WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

Drinking Water Week: May 5-11, 2013

3 honored for outstanding efforts

We celebrated National Drinking Water Week by recognizing water systems and waterworks operators for their commitment to providing safe and reliable drinking water. The award winners were Belfair Water District, Gary Sale, and Dave Olson. They were chosen from 24 nominations submitted to us by the February deadline.

"It's always a tough job picking our award winners," said Denise Clifford, director of the Office of Drinking Water. "There are so many great people dedicated to protecting the quality of drinking water in our state."

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

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

"Super-size" your utility when overwhelmed by disaster

By Carl Baird

Carl Baird is the Senior Environmental Specialist at the Everett Public Works Department. He was one of the original members of the steering committee assembled in 2008 to write the agreement and develop a water-wastewater agency response network for our state. –Editor

Most water and wastewater utilities maintain just enough staff, equipment, and spare parts to cover 24/7 service, plus a little extra to handle routine main breaks and service outages that seem to happen several times a year. Sometimes utilities are thrown a 'curve' when no amount of in-house overtime and scrambling can win the game. In those situations, utility managers need to quickly **"Super-Size"** their staff and resources to restore order. Just imagine how helpful it would be to have a big red button to request extra resources.

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We no longer publish the DOH-approved backflow assemblies list. You can view the list online, free, directly from the University of Southern California. You can even view the list on your mobile device.

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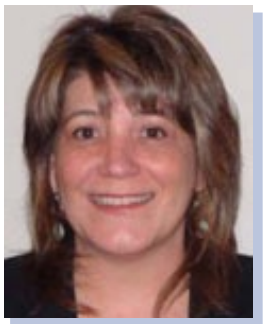
The Director's Column

by Denise Addotta Clifford



Communicating in the 21st Century

One of my most important goals this year is to do a better job of communicating effectively with you, the public water system owners, operators, labs, engineers, and others who follow our work.

I'm proud that we've turned *Water Tap* into an online newsletter that looks good and works well on practically any device, including smartphones and tablets. Our readership survey indicates that *Water Tap* continues to be popular, more than a year after its online debut. Thank you to those who responded. We value your thoughts and we're doing our best to make this publication meet your needs.

We've embraced other new communication technologies as well. We send occasional short messages through our agency Twitter feed: @WA_DeptofHealth. On our main webpage, you can sign up for targeted listserv emails for engineering consultants, Group B water systems, and our rules, policies, or publications. And, we may have recently asked you for feedback on various programs through an online survey tool called "Opinio."

We are also considering developing social media content for water system owners, certified operators and others on sites such as Twitter and Facebook. Would you be interested in using these?

Even with all this technology, at times there's no substitute for face-to-face interaction. To fill this need, we've created a Drinking Water Advisory Group. Anyone with a keen interest in drinking water policy is welcome to attend, space permitting. The group held its first meeting April 29 in our Kent office with a video link to our Spokane Valley office. We will meet again June 24 and August 21 in both places. Let us know if you would like to receive notices of these meetings.

We are also working with our training partners and utility associations to put on workshops throughout the state for smaller water systems that need help with legal, financial, and infrastructure issues. Stay tuned for more information on these, and make sure we have your current email address so we can keep you informed.

Let us know which of our communication tools are providing value to you and how you'd like to connect with us in the future.

Denise A. Clifford

New & Revised Publications

Computer-based testing for waterworks certification (331-424). Revised March 2013. Four pages explain the benefits of computer-based exams for operator certification and how operators can apply to take them.

Testing critical alarms (331-472). New March 2013. Two-page question-and-answer sheet discusses testing critical alarms, their purpose, examples, and what to do if an alarm fails.

Career Opportunities For Veterans in the Water Sector (331-471). New February 2013. A brochure encouraging military veterans to consider a job in the water sector.

The Reduction of Lead in Drinking Water Act (331-473). New May 2013. Two pages explain changes to the definition of "lead-free" and provide guidance for drinking water systems in Washington to use until the U.S. Environmental Protection Agency develops implementation guidance for the new law.

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

PBT sparks an interest in ongoing process improvement

By John Stokes, WTPO 3, Everett Public Utilities

John Stokes describes feed pump calibration to his PBT classmates.

Performance based training (PBT) is a multi-session training series we have offered to rapid-rate filtration water treatment plant operators. PBT combines classroom sessions, hands-on training, and homework designed to help the plants improve overall performance, achieve optimization goals, and protect public health. To date, 20 surface water systems have participated in PBT.

PBT homework gives participants the impetus to investigate their individual treatment plants. While applying what they learn, operators identify factors that may limit performance, and develop skills to evaluate their project further. These studies often begin with a premise of a particular problem, include establishing evaluation goals, methods and timetables, and eventually conclude with written findings and a presentation in front of the PBT group.

The City of Everett participated in PBT last May. We always hope participants will learn a better way to do what they do every day. We are proud of the way operators at Everett have continued to apply the PBT principles since the official end of the training. John Stokes is a water treatment plant operator 3, and a member of the city's new Optimization Team. —Editor

Inspired by the Performance Based Training classes, our senior operator Lowell Lorenz came up with the idea of forming our own Optimization Team on July 18, 2012. It is comprised of drinking water process analyst Mark Weeks and water treatment plant operators Tim Berger, Gary Graves, Jeff Skagen, and myself. We also have great help and support from our fellow operators and managers. Our main goal is to continue to find ways to improve water quality and efficiency in our treatment plant.

