WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

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

Volume 24, #4 - December 2009

Congratulations TOP Systems

14 receive awards for treatment excellence

In September, we recognized 14 water systems that treat surface water with direct, conventional, or in-line rapid-rate filtration. All participated in the Washington Treatment Optimization Program (TOP) where we challenged them to go beyond the regulatory standards to meet two goals:

- Achieve a combined filter effluent turbidity of 0.10 nephelometric turbidity units (NTU) or less in 95 percent of maximum daily measurements each year.
- Never exceed a maximum filtered water turbidity of 0.30 NTU.

We started TOP in 2001 to encourage surface water rapid-rate treatment plants to achieve the best water quality possible from existing facilities. TOP focuses on stringent particle removal and disinfection performance goals to maximize public health protection from microbial contaminants. The U.S. Environmental Protection Agency endorses these goals.

After eight years of implementing the program, we presented certificates of achievement to the systems that consistently met the turbidity goals for three or more

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Fee-for-Service Change

When we review engineering and planning documents, issue waivers, conduct sanitary surveys, and certify operators, we charge a "fee-for-service." The goal of our fee-for-service program is to match our level of effort with the fee we charge water systems for these activities.

Our current fee schedule does not cover the actual cost of providing some services. Because the Legislature has to agree to change the fee schedule, and we don't expect they'll do that before 2011, we looked at changes we can make now until long-term solutions can be made.

A key data source we used in our decision-making was a July to December 2008 time study. Our regional engineers and planners tracked the time they spent reviewing engineering and planning documents and conducting sanitary surveys. Next, we compared their time against the fees we charged for those services.

Starting January 1, 2010, you will see the following changes:

Document reviews

- Use the current fee-for-service fee schedule (WAC 246-290-990) to calculate the approximate level of effort we use for these activities. We know the level of effort funded by fees does not match the time we need to review some types of documents or projects. Until we can revise the fee schedule, we are trying to link revenue received with time spent.

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Cross-Connection Control Scholarships

For qualified owners and employees of DOH-approved public water systems. From the Pacific Northwest Section of the American Water Works Association. E-mail Scott Hallenberg at shallenb@cityoftacoma.org or call (253) 502-8215 for qualifications and information.

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The Director's Column

by Denise Addotta Clifford

Our Approach: Position Small Water Systems to Succeed

As you read this, state legislators are preparing for the 2010 legislative session. The Department of Health's report on small drinking water systems is among the many items demanding their attention.

Legislators, concerned with the growing amount of state funds being spent to shore up failing water systems, asked us to study the situation and recommend changes to help small water systems be more successful. They've given more than $18 million since 2003, to address urgent health threats posed by failing water systems.

We looked at small water systems throughout the state, both highly successful ones and those with significant issues. For purposes of the report, we defined small systems as those with fewer than 1,000 connections. Some **Water Tap** readers sent me ideas about what makes a small system fail or succeed. Thanks for sharing your thoughts with me.

The problems we found tended to fall into one of three categories: technical, financial or managerial. For example, in 2008, small water systems committed most of the violations for failing to properly monitor drinking water quality. All too frequently, the reason for these violations is a lack of commitment by the owner, governing board, or customers to invest money in the system to ensure safe water at the tap.

Our recommendations to legislators are designed to slow the proliferation of new small systems and help existing ones succeed. In broad terms, we're recommending the Legislature:

- Require developers to request water service from an existing utility that serves the area rather than establish a new water system.
- Require that new water systems serving 25 or more people be owned by a satellite system management agency or a public entity, such as a water district. Both ownership models would support improved public health protection and long-term financial viability.
- Improve oversight of water systems' financial viability and provide technical assistance on rate-setting and financial planning where problems exist.
- Strengthen the existing legal framework for addressing failing water systems.

The economic recession will likely make bad situations worse, so we can't afford to wait. We'll be making some of the recommended changes on our own; others require legislative approval.

