitsch, Stan Stanley, and their team."

Schnee revealed a secret of the association's success: good communication. The steering committee sent letters to the homeowners every three months explaining what was happening, how they were proceeding and the issues they were exploring.

"Communication is the most important issue," he said. "We let them know what was going on and what we were doing. We include news in every billing. We still feel communication is going to be paramount to keeping people involved."

New rates... *(Continued from Page 1)*

The fees range from $510 to $1,836, depending on system size. The fees are based on the average time spent to complete a sanitary survey. We use state and federal funds to subsidize 50 percent of the direct costs for systems serving fewer than 1,000 connections.

Under the new fee structure, we'll charge water systems serving fewer than 10,000 connections $102 per hour for the following direct survey costs:

- Survey scheduling, research and preparation
- Survey field work
- Survey documentation, including preparation of a survey report

These water systems will not have to pay for travel costs, extra technical assistance, post-survey follow-up and other expenses. Those costs will be subsidized with federal and state funds.

We will charge systems serving 10,000 or more connections for survey scheduling, research, and preparation; survey fieldwork; survey documentation; travel time; and post-survey follow-up.

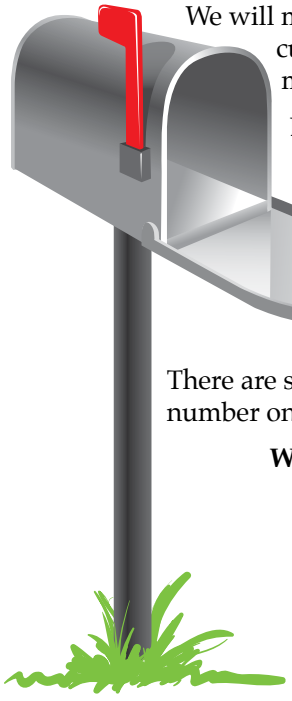
Some surface water systems and the state's largest water systems may require more than one Department of Health surveyor. In that case, each surveyor's time will be billed for all activity applicable to the system's size.

Sanitary surveys for most small water systems are completed by the local health jurisdiction (LHJ) or a private third-party contract surveyor. If the LHJ has local authority to set its own fees, its fees will prevail within the jurisdiction. Beginning in 2014, we will implement the following changes to our fee charged for surveys conducted by a private third-party contract surveyor or an LHJ that doesn't have local fee authority:

- The fixed survey fee charged to very small noncommunity systems will decrease from $510 to $400.
- The sanitary survey fee for larger noncommunity systems and for community water systems will increase from $510 to $600.

If you have questions, contact Scott Torpie at 360-236-3131.

Moved recently? Changed employers? Don't lose your waterworks certification!



We will mail waterworks operator certification annual renewals in mid-November. Do we have your current home mailing address? It's your responsibility to let us know in writing when you move or change employers.

Every year operators have to pay late fees or lose their certification because they fail to report address changes. The Waterworks Certification Guideline states:

"Failure to notify the Waterworks Operator Certification Program **in writing** of a change of address does not constitute a reasonable excuse for failure to renew a certificate prior to assessment of the renewal late fee. **The Department of Health will not consider appeals from operators assessed the late fee for failure to renew due to an unreported address change."**

There are several ways to update your information. Be sure to include your operator certification number on all correspondence.

Write us: Waterworks Operator Certification Program
P.O. Box 47822
Olympia WA 98504-7822

Use the online address change form.

Email: Larry Granish **Fax**: Larry Granish at 360-236-2252

Questions? Call Larry Granish at 360-236-3141 or 800-525-2536, Ext. 1.

Clean, reliable water since 1913

Tacoma Water celebrates 100 years of bringing Green River water to the community

By Nora Doyle, Communication and Marketing Strategist, Tacoma Public Utilities

Today, the 43-mile gravity-based pipeline running from Enumclaw to Tacoma remains the core of Tacoma Water's delivery method. Click the image to watch a video on this project.

In July, Tacoma Water marked a very important anniversary: 100 years of providing high-quality drinking water from the Green River.

In the late 1800s, Tacoma was a young city. The growing population desperately needed water for drinking and fire safety, but there was no dependable water supply. In 1884, people were relieved when Charles Wright incorporated the Tacoma Light & Water Company and began the search for water.

In 1893, the City of Tacoma became the new owner of the water utility, which, by that point, was literally falling apart. It had significant leaks—not surprising for a system built of wood. Moreover, the utility still lacked a dependable water source. Many options were explored as the public suffered with discolored, lukewarm, earthy-tasting and foul-smelling water.

A well field in South Tacoma proved the first workable option, and a few wells were producing water by 1906. Meanwhile, the mayor orchestrated the purchase of water rights in two places on the Green River. It would prove a wise decision.

Political battles followed, with some preferring wells to the Green River. The issue went to a public vote, and the Green River proposition failed. However, as the quality of the existing system continued to deteriorate, the issue went back to the voters. They had a change of heart, finally approving a Green River pipeline.