Our initial focus was to make our filter backwashing and filter-to-waste process more efficient. Some of our accomplishments are:

- Discovering and fixing some unexpected deficiencies in our filter instrumentation.
- Discovering and correcting some previously undetected and developing problems in our filter media.
- Developing a procedure for sieving filter media.
- Constructing and testing prototypes of several filter media coring tools.
- Evaluating filter backwashing procedures.
- Developing a more-structured filter evaluation and maintenance program.
- Reconfiguring the filter effluent turbidimeter sampling systems to improve turbidimeter response time.
- Verifying the functioning of various filter apparatus to ensure performance.
- Reviewing a variety of literature about filter backwashing techniques, including filter media expansion, extended terminal subfluidization, and air scour and filter-to-waste times.
- Performing some preliminary backwashing experiments that showed promising results.
- Eliminating filter to waste following improvements in our filter maintenance program.
- Doubling filter production per run and reducing the number and frequency of filter backwashes by about 50 percent, which reduces pumping costs.
- Decreasing coagulant dosages.
- Keeping better records.

We have found this to be an enlightening and rewarding tool. It has given us a fresh perspective on our plant and its operations. We plan to continue this team effort well into the future.

For more information about PBT, visit us online.

Professional growth lessons learned

Simple errors can be costly

All certified waterworks operators must meet a professional growth requirement to be eligible to renew their certificates.

Sadly, at the end of every professional growth reporting period, some operators lose their certifications because they didn't meet the requirement. Some make mistakes that prevent training from posting correctly to their transcripts. Others don't take advantage of the information sent to them about the requirement.

We want to keep our operators, so we asked Washington Certification Services (WCS) and our Operator Certification Program for some tips operators can use to avoid errors that could cause problems or cost them their certification.

Watch for notifications

WCS sends notifications to operators when they complete their professional growth requirement. WCS sends reminders to those who haven't met the requirement in June and again in November of the reporting deadline year.

Our Operator Certification Program sends certification renewal notices to operators in November of the reporting year.

So, if you don't receive a letter from WCS documenting completion of your requirement, and you don't receive a renewal notice from us by the end of November in a reporting year, it means that records show you haven't met the requirement.

Check your records online

It is an operator's responsibility to make sure that any training completed toward the requirement is posted correctly on their transcript. Operators can access their professional growth status and transcripts online at http://www.wacertservices.org Be sure to check your transcript periodically and report any errors or omissions to WCS so they can be corrected before the deadline.

Accuracy matters

Most training providers in Washington submit rosters to WCS as a courtesy to their students. If certification numbers are transposed, inactive, or illegible, training can't be posted to an operator's transcript.

Take a different course

If an operator repeats the same class used to meet a professional growth requirement in a previous reporting period, only half of the earned credit will apply to the current requirement. Training repeated during the same reporting period cannot be counted twice.

Take approved classes

Check with the training provider to ensure that a specific course is approved for waterworks operators. Operators cannot use training that has not been awarded CEUs or college credit, or that does not meet our relevancy or other evaluation criteria, to meet the requirement. A current list of courses approved for waterworks operators is online.

Follow distance education procedures

Be sure to take approved distance education courses. Only courses on the list count toward the requirement. The CEU awarded by the training sponsor may differ from those accepted by us. Exams must be monitored and documented by affidavit. You can review the requirements for approval and completion of distance education online.

Exam upgrade to meet the requirement

To meet the professional growth requirement, operators must pass exams at a Level 2 or higher within a classification. Upgrades from an operator in training to a Level 1 within a classification do not meet the professional growth requirement. Obtaining certification in some classifications that are different than the one you already hold may meet the requirement.

Drinking water week... *(Continued from Page 1)*

Operating a water system is a demanding, round-the-clock job that involves planning and engineering, construction and maintenance, monitoring water quality, managing a budget, customer service, and protecting drinking water from the potential effects of droughts, floods, main breaks, vandalism, pollution, and other threats.

National Drinking Water Week occurs each year during the first full week of May to recognize the role drinking water plays in our lives.

Belfair Water District #1 – "Most Improved"

This award recognizes Belfair Water District #1's transformation from a water system in chaos into a well-managed operation. Thomas Peadon, the system's new manager and operator, is largely credited for the system's recent success. The North Mason County water system faced failing equipment, a crisis of leadership, and financial and legal woes. The award credits Peadon and the utility district's board of commissioners with confronting those challenges and restoring public confidence in the water system.

Employees at Belfair Water District earned the "Most Improved" award for overcoming equipment, leadership and financial issues. Here, Maryanne Guichard, assistant secretary of our Environmental Public Health Division (center), presents the award to Commissioner Mike Pope. From left are Regina Grimm of our Southwest Regional Office, Commissioner Linnie Griffin, Guichard, Pope, Jill Satran-Loudin, and Tom Peadon, water district manager.

Don't wait! Submit your nominations now for 2014 Drinking Water Week.

Dave Olson, Contract Operator – "Going Above and Beyond"

Dave Olson has committed to helping us find a solution for a long-standing nitrate issue in north Whatcom County. As a management consultant and certified waterworks operator, Olson initially volunteered his expertise to help us identify alternative sources of water for four threatened water systems that serve more than 700 people. Olson has been working in partnership with DOH for about 10 years and has developed a rich understanding of the nitrate issue. He has led public meetings to share information and help to build community buy-in.

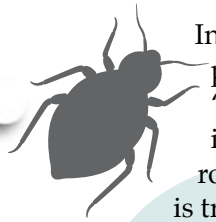
Dave Olson, certified operator (left), listens as Bob James, manager of the Northwest Regional Office, presents the "Going Above and Beyond" award. Olson was recognized for his commitment to helping us resolve the nitrate problem in North Whatcom County.

Gary Sale, Washington State Parks and Contract Operator – "Operator of the Year"

Gary Sale manages state park water systems in San Juan County, provides support for five additional systems in the islands, and is a contract operator for two more water systems. He is an excellent manager who is always looking for ways to improve his water systems. "As Gary has gotten to know our system better, he has made numerous suggestions to the board regarding system enhancements, ranging from infrastructure improvements to the scheduling of routine maintenance," said nominator Tom Baldwin, president of the West Sound Water Association. Despite significant budget and staff cuts at state parks, Sale has kept water systems safe and reliable. "Each water system that Gary works for benefits from his attention to detail and desire to continually meet, or exceed, the requirements of the drinking water regulations," said Carol Stuckey, coliform program manager at our Northwest regional office.