All Washington residents deserve to have safe and reliable drinking water. We think the steps outlined in the report to the Legislature will help get us there.

Denise A. Clifford

Read the entire report!

You can read the complete report to the Legislature, **Small Public Drinking Water Systems (331-437)**, online at <http://www.doh.wa.gov/ehp/dw/Publications/331-437.pdf>

2010 Backflow Assembly Tester Exam Schedule

BAT Certification Examinations			BAT Professional Growth Examinations		
Auburn	Spokane	Vancouver	Auburn	Spokane	Vancouver
January 25 February 22 March 15	January 25 February 22 March 15	February 22	The current professional growth reporting period for all BATs certified before January 1, 2007 ends December 31, 2009. Professional growth examinations in 2010 will be scheduled based on demand.		

For the most up-to-date exam schedule, and information about applying for an exam, visit Washington Certification Services online at <http://www.wacertservices.org> or call (877) 780-2444.

Economic recovery

Supporting jobs, improving drinking water

The federal economic stimulus is starting to bear fruit in Washington State. More than 20 drinking water projects made it through an intensive review and loan agreement process and are in various stages of progress. Our state had $38.5 million to distribute for drinking water infrastructure.

The 2009 American Recovery and Reinvestment Act requires construction to begin by February 17, 2010. Washington is well positioned to meet that deadline.

Work already began in some communities, including Metaline and Startup. That means better drinking water and jobs in these tough economic times. Startup is replacing crumbling water mains that break frequently, and Metaline is doing an extensive water system update.

One project that will have rippling impacts for years to come is a new reservoir and water treatment plant for the City of Ocean Shores. The community has been plagued with a dwindling water supply, as well as water quality, taste, and odor issues. This project will improve public health protection and boost the economy in one of the state's most popular tourist destinations.

"It's exciting to see work happening on deserving projects that will make a big difference for Washington residents," said Denise Clifford, director of the Office of Drinking Water. "It was a challenge getting to this point, and I am proud of the way Washington communities, my staff, and our funding partners responded to this unique opportunity to make important public health fixes."

For more information, visit us online at <http://www.doh.wa.gov/ehp/dw/economic-rec.htm>

Metaline Mayor Trent Hanson visits an Economic Recovery worksite. Workers are updating Metaline's water system. Photo by Diane Brown, Metaline city clerk.

Fee-for-Service Changes... *(Continued from Page 1)*

- Use a cost-sharing approach based on system size to help small systems afford more review time. For example, systems with fewer than 100 connections could pay for 2 hours of technical assistance or document review and actually receive up to 4 hours of services.
- Streamline the fee-for-service schedule to reduce the number of categories we use. The existing fee schedule is hard to use because of the variety and number of types of projects. Submittals often fit in more than one category, have elements of several different categories, or may not fit in any category. We will develop a simplified list of project types and fit each submittal in the existing fee schedule into this list.
- Track time spent on these activities to identify any big problems with the current fee-for-service schedule. We'll use this data in future fee schedule changes to more accurately reflect actual time required.

For water systems, this means if you submit a high-quality plan, you won't see a change in the fee we charge to review your documents. If you submit a document of such poor quality that our review significantly exceeds the time allowed, we will send it back without doing a formal review. In addition, we will use our current authority to charge an extra fee for projects with more than two submittals (initial and one resubmittal if required).

Sanitary surveys

- Use a cost-sharing approach based on system size that recognizes the benefit of surveys shared by the public water system, state, and federal government. The state and federal government get a benefit from the survey, so we will use federal and state funds to pay 50 percent of the cost for water systems with fewer than 1,000 connections.
- Use data from the time study to update the time we calculate it takes to do sanitary surveys.