Work on the system took two full years, with hundreds of men doing the grueling work of laying 43 miles of pipe from Enumclaw to Tacoma. Finally, on July 12, 1913, the water valves in Tacoma were fully opened and 42 million gallons per day of Green River water flowed into Tacoma, giving the city its permanent water supply.

At the time, it was the largest municipal project in the city's 40-year history. Today, the gravity-based system remains the core of Tacoma's water delivery method.

In This Issue

The following people contributed to the production of this issue of *Water Tap*:

Ally Chess, Barbara Martin, Brad Burnham, Carolyn Cox, Denise A. Clifford, Derek Pell, Diane Pottinger, Ethan Moseng, Gary Schnee, Ingrid Salmon, Jaime Placencia, Janet Cherry, Joe Crossland, Kitty Weisman, Larry Granish, Linda Waring, Mike Dexel, Nancy Feagin, Nora Doyle, Peggy Barton, Scott Torpie.

The Department of Health Office of Drinking Water publishes *Water Tap* quarterly to provide information to water system owners, waterworks operators and others interested in drinking water.

John Wiesman, DrPH, MPH, Secretary of Health

Maryanne Guichard, Assistant Secretary of Health, Environmental Public Health Division

Denise A. Clifford, Director, Office of Drinking Water

Comments, questions, story ideas, articles and photographs submitted for publication are welcome. Please address correspondence to Linda Waring, Editor, Water Tap, Office of Drinking Water, P.O. Box 47822, Olympia, WA 98504-7822, or email linda.waring@doh.wa.gov. Past issues are online at http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterTapNewsletter.aspx

Reader survey results

Water Tap is just the right length and most of the articles contain just the right amount of information, according to more than 90 percent of the readers who responded to the survey we conducted in March. Close to 84 percent of readers also like receiving the publication quarterly. We issued the survey to find out what readers think about the new online *Water Tap*. We were delighted to get nearly 400 responses. We value your opinions and the comments you shared with us.

We are already implementing some of your suggestions. For example, in this edition we eliminated the two-column format because some readers said, "It needs to be taken out of the column format. In reading an article you scroll down to the end of the column then you have to go back up to continue the article."

Several readers indicated difficulty navigating from the email through the electronic version of the newsletter. In the email, you can click the story you want to read or view the full issue by clicking the link at the top of the page. In either case, after you open the electronic *Water Tap*, you can use the scroll bar at the right to scan the entire newsletter. You can navigate stories longer than one page by clicking the gray "Continued on Page…" prompt. To get back, click on the "Continued from…" prompt.

Although several readers indicated a preference for the printed version of *Water Tap*, we don't anticipate returning to the printed format. We are looking for a user-friendly way for you to find what you need from past issues of *Water Tap* online.

Which of the following best describes you?

40 % Operator
16 % Local government
13 % Owner
6 % Cross-connection control specialist
2 % Lab
23 % Other. Of those, 24 % are engineers or consultants.

Some people keep old copies of Water Tap. Do you maintain a collection of Water Taps for future reference?

29 % Yes
32 % No
39 % Sometimes

Compared to the printed version we used to send, how much time do you spend reading Water Tap?

17 % More time with the electronic version
46 % About the same amount of time
37 % More time with the printed version

Do you print out Water Tap?

8 % Yes
61 % No
31 % Sometimes

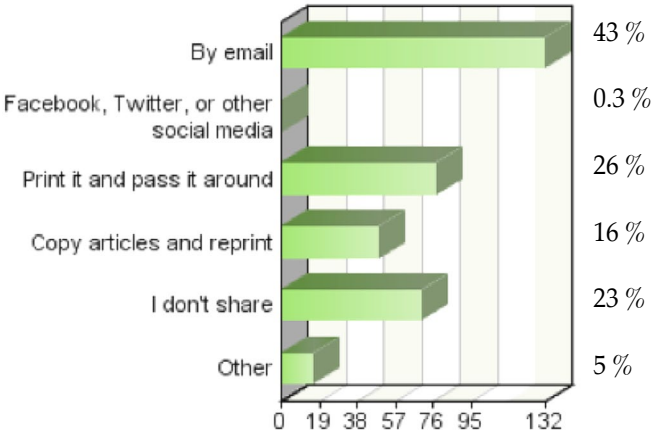
Do you share Water Tap with others in your office?

37 % Yes
37 % No
26 % Sometimes

Water Tap is . . .

94 % Just the right length
2 % Too long
4 % Too short

If yes, how do you share Water Tap? *(select all that apply)*



Most of the articles in Water Tap are . . .

91 % Just the right amount of information
4 % Too long
5 % Too short

Which best describes your opinion on the frequency of Water Tap?

83 % I like Water Tap the way it is (quarterly).
17 % I would like a more frequent Water Tap.

The online Water Tap uses words, graphics, or whole web addresses to link to other resources. Which describes your preference?

83 % The linked word, phrase, or graphic is enough for me.
17 % I need the whole web address.