Gary Sale and his wife Wilma celebrate after he received the "Operator of the Year" award for his dedication to keeping drinking water safe and reliable in the San Juan Islands.

How to protect drinking water from pesticides



In today's world of modern conveniences, pesticides seem to be here to stay. "Pesticide" is an umbrella term that includes herbicides, fungicides, and rodenticides. Whether a water system is trying to control weeds or rodents in its sanitary control area or a timber company is required to control noxious weeds in forested watersheds, pesticides can threaten drinking water supplies.

Once pesticides contaminate drinking water, they are difficult to remove. They can damage the human nervous system, immune system, and reproductive system. This article discusses pesticide threats, how to find and negotiate with landowners who may be using pesticides (including your own water system), and provides guidance for safe use of pesticides.

Most pesticides are synthetic organic chemicals (SOCs) regulated through the Washington State Pesticide Management Strategy, federal and state application and storage regulations, and drinking water maximum contaminant levels. However, being regulated doesn't prevent pesticides from getting into drinking water. Extra vigilance is needed to prevent pesticide contamination of drinking water. See our summary of the pesticide management strategy in the September 2012 Water Tap.

While it is best to seek nontoxic alternatives to pesticides, that may not be possible if your water system doesn't own the land. Surface water sources, high-susceptibility groundwater wells, and springs are most vulnerable to contamination and deserve the most attention. In these watersheds, teaching landowners about safe alternatives to pesticide use is a priority. If landowners can't or won't use safer alternatives, you can try to negotiate with them about when and how they apply pesticides.

If you have a high-susceptibility well, start by determining who owns your surface water watershed or the land in your well's six-month time-of-travel zone. If your water system owns the land, you have more control over the activities taking place on that land. To find out who owns the land, you can refer to your source water protection plan or lookup land ownership on city or county assessor databases, which are often available to the public as online mapping tools.

After you identify the landowners, contact them to introduce yourself. Start slowly and build a relationship over time if you can. Successful negotiations are based on trust and relationships. After you introduce yourself, set up a meeting to discuss your mutual needs. Try to put yourself in the landowners' shoes to understand why they believe they need to use pesticides. If they feel understood, they are much more likely to be cooperative.

Sometimes, landowners must use pesticides. For example, they may have a large property that can't be manually weeded, and state law may require them to control noxious weeds, such as Scotch broom. It's possible that they don't need to use pesticides, but they don't understand their alternatives.

During your meeting, ask the landowner if you can ask a few questions to understand their needs. If they agree, consider the following questions:

- What are the primary reasons they are using pesticides? (Seed control? Plant eradication? Helping a crop survive? Pest control?)
- Are they using pesticides to control noxious weeds as required by state law? If so, which weeds?
- How large is the property they want to treat?
- What is their schedule for applying the pesticides?
- What application methods are they considering?
- Do they need to use pesticides within 200 feet of surface water? If so, what application methods do they plan to use? (Backpack spraying? Manual spraying?)

Listen carefully to their answers, take notes, and ask follow-up questions to understand their needs and position.

Next, talk about your water system's needs. Points you may want to emphasize include:

- Surface drinking water supplies (and high-susceptibility wells) are more vulnerable to contamination because of the high potential for contaminants to reach drinking water quickly.
- Your water system's treatment is not designed to remove pesticides.
- Protecting health for water system customers depends on good stewardship of the watershed, including safe pesticide application practices or using alternatives to pesticides if possible. The areas closest to the surface water intake or sanitary control zone of the well are most vulnerable to contamination and deserve the greatest degree of protection.

(Continued on Page 11)

Reminder for 2013 sanitary surveys

Online capacity assessment for small systems

If you have a sanitary survey scheduled this year and your system serves 1,000 or fewer connections, we asked you to complete the online capacity assessment as part of the survey process. The assessment includes 18 questions about your water system's managerial and financial capabilities, opportunities for your comments, and feedback to help you improve your system's capacity. We are using the information to help us offer technical assistance where it's needed most.

Already completed the assessment?

Thank you! We'll use your information to help shape the technical assistance we'll offer in the future. You may recall completing the assessment during our 2011 pilot. Now is a good time for the operator and governing board members to review and update their responses. To do so, go online and log back into the assessment.

Not there yet?

If your Sanitary Survey is still to come, we're counting on you to take the assessment as part of your survey. If your survey date has passed, we'd still like you to use the assessment as a tool to take stock of your financial and managerial capabilities, share your comments with us, and use the feedback and resources provided at the end of the assessment.

You can get more information about the assessment at http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance/CapacityDevelopment/CapacityAssessment.aspx

WAWARN... *(Continued from Page 1)*

Now, figuratively speaking, some Washington utilities do have a "big red **WAWARN** button" for accessing additional staff and resources. They got their button by signing the **WAWARN** mutual aid agreement with other utilities in the state.

WAWARN stands for *Mutual Aid and Assistance Agreement for Washington State for Intrastate Water/Wastewater Agency Response Network*. Because that is too much to remember, we just call it **WAWARN**. The WARN system was developed by the U. S. Environmental Protection Agency and the Federal Emergency Management Agency. All states now have WARN systems.

WAWARN uses a mutual aid agreement to standardize how water and wastewater utilities can share resources. The agreement covers key issues such as reimbursement, indemnification, workers' compensation, insurance, liability, and dispute resolution. Resolving these issues in advance helps to expedite resource sharing during emergencies.

We currently have 57 members across the state. In February, **WAWARN** launched its website to serve the needs of our members better. You can access the website at http://www.wawarn.org/ At the top of the homepage, click "Announcing **WAWARN** mutual aid website service." The link will take you to an introduction and guidance for navigating the website. We also provide a simple online registration process that allows prospective members to view the member's side of the website, even before they sign the agreement. At the bottom of the page, you will find contact information for **WAWARN** staff who can answer your questions.