We will change the way we calculate the cost of sanitary surveys to better reflect their true cost. Until now, we used 3 hours as the base rate for most surveys. We then charged more for each additional source, reservoir, and so on. Our time study revealed that we actually spend 7 hours on surveys for small water systems serving fewer than 100 connections, and about 15 hours on systems serving 100 to 10,000 connections. On average, it takes another 3 hours to prepare for the survey, travel to the site, and write the sanitary survey report for systems of all sizes. We'll simplify the way we calculate the cost by using the average time for surveys and eliminating the added charges for extra elements.

Lazy Acres wins best-tasting water competition

Lazy Acres, a 97-connection, untreated groundwater system in Thurston County, is Evergreen Rural Water of Washington's "Best-Tasting Water in Washington" winner.

"I loved this water! So refreshing, clear, and no aftertaste! Perfect!" Colleen Myers, one of the three judges exclaimed.

The system is operated by Thurston Public Utility District No. 1, which purchased Lazy Acres in 2005.

The best-tasting water competition is part of the *Quality On Tap!* campaign to emphasize the high quality, standards and, consequently, taste of rural water.

Lazy Acres will represent Washington State in a national contest in Washington, D.C., on February 9, 2010. That competition is part of the Rural Water Rally, an annual legislative event for the National Rural Water Association's 48 state affiliates.

"Because of the quality of this water, Lazy Acres has a good chance at the national taste test," said Gary Rhoades, executive director of Evergreen Rural Water of Washington (ERWOW).

Rhoades announced the state contest winner Sept. 2 at ERWOW's fall conference in Ocean Shores. Water utilities from around the state submitted samples of their water, straight from the tap.

Gary Rhoades, Executive Director of Evergreen Rural Water of Washington (left), presents the 2009 award for Best-Tasting Water in Washington to Kim Gubbe, Operations Manager for Thurston County Public Utility District 1.

"We are really honored to be recognized for the quality of our water," said Thurston County PUD Commissioner Paul Pickett. "We all work hard to achieve the highest standards."

"I always knew their water was the best!" added Kim Gubbe, operations manager for Thurston PUD.

TOP Systems... *(Continued from Page 1)*

consecutive years. Besides meeting the goals, the award winners had to remain free of any drinking water violations during that time.

There are 64 rapid-rate treatment plants now operating in Washington State. A graph showing treatment plants meeting the goals for 2008, is online at <http://www.doh.wa.gov/ehp/dw/Programs/surface_water_2.htm>

In recognition of excellent performance

Bronze Award Recipients	Silver Award Recipients
Three years of continuously optimized performance, 2006-2008	*Five years of continuously optimized performance, 2004-2008*
• City of Chelan Water Department • City of Cusick • Hoquiam Water Department • City of Kelso • Lake Chelan Reclamation District • Stevens Pass Water System • City of Yakima Water Division	• Arlington Water Department • Ferndale • Lake Whatcom Water and Sewer District – South Shore Water System • City of Leavenworth • Pasco Water Department • Skagit County PUD #1 – Judy Reservoir System • Thousand Trails Chehalis

For more information

Read about treatment optimization and some of the tools that we use to help systems succeed in past issues of **Water Tap**: June 2006 (page 18), March 2007 (page 8), and September 2007 (page 14) online at <http://www.doh.wa.gov/ehp/dw/our_main_pages/watertap.htm>

Visit our surface water Web site at <http://www.doh.wa.gov/ehp/dw/Programs/surface_water.htm>

Contact

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Ethan Moseng (253) 395-6770
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Attention water system boards and owners:

Water system operators should be first to know!

Do you talk to your water system operator on a regular and frequent basis? The operator is the person the owner or water system board designates to make decisions about the daily operational activities of the water system. By law, the operator must be in responsible charge of the water system and be available 24 hours a day, 7 days a week. The operator is not just someone who collects the water samples.

The operator needs to know

Boards and owners should inform the operator whenever unusual situations occur, and should include their operator when they plan improvements and respond to emergencies.

Here is an example of what we hear from many frustrated operators: An operator informs her water system board about an unsatisfactory routine coliform sample. They say she did something wrong and caused the sample to fail. They complain about the additional cost of collecting four repeat samples and having them tested. The board is really convinced the operator did something wrong when the four repeat samples are unsatisfactory too.

The operator walks the entire water system looking for a reason the samples failed. She finds fresh dirt where someone worked on a service line. When she reports her findings to the board, they say they already knew about the work. They say, "It was done by a plumber, so it must have been done right." However, the board does not know whether the plumber disinfected the parts, or what precautions he took to prevent waterline contamination. As it turns out, the system gets a water quality violation, which requires public notification and additional samples the following month.

Informed operators can lower operational costs

When operators don't know about work on the system until after coliform samples are unsatisfactory, they have to spend more time identifying and resolving the problem. If the operator in the example had known a plumber worked on the system, she would not have collected the routine sample until she was satisfied the water system had not been contaminated. If she suspected contamination, she could have disinfected and flushed the water system and collected investigative samples first.

Many situations affect the quality or quantity of the drinking water your system provides to customers. But, all too often, operators must call us to report problems that occurred when work was done on the water system, there was a power outage, or a line break—but the operator was not notified.

Many good operators require that they be present when work is being done. They do that to:

1. Comply with the requirements of their waterworks certification as the operator in responsible charge.
2. Ensure the work is done properly.

For example, improperly installed reservoir floats, meters, water lines, pumps, and other water system repairs and improvements can easily contaminate a water system. During a power outage, water lines can lose pressure, allowing contaminants to enter. Your operator will make sure proper disinfection procedures are followed during and after these situations.

Boards or owners should give operators answers to these questions

- Why is the work planned? What problem will it resolve? What will it improve?
- What is the scope of work? Does the project need Department of Health approval? Will the project affect the way the operator runs the system?
- When is the work scheduled? How long will it take?
- Who will do the work? Are they qualified? How will they prevent contamination?

Your operator's job is to make sure your system is operating correctly and providing safe drinking water. An informed operator can keep your system in compliance with regulations and help lower operational costs. So, make sure your operator is first to know about any planned work or unusual situations that occur at the system.

Waterworks Operator Certification Rule

The Department of Health Office of Drinking Water is beginning rulemaking on the Waterworks Operator Certification Rule, chapter 246-292 WAC.

We need to update the rule to add changes the 2009 Legislature made in chapter 70.119 RCW. The changes:

- Strengthen our authority to take immediate enforcement actions in cases of gross negligence.
- Clarify our authority to certify backflow assembly testers and cross-connection control specialists.
- Amend the definition of a "Group A public water system" to be consistent with other related statutes.
- Add a reference to the specialty plumbers licensing requirements that cover some activities performed by backflow assembly testers licensed under chapter 18.106 RCW.

We are also looking at changes that:

- Address large public water system recruitment issues to allow broader substitution options for minimal education requirements.
- Add a new definition and requirements for "responding in a timely manner" to set a reasonable response time for contract operators during an emergency.
- Revise temporary certification requirements for surface water treatment plant operators.
- Evaluate existing program guidelines for possible adoption into the rule.

We will work with the Waterworks Operator Certification Advisory Committee to develop a draft rule. We will ask for comments from related associations and training partners, certified waterworks operators, Group A water systems, and interested parties. We will conduct an informal review of the draft rule during workshops to get comments from stakeholders.

For more information

If you have questions about the Waterworks Operator Certification Rule, call Cheryl Bergener, program manager, at (360) 236-3137 or (800) 525-2536 Ext. 3.

If you have questions about rulemaking, call Theresa Phillips, lead rules coordinator, at (360) 236-3147, e-mail theresa.phillips@doh.wa.gov or visit our Rules and Laws Web site at <http://www.doh.wa.gov/ehp/dw/our_main_pages/regula.htm>

Join the Rulemaking Listserv

Visit our Web site at <http://www.doh.wa.gov/ehp/dw> Scroll to the bottom of the page and click on "Drinking Water Rules."