We all hope that our utilities never experience a major disaster. However, having **WAWARN** in your emergency response tool kit is a good idea. Please consider registering on our website. Increasing the number of **WAWARN** members will benefit all of us.

Setting rates

By Dan Bannier, Rural Development Environmental Specialist at the Rural Community Assistance Corporation (RCAC)

Are you concerned that your water rates are inadequate? Are you thinking about revising your water rates? Here are the parts of the rate development process and some issues to keep in mind.

- **Rates must be set at a level that covers all of the costs to produce, treat, store, and distribute water to all customers.** These functions include other parts of a "business" that are not so visible—servicing debt, funding financial reserves, and other operations, maintenance, and administrative costs—including those associated with regulatory compliance.
- **Rates must be fair and equitable.** Fair means that they are high enough to cover all costs of operating the system. Equitable means that each type of customer is paying its rightful share of the costs.
- **A water system's revenues *must not* be used to pay for other municipal services.** Using water revenues for other purposes, while not adequately maintaining financial reserves or fully funding maintenance needs, will only increase the costs of operations in the end.
- **Customers should know what the rates are.** People today demand transparency of their government. Your governing board should post water rates in the water department or city office, on your website, and comply with any other state notification approval requirements. You should send the rate schedule to all customers at least once a year and every time there is a rate adjustment.
- **The rate structure should be easy to understand.** Small systems (fewer than 5,000 users) should have one to three user classifications and one to three consumption blocks.
- **Water rates have a short life span.** You should examine the existing rate structure at least once a year as part of the budget-development process to determine whether an adjustment is necessary before the regular budgeting process.
- **Good rate structures are based on actual, accurate financial information and good customer records.** It's difficult to develop a fair and equitable rate structure if you're not sure what your income and expenses have been for the last two to three years and how much water you are selling to each customer.
- **The rate structure should be easy to administer.** If it is too complex, chances are it's going to be hard for customers to understand and support.

Examining your current rate structure

Before you look at raising rates, you should examine the current rate structure. The following questions can help you decide whether a rate adjustment is needed in the near future:

- Did your system's revenues exceed expenses in each of the last three years?
- Were you able to make all scheduled payments on your long-term debt?
- Are you fully funding reserve accounts?
- Were you able to cover the cost of emergency and preventive maintenance?
- Does your system comply with state drinking water standards and regulations?
- Have you had a rate increase in the last three years?

If you answered "no" to any of these questions, it may be time to examine your rate structure.

Gaining public support

There is no way to get overwhelming public support for a rate increase. In fact, widespread support for higher rates will probably never happen. You can increase public support and avoid most anger and frustration by ensuring that:

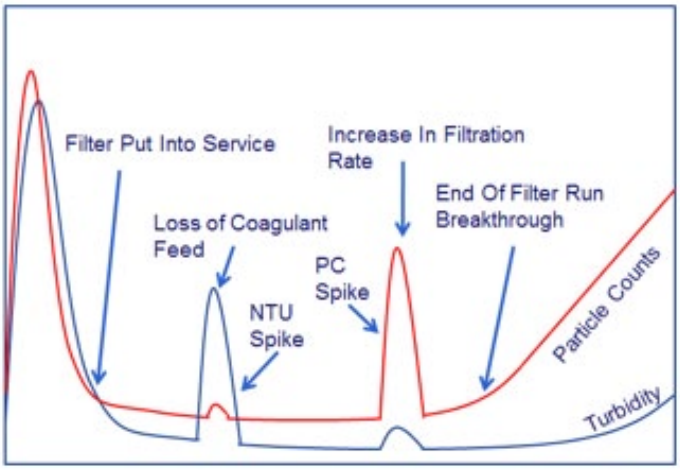
- Customers have a clear understanding of the proposed rate structure.
- You clearly explain that the rate structure is necessary to operate the system on a financially sound basis.
- Each class of customers is paying its fair share of the costs.

Understanding the nature of particle counter and turbidity data

By John Clark, VP General Manager, Chemtrac Inc.

Interpreting particle counter and turbidity data can be puzzling when the respective instruments give differing responses to water quality excursions. For example, turbidimeters (light scatter measurement) may exhibit a greater sensitivity to declining filter effluent quality resulting from under or overfeeding coagulant, while particle counters (light blockage measurement) are routinely more sensitive to deteriorating water quality resulting from filter integrity issues, changes in filtration rate, and reaching the end of a filter's runtime.

The graph shows how one process event results in turbidity increasing by a much larger magnitude than particle counts, and a second event of a different nature yields almost the exact opposite response.



Why do results vary, and what can we learn from them?

The varying responses are primarily due to differences in particle size distribution. For example:

- Some events, such as improper coagulant dosage, shift the total particle volume toward smaller size ranges because more submicron particles are not properly coagulated.
- Other events, such as changes in filtration rate, cause larger floc particles to detach from the filter media, resulting in larger particles.

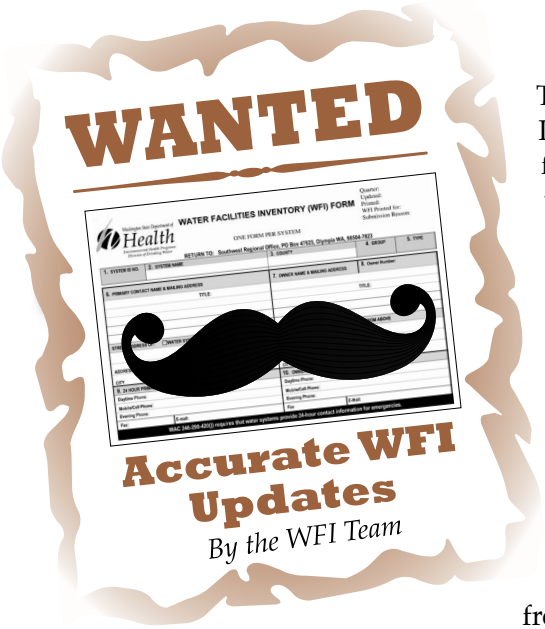
Particle counters typically have a detection limit of 2 microns, and do not count submicron particles. Submicron particles have a large surface area to volume ratio, which makes them very efficient at scattering light. Therefore, for a given concentration of solids, any shift in the size distribution toward the submicron range will result in a higher turbidity value and a lower particle count. However, for that same concentration, a shift in the size distribution toward particles greater than 2 microns would mean a lower ratio of surface area to volume, resulting in a lesser turbidity response, and a better particle counter response.