Other current rulemaking

- Federal Rule: Groundwater Rule
  Federal Rule: Lead and Copper Rule Short-term Revisions
- Drinking Water Laboratory Data Reporting Rule
- Group B Public Water Systems

Group A Public Water Supplies Publication

We updated **Group A Public Water Supplies, chapter 246-290 WAC (331-010)**. This publication is available only online. You can download the document from our Web site at <https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm>

Check the date!

Make sure you're using the most recent version. DO NOT use the July 2008 version of this publication. It is out-of-date!

Civil Penalties and Compliance Tools

Maybe you already know that civil penalties are one of the Office of Drinking Water's (ODW) compliance tools. When water system owners and operators won't follow the drinking water regulations, we intend to impose penalties more frequently to bring them into compliance.

Our first goal is to educate and provide technical assistance to help systems and operators achieve success in providing safe and reliable drinking water. When these efforts fail, we can take stronger actions to ensure compliance and protect water system consumers. Penalties can be as high as $5,000 per day for each violation.

Since the law went into effect in 1986, we have issued more than 175 individual penalties. In the past year, we issued penalties—ranging from $2,600 to more than $12,000—to investor-owned utilities, an association, a water system operator, and a private water system owner.

Along with the authority to issue penalties, we can suspend or revoke an operator's certification. During the last five years, we suspended four operators and revoked the certification of three others.

Although we hate to have to resort to them, penalties, suspension, and revocation are effective tools available to us. We take these actions against system owners and operators that refuse to comply with drinking water rules and place consumers in jeopardy.

When necessary, we will use all the tools at our disposal to bring about compliance and protect public health.

For more information

Visit ODW online at <http://www.doh.wa.gov/ehp/dw/>

Call your ODW regional office or the Operator Certification Program:

Eastern Region, Spokane Valley	(509) 329-2100
Northwest Region, Kent	(253) 395-6750
Southwest Region, Tumwater	(360) 236-3030
Operator Certification Program	(800) 525-2536

We are reviewing operator contracts

Washington residents rely on certified waterworks operators, public water systems and the Office of Drinking Water to ensure they have safe and reliable drinking water. Some operators sign contracts to operate water systems that are too small to hire full-time certified operators.

We are reviewing all the operations contracts we received from contract operators to ensure they comply with Certification Program rules and guidelines. We want to make sure contracts are complete and include the following public health-related duties for the operator in responsible charge of the water system:

1. Ensure all daily operational and maintenance activities are completed according to acceptable public health practices and water industry standards.
2. Monitor water quality, maintain records, and take follow-up action needed to comply with drinking water regulations.
3. Implement preventive maintenance programs.

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What is a contract operator?

An operator who's responsible for the daily operational activities of three or more public water systems.

What is required to be a contract operator?

- At a minimum, be certified as a water distribution manager 1 or higher and cross-connection control specialist.
- Be available on a 24-hour basis.
- Send a copy of each operations contract to the Waterworks Operator Certification Program within 30 days of the effective date.

The Groundwater Rule is here!

The new federal Groundwater Rule (GWR) is designed to prevent waterborne disease from groundwater sources. The U.S. Environmental Protection Agency (EPA) started implementing the GWR December 1, 2009. EPA will oversee the rule until the Office of Drinking Water (ODW) adopts it.

We plan to begin oversight in the fall of 2010. In the interim, we expect your system to follow the GWR requirements. We will do our best to inform you of those requirements.

The GWR applies to these water systems

- All systems with one or more groundwater sources (wells or springs) that are not under the influence of surface water.
- Systems that purchase groundwater from another system.
- Systems with both surface water and groundwater sources (except where all groundwater is combined with surface water or groundwater under the influence of surface water prior to treatment).

Three types of GWR monitoring

1. **Triggered Monitoring:** This monitoring links closely to routine coliform monitoring under the Total Coliform Rule. Continue to collect your routine coliform sample(s) from the distribution system as you do now. If a routine sample is total coliform-positive, the GWR requires you to collect a sample from each source in use at the time you collected the unsatisfactory sample. You must collect samples from the source prior to treatment and test them for *E. coli* within 24 hours after you're notified of the unsatisfactory sample.