What is important to understand is that the two instruments respond differently to changes in size distribution. As a result, and as the table shows, two samples with the same concentration of solids can have two completely different turbidity and particle count relationships.

TSS	Turbidity	Particle Counts
5 ppb	0.15 NTU	15 cnts/ml
5 ppb	0.08 NTU	120 cnts/ml

Research following *Cryptosporidium* outbreaks in the early 1990s emphasized that light scatter turbidity measurements are inherently less sensitive to filter breakthrough events composed of larger particles (where crypto resides), as compared to breakthrough events associated with higher numbers of submicron particles. That is why particle counters were introduced into the drinking water industry. They were needed to fill in the water quality monitoring "gap" that would otherwise exist when only turbidimeters are used to monitor filter effluent. Given the associated risk, plants can use particle counter technology for early detection of certain types of filter excursions and to ensure consistent optimum filter performance.

As with all technologies, it is important to research all available options before purchasing a particle counter. Some models are expensive and difficult to calibrate, and some cannot be field calibrated. However, there are newer models available with several advanced features including volumetric readout (ppb), and user-friendly calibration procedures. Be sure to ask for product demonstrations on these latest features before making any decision to purchase an instrument.



The Water Facilities Inventory (WFI) form is one of many tools we use to help protect the health of the people of Washington State by ensuring safe and reliable drinking water. The WFI contains numerous details on each water system, and these details change frequently. So your WFI Team is always on the lookout for "Accurate WFI Updates."

What is a "WFI update"?

We want each water system to review and correct the information reported to us on its WFI form. Review, correct, sign, and then mail your WFI to your regional WFI coordinator. We are even on the lookout for WFIs that are still accurate. Just check the box that says "Update-No Change," sign and date the WFI, then mail it in.

Why is accurate WFI information so important?

We use the information on the WFI to calculate your coliform and water quality monitoring schedules, operating permit fees, and appropriate certification levels for your operators. Banks and financial institutions use WFI information for mortgages. Water systems and this office routinely use primary contact and ownership contact information for daily and emergency purposes. Considering all of that, we think accuracy is very important, don't you?

When should I update my WFI form?

"Accurate WFI Updates" are "Wanted" annually, upon request, with each construction completion report, with each water system plan, and within 30 days of any change to the existing WFI information.

How can I get my WFI form?

- Visit us online to Download/Reports
- Click "I accept," then "Submit"
- Select Water Facilities Inventory (WFI)
- Enter your 5-digit public water system ID number
- Click "Submit" at the bottom of the page
- You can now print your WFI

Regional WFI coordinators

Northwest Region: Krista Chavez 253-395-6772

Eastern Region: Katrina Anderson 509-329-2128

Southwest Region: Brad Brooks 360-236-3049

Interested in infrastructure improvements?

Know the 3 Rs!

Infrastructure improvement projects fall into three classifications:

1. **Repair:** Corrects a minor problem to maintain the existing structure.
2. **Rehabilitation:** Improves the existing structure or restores it to its original condition.
3. **Replacement:** Involves demolishing an existing facility and constructing a new and improved one. However, replacing only major components is part of rehabilitation.

A properly maintained system will include some annual repair or rehabilitation expenses in its annual operating budget. These investments will help ensure that facilities last as long as possible. When a system or facility is not adequately maintained, or when a community's needs change (due to a population increase, the introduction of a new technology or a new regulation), replacement may be necessary.

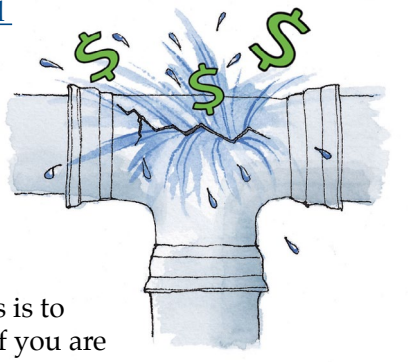
Replacement should be part of the capital improvement plan and be funded through the budget. Communities should calculate the cost of such improvements and make smaller, annual contributions to a reserve fund each year to build up reserves for expenses over the life of the facility.

We took this article from Developing Water and Wastewater Projects in Small Communities, a manual developed by the Rural Community Assistance Corporation. Check it out for information on developing water system projects in small communities.

Submit your WUE report online by July 1

The deadline to submit your annual Water Use Efficiency (WUE) report to us and your customers is almost here.

Here's a tip: Before you fill out the WUE report online, download a WUE Annual Reporting Worksheet from our website. The worksheet asks you all of the same questions the online reporting system will ask you. By filling out the worksheet beforehand, you will be ready to quickly and easily submit your report online. You can even cut and paste information from the worksheet into the reporting database.



You can also visit our WUE Reporting Resources page to prepare for submitting your WUE report.

Don't forget to send your WUE report to your customers. The best way to do this is to summarize the WUE information in your Consumer Confidence Report (CCR). If you are using EPA's new guidance to report CCR information online, you can also include WUE information. This will meet our requirement to send WUE information to your customers by July 1.

Pesticides... *(Continued from Page 6)*

You may want to show them a map of your source water protection area.