System specific triggered-monitoring steps

If you get a total coliform-positive routine sample:

- **Untreated systems serving fewer than 1,000 people:** Collect 4 repeat samples—3 from distribution and 1 from the source. If you have more than one source, call us for guidance.
- **Untreated systems serving more than 1,000 people:** Collect 3 repeat samples from distribution. Collect 1 sample from each source*.
- **Systems with treatment, but not 4-log virus treatment**:** Collect 4 repeat samples (3 if your population exceeds 1,000) from distribution. Collect 1 sample from each source* prior to treatment.
- **Systems with 4-log virus treatment**:** If you choose to do triggered monitoring (see Compliance Monitoring below), collect 4 repeat samples (3 if your population exceeds 1,000). Collect 1 sample from each source* prior to treatment.

** Mark the lab slip for the source sample as "Raw Water," include the source number, and in the comments section write, "Groundwater source sample – test for E.coli".*

***4-log virus treatment is typically disinfection to inactivate viruses using a combination of chlorine and time before the first customer. For most groundwater in Washington, the current disinfection requirement of CT 6 is equivalent to 4-log virus treatment.*

2. **Compliance Monitoring:** A groundwater system that provides 4-log treatment (99.99 percent virus inactivation or removal) may choose compliance monitoring at that source instead of triggered monitoring. This means the system must consistently maintain a chlorine residual high enough to maintain 4-log treatment prior to the first customer. The system must monitor the chlorine residual daily, or continuously if the population exceeds 3,300. Systems that choose compliance monitoring should contact their ODW regional office and submit a request with documentation of 4-log treatment as soon as possible.
3. **Assessment Monitoring:** We may determine that a groundwater source is at risk of fecal contamination and could be a public health concern. In that case, we may require a system to test their source for *E. coli* at least once a month for one year. We will notify systems individually if assessment monitoring will be required.

If you find *E. coli* in your source

If you find *E. coli* in your source water, you must take corrective action specific to your system and the situation. You may be required to correct deficiencies, provide an alternate source of water, eliminate the source of contamination, or provide reliable treatment. You must notify customers within 24 hours and

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What you should do now

- Make sure you have a sample tap at every source, prior to treatment.
- If you have 4-log virus treatment and want to do Compliance Monitoring, contact your ODW regional office right away to confirm that your system is eligible.
- Make contact with systems that you sell water to or receive water from. Know who to contact and have multiple names and phone numbers on hand.
- Next time you update your WFI, please include your e-mail address. If a routine sample is unsatisfactory, this helps us to inform you of your next steps.
- Prepare for an *E. coli* presence at your source. Plan ahead!

Training and Education Calendar: December 2009 - March 2010

Date	Topics	Location	Contact	Phone #	Cost/CEU
Dec. 3	BAT 1 Day Professional Growth Exam Review	Kennewick	ERWOW	1-800-272-5981	$105/$130/0.7
Dec. 3	Refreshing your Emergency Response Plan	Kenmore	ERWOW	1-800-272-5981	$105/$130/0.7
Dec. 3-4	Backflow Assembly Tester Lab	Auburn	WETRC	1-800-562-0858	$235/NA
Dec. 4	Confined Space Training	Yakima	ERWOW	1-800-272-5981	$105/$130/0.7
Dec. 7-9	Backflow Assembly Tester Refresher	Auburn	WETRC	1-800-562-0858	$350/2.1
Dec. 8	Air Valves for Flow Efficiency and Surge Control	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 8	Backflow Assembly Tester for Cross Connection Control	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 8	Professional Growth Wrap-up 2009	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 8	Water Distribution Specialist 1 Day Exam Review	Ellensburg	ERWOW	1-800-272-5981	$105/$130/0.7
Dec. 8-10	Pump Operation & Maintenance	Everett	WETRC	1-800-562-0858	$325/2.1
Dec. 8-11	Backflow Assembly Tester Certification Exam Prep	Shelton	ERWOW	1-800-272-5981	$420/$445/2.8
Dec. 9	Professional Growth Wrap-up 2009	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 9	In-Water Portable Water Reservoir Cleaning & Rehabilitation	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 9	Unidirectional Flushing for Water Quality	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 9-10	CEU Roundup	Ellensburg	ERWOW	1-800-272-5981	$210/$235/1.4
Dec. 9	Water Works Basics	Yakima	WETRC	1-800-562-0858	$295/2.1
Dec. 10	Centrifugal Pump Hydraulics & Pump Selection Process	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 10	Professional Growth Wrap-up 2009	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 10	Stored Energy/Develop Lock-Out Block-Out Tag-Out Proced	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 11	Professional Growth Wrap-up 2009	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 11	Surface Water Treatment for Operators	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 12	Reading Blueprints, Engineering Drawing & Maps	Kent	WETRC	1-800-562-0858	$69/0.3
Dec. 14-16	Backflow Assembly Tester Refresher	Auburn	WETRC	1-800-562-0858	$350/2.1
Dec. 14-16	Backflow Assembly Tester Refresher	Spokane	WETRC	1-800-562-0858	$350/2.1
Dec. 15	Basic Water Chemistry	Lacey	ERWOW	1-800-272-5981	$105/$130/0.7
Dec. 15	Refreshing your Emergency Response Plan	Vancouver	ERWOW	1-800-272-5981	$105/$130/0.7
Dec. 17-18	Backflow Assembly Tester Lab	Auburn	WETRC	1-800-562-0858	$235/NA
Jan. 11-15	Backflow Assembly Tester Certification Class	Auburn	WETRC	1-800-562-0858	$665/3.7
Jan. 12	Water/Wastewater Ops & Compliance Reporting Made Easy	Tacoma	ERWOW	1-800-272-5981	Free/0.4
Jan. 12-14	Water Distribution Certification Exam Review	Auburn	WETRC	1-800-562-0858	$305/2.1
Jan. 19-21	Cross-Connection Control Specialist Exam Review	Olympia	ERWOW	1-800-272-5981	$235/$285/2.1
Jan. 26-28	Water Distribution Manager Certification Exam Review	Olympia	ERWOW	1-800-272-5981	$235/$285/2.1
Jan. 26-28	Water Distribution Certification Exam Review	Longview	WETRC	1-800-562-0858	$305/2.1
Feb. 2	WAC Review	Olympia	ERWOW	1-800-272-5981	$115/$140/0.7
Feb. 4	Cross-Connection Control Specialist Exam Review	Yakima	ERWOW	1-800-272-5981	$115/$140/0.7
Feb. 8-12	Backflow Assembly Tester Certification	Spokane	WETRC	1-800-562-0858	$665/3.7
Feb. 9	Water Distribution Manager Certification Exam Review	Moses Lake	ERWOW	1-800-272-5981	$115/$140/0.7
Feb. 10	Water/Wastewater Ops & Compliance Reporting Made Easy	Ellensburg	ERWOW	1-800-272-5981	Free/0.4
Feb. 16-18	Evergreen Rural Water of WA's Annual Conf & Trade Show	Yakima	ERWOW	1-800-272-5981	$145/$175/1.5
Feb. 23-25	Water Treatment Plant Operator Exam Review	Olympia	ERWOW	1-800-272-5981	$235/$285/2.1
March 3	Confined Space Entry	Shelton	ERWOW	1-800-272-5981	$115/$140/0.7
March 4	Cross-Connection Control Specialist Exam Review	Shelton	ERWoW	1-800-272-5981	$115/$140/0.7
March 11	Water/Wastewater Ops & Compliance Reporting Made Easy	Friday Harbor	ERWOW	1-800-272-5981	Free/0.4
March 22-25	Washington Operators Workshop	Wenatchee	WETRC	1-800-562-0858	$175/TBD
March 23-25	Water Distribution Manager Certification Exam Review	Moses Lake	ERWOW	1-800-272-5981	$235/$285/2.1

Our training calendar is updated quarterly; please visit the additional training links for current information.