After landowner and water system needs are on the table, invite the landowner to explore alternatives with you that might better protect the watershed and drinking water supply. They will probably agree. It's likely they or their employees are drinking the same water, and no company wants to end up in the news because it accidentally contaminated a public drinking water supply. After you get a sense they are open to further discussion, share the following guidance with them:

- If the property is small enough, or for areas immediately around the well or surface water intake, consider using nontoxic alternatives to pesticides. Thurston County provides guidance online about nontoxic pest and weed control.
- Ask if they are open to developing a joint agreement or plan for future pest and weed control, to ensure long-term protection of the watershed.
- Ask them if they would consider receiving guidance from the local weed control board. The state Noxious Weed Control Board provides local contact information and other noxious weed control resources. Most local weed control boards provide onsite technical assistance to landowners if requested.
- If they must use herbicides to control noxious weeds, use a formulation certified for aquatic use. These formulations break down quickly before they reach surface water, so are less of a threat to drinking water. Washington State Department of Ecology has helpful information about herbicides certified for use in aquatic areas.

- Hire a licensed pesticide applicator. State law requires most businesses that commercially apply pesticides to another's property to have a commercial applicator license. The state Department of Agriculture recommends that you verify the current licensing status of the company and its employees.
- Carefully follow the instructions on the pesticide container.
- Do not spray pesticides within 200 feet of any surface water (lakes, streams, rivers).
- Minimize wind drift by using larger droplet sizes when spraying pesticides.
- Spray during calm weather (no rain or wind forecast for 2-3 days if possible) to minimize wind drift and loss of pesticide effectiveness.
- Notify the water system of exact dates and times of spraying, chemical used, and method used.

The water system should follow any pesticide application with a round of SOC samples to ensure drinking water is not affected.

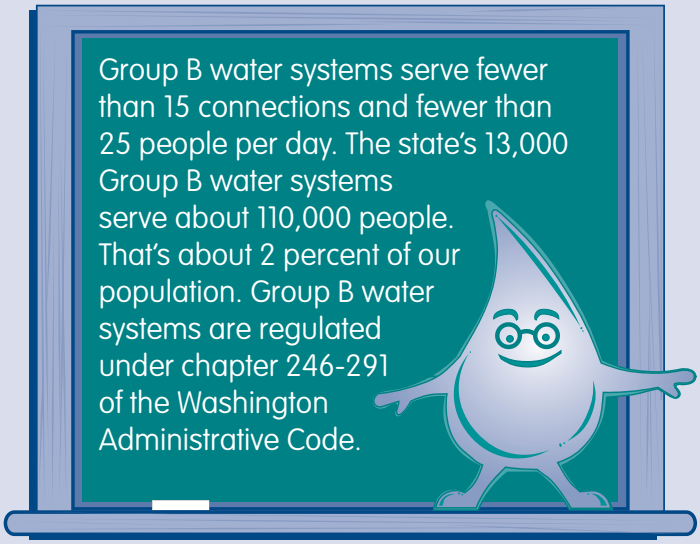
For more information, contact Kitty Weisman at 360-236-3114.

Recent Rule Adoptions

Big changes for Group B water systems

Effective January 1, 2014, changes to the Group B Rule will strengthen the design standards for new and expanding Group B systems and eliminate ongoing monitoring requirements after systems are approved. The State Board of Health adopted the changes in 2012.

The state Department of Health and local health jurisdictions (LHJs) share regulation of Group B systems. LHJs may adopt standards that are more stringent, including ongoing monitoring requirements for Group B systems.



The major changes include:

- Requiring new or expanding Group B systems to use a drilled well for the system's water source.
- Changing the arsenic limit for new or expanding Group B systems from 50 parts per billion (ppb) to 10 ppb.
- Requiring new or expanding Group B system designs to use standard population criteria.
- Eliminating requirements for ongoing monitoring.
- Exempting Group B systems with one or two connections from all requirements.
- Providing clear authority for LHJs to adopt requirements that are more stringent.

For more information about the rule changes, see the:

- Summary of changes
- Final rule language

If you are designing a new Group B system, or expanding an existing Group B system, contact your county health department or our regional office to find out how the changes may affect you. For more information, please check for periodic updates on our Group B webpage or join our Group B email list to get automatic updates. You can also contact Dave Christensen, policy unit supervisor and rule lead, at 360-236-3153.

Current Rulemaking

Drinking Water Laboratory Certification

With the expiration of the governor's executive order that placed a moratorium on rulemaking, we are moving forward with the Laboratory Certification rulemaking, chapter 246-390 WAC. We've updated the Laboratory Certification Rule development timeline to show anticipated dates for publishing rulemaking documents.

For more information, please contact Dave Christensen, policy unit supervisor and rule lead, at 360-236-3153 or Chris Cooper, water quality assessment specialist, at 360-236-3115.

Waterworks Operator Certification Rule

We are revising this rule to incorporate recent changes to Public Water Supply Systems – Operators, chapter 70.119 RCW. We are preparing analysis documents in anticipation of holding a public hearing later this summer.

For more information, please view the waterworks operator certification rule development timeline or contact Theresa Phillips, rule developer, at 360-236-3147.

Other rulemaking information

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

Questions?

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

A new definition of "Lead Free"

The Reduction of Lead in Drinking Water Act, will take effect on January 4, 2014. All water systems that provide water for human consumption must use materials, devices, and components that meet the new "lead-free" requirement.

The law changes the definition of "lead-free" from a weighted lead content of 8 percent or less to a weighted average of less than or equal to 0.25 percent for surfaces in contact with potable water. It also establishes a formula to calculate the weighted average lead content.

Any materials used for installation or repair must be "lead-free," including pipes, pipe fittings, and plumbing fittings or fixtures. The law doesn't change the definition of "lead-free" for solder or flux (0.2 percent lead).

The law specifically exempts:

- Nonpotable water uses such pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, used exclusively for manufacturing, industrial process, irrigation, outdoor watering, or any other uses where water is not intended for human consumption.
- Toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are at least two inches in diameter.

For more information

Many utilities have asked how this change will affect them. We developed guidance that drinking water systems in Washington can use until the U.S. Environmental Protection Agency develops implementation guidance for the new law. For more information, see *The Reduction of Lead in Drinking Water Act* (331-473) question and answer sheet. If you have additional questions, call Derrick Dennis, water quality unit supervisor, at 360-236-3122.