For information about distance learning activities, call Washington Certification Services, Green River Community College at (877) 780-2444.

Additional Training Links:

AWWA King County Subsection Web site <**http://www.kcawwa.org/**>

ERWOW Web site <**http://www.erwow.org/**>

WETRC Web site <**http://www.wetrc.org/**>

AWWA Pacific Northwest Section Web site <**http://www.pnws-awwa.org/**>

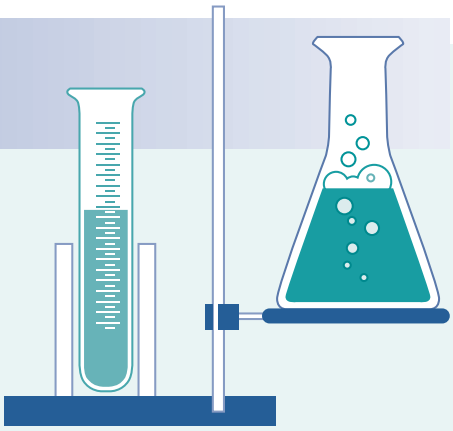
EPA Electronic Workshops Web site <**http://www.epa.gov/safewater/dwa/electronic.html**> (No CEU assigned to these courses.)

Partnership for Water Conservation <**http://www.partners4water.org**>

For the complete Training Calendar, visit the Drinking Water Homepage and click on Training - <http://www.doh.wa.gov/ehp/dw>

NOTE: Links to external resources are provided as a public service and do not imply endorsement by the Washington State Department of Health.

LAB CORNER



EPA approves 25 additional testing methods

On November 10, 2009, the U.S. Environmental Protection Agency (EPA) approved 25 additional testing methods for use in measuring contaminant levels in drinking water and determining compliance with national primary drinking water regulations. EPA used an Expedited Method Approval Process, based on authority granted by the Safe Drinking Water Act.

The process provides laboratories and water systems more timely access to new alternative testing methods, thereby reducing costs while maintaining public health protection.

Methods approved through this process must be for contaminants that water systems are already required to sample for, and must be equally effective as existing approved methods. For more information on this announcement, visit EPA online at <http://www.epa.gov/safewater/methods/index.html>

Lab Slip Tip

Water Systems: Correct Source Number is Important

If you only have only one active source, do not assume its source number is S01. Your source information is on your Water Facilities Inventory (WFI). It is a good idea to review your WFI at least annually to ensure all the information is correct.

To ensure your water system gets credit for the samples you submit, you must give us the correct source number. Source water monitoring requirements are based on the sources you identify on your WFI as active, permanent, or seasonal. Inactive, emergency, and decommissioned sources will not have monitoring requirements, but they will still be on your WFI.

Community and nontransient noncommunity systems get Water Quality Monitoring Reports that should list each source and specific sample requirement by test panel. You may want to fill out most of the information on the lab slip before you leave the office, so you have access to these records. Before you submit your sample to the lab, quickly confirm all the required information is complete.

New & Revised Publications

Timely and Reasonable Water Service (331-444). New. 4 pages discuss two Washington State laws that govern new water service and address the concept of providing "timely and reasonable" water service.

Measuring Free Chlorine (331-442). New. 2-page brochure describes the DPD colorimetric and ITS test strip methods of testing for free chlorine.

Water System Service Capacity in Equivalent Residential Units (ERUs) (331-441). New. 3 pages explain what an ERU is, and the basic water system components that apply to ERU determinations.

Service area policies (331-438). New. 2-page fact sheet explains what to consider when developing service area policies for your water system.

Small Public