Fire PALS bill becomes law

The Legislature recently passed a law that protects public health by clarifying responsibilities and liability related to fire hydrants and other fire-suppression water facilities. House Bill 1512 was developed by the Washington Fire Protection, Payment and Liability Security (WA Fire PALS) Working Group. WA Fire PALS is a large coalition of stakeholders, including governments, associations, public and private utilities, and fire protection officials.

Why was the change needed?

Recent Washington State Supreme Court decisions created questions and confusion about who pays for fire hydrants.

The first case, *Lane v. City of Seattle* (2008), ruled that providing fire hydrants is a general governmental service, just like a city providing streetlights or police protection. General governmental services must be funded by taxes, not by fees charged to ratepayers. Historically, many water utilities included fire protection facility costs in the rate base and recovered costs from rate-paying customers.

The second case, *Tacoma v. Bonnie Lake* (2012), ruled that utilities could not bill a general government for fire protection facilities if they have a franchise agreement. Utilities were left "holding the bill," so to speak. The court was silent on what to do in those instances and didn't address non-municipalities.

What are "fire suppression water facilities"?

Water supply transmission and distribution facilities, interties, pipes, valves, control systems, lines, storage, pumps, fire hydrants, and other facilities, or any part, used or usable for the delivery of water for fire suppression purposes.

The solution

Substitute House Bill 1512:

- Confirms that water systems have authority to build and maintain fire suppression facilities.
- Clarifies that water systems may collect the funds to cover the associated costs of these facilities from ratepayers.
- Protects water systems from liability for fire protection services.

Water utilities and the public will benefit from the clarity in the new law, which will improve public health and safety.

Leadership workshop for small water systems

June 26-27 in Spokane

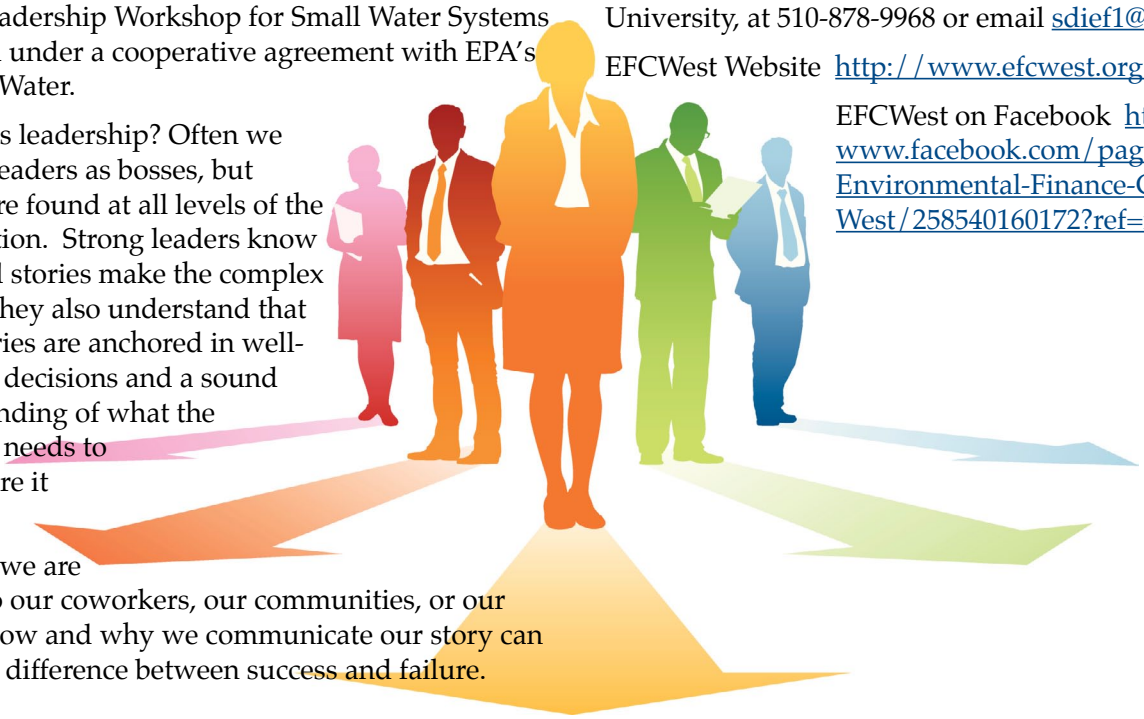
Do your charts and figures motivate your team and engage your audience? Do your community outreach efforts lead to the change you want? Do you have a process to weigh risk, cost, and environmental impacts to make decisions affecting your community?

If you answered "yes" to these questions your leadership skills are up to the challenge. Managers with strong leadership skills can help their customers understand and accept the changes necessary to sustain their water systems. They know how to make decisions that balance risk, cost, and environmental impact to ensure safe, affordable drinking water for their community.

If this does not describe you and your team, you may need leadership training. The Environmental Finance Center Network (EFCN) can help. They're offering a free workshop designed to make you more effective in your professional and personal interactions. The workshop is designed to develop strong leaders for healthy, safe, and affordable water systems.

The EFCN is a university-based organization devoted to creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement. EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs. The EFCN Leadership Workshop for Small Water Systems is funded under a cooperative agreement with EPA's Office of Water.

So what is leadership? Often we think of leaders as bosses, but leaders are found at all levels of the organization. Strong leaders know that good stories make the complex simple. They also understand that good stories are anchored in well-reasoned decisions and a sound understanding of what the audience needs to hear before it signs on.



Whether we are talking to our coworkers, our communities, or our boards, how and why we communicate our story can make the difference between success and failure.

Finally, effective leaders must have a bank of tools and strategies to help diffuse emotionally charged situations and manage conflict. From being an effective listener to knowing how to ask the right questions, this workshop will help you understand and accommodate your stakeholders so you can get the job done.

If you want to learn how to:

- Improve your ability to turn dry numbers into a compelling message that will motivate your audience.
- Create the key elements of an effective outreach process.
- Learn strategies to improve your decision-making process.

Attend a leadership workshop

Location: Spokane Community College, Spokane, Washington

Date: June 26-27 (9 a.m. to 4:30 p.m. on Wednesday and 8:30 a.m. to 12:30 p.m. on Thursday).

Audience: The workshop is for drinking water systems serving 10,000 or fewer customers, water system managers, municipal decision makers, elected officials, town managers, and mayors.

Cost: Free. Participants are responsible for their food and travel costs.

Registration: To register, email Sarah Diefendorf

Questions: Call Sarah Diefendorf, Dominican University, at 510-878-9968 or email sdief1@gmail.com

EFCWest Website http://www.efcwest.org/

EFCWest on Facebook https://www.facebook.com/pages/Environmental-Finance-Center-West/258540160172?ref=mf

Funding options for small communities

National Rural Water Association (NRWA)

The NRWA Revolving Loan Fund provides financing to eligible utilities for pre-development costs associated with proposed water and wastewater projects. Funds can be used for short-term costs of replacing equipment, small-scale extension of services, or other small capital projects that are not part of your regular operations and maintenance.

To be eligible, the applicant must be a public entity. This includes municipalities, counties, special purpose districts, Native American Tribes, and nonprofit corporations (including cooperatives, with up to 10,000 people and rural areas with no population limits).

Loan amounts may not exceed $100,000 or 75 percent of the total project cost, whichever is less. Applicants will receive credit for documented project cost prior to receiving the loan.

The maximum loan term is 10 years. The repayment period cannot exceed the useful life of the facilities or financed item. Five-year, interest only, predevelopment loans will also be available.

You can get an application form online. For information, or to submit information, email david@nrwa.org or mail to Rural Water Revolving Loan Fund, 2915 S. 13th Street, Duncan, OK 73533, 800-332-8715.

If you need help acquiring, preparing, or submitting the required documents, call Tracey Hunter at Evergreen Rural Water of WA 360-462-9287.

Rural Communities Assistance Corporation (RCAC)

RCAC is a "needs lender," which means they identify the needs of clients and then structure the financing terms to meet those needs. RCAC-financed projects must provide a public benefit. The RCAC Loan Fund is a financing partner with other financial institutions, not a competitor. Financing may be solely by RCAC or in partnership with conventional lenders or other community development financial institutions under terms that ensure project feasibility in meeting the mission of the particular loan program.

To be eligible, the applicant must be a nonprofit organization, public agency or tribal government.

Eligible projects include water, wastewater, solid waste, and storm water facilities that primarily serve low-income rural communities.

Short-term loans 1 to 3 years

Feasibility (such as preliminary engineering and environmental reports)

- Up to $50,000
- Unsecured, promissory note only
- One-year term
- Applicant must
  - Be eligible for long-term financing from governmental or other source and have reasonable priority rating for probable funding.
  - Agree to repay loan, on extended terms, if necessary, if project does not proceed.
  - Have technical assistance to extent needed, either from RCAC or another acceptable technical assistance source.

Predevelopment (such as engineering, legal, bond counsel)

- Preconstruction costs
- Amount corresponds to Letter of Conditions from long-term funding source
- $350,000 maximum
- Unsecured, promissory note only
- One-year term
- Technical assistance as necessary

Construction

- Amount corresponds to Letter of Conditions from permanent funding source
- $2 million maximum
- Loan term corresponds to construction period

Intermediate term loans:

- Up to 20-year term
- 5 percent interest
- $100,000 maximum

If you are a small water system interested in applying for a loan from RCAC, please contact Joshua Griff, loan officer, at 720-898-9463 (office), 720-951-2163 (cell), 303-455-7916 (fax).

Some certified BATs are NOT ELIGIBLE to test assemblies!

Effective January 1, 2013, only backflow assembly testers (BATs) who passed Washington's practical exam under the 10th edition of USC's Field Test Procedures are eligible to test assemblies and submit test report forms to water systems. Washington Certification Services posted a list of currently certified BATs not yet eligible to test assemblies online. Water systems should not accept test reports from anyone still on this list.

Why wait? Take your professional growth exam now!!

BATs can apply for and pass the professional growth exam any time during their reporting period. There is no need to wait; apply for your exam soon. You'll beat the rush and enjoy the added benefits of:

- Less stress! Pass the exam early and forget about it until your next reporting period.
- Greater knowledge retention and skill from your last exam and training you may have already taken.
- More flexibility in selecting an exam date and location.
- Plenty of time for additional practice or training if you don't pass the exam.

Bremerton takes top spot in national water contest

The City of Bremerton ranked first among cities of its size in the second National Mayor's Challenge for Water Conservation. The contest, which ran April 1-30, asked residents to sign an online pledge to conserve water and resources. Bremerton residents kept the city in the top 10 ranking for the duration of the contest, usually in the #1 spot for cities of 30,000 to 100,000 people.

"Water is Bremerton's remarkable resource. I appreciate the support of our residents during this contest and encourage everyone to learn more about their water and energy use at home," said Mayor Patty Lent. "This contest was a fun way to learn about water-wise habits and create a more sustainable environment."

"The mayor's challenge highlights the impact of each person's environmental efforts," said Water Resources Manager Kathleen Cahall. "The city's prize for participating in this contest is increased awareness about the importance of our water resources."

The Wyland Foundation sponsors the Mayor's Challenge for Water Conservation. Nationally, citizens pledged to save nearly 742.2 million gallons of water this year. The challenge will continue in 2014.

New training calendar

Visit Smallwatersupply.org where you'll find a training events calendar for small water supply operators. The calendar is an interactive database that allows you to select criteria to customize the results into a calendar of events relevant to you.

Under select, choose state. Then under state, scroll down and choose Washington. A monthly calendar will pop up, and you can choose the date or topic you are interested in.

In This Issue

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

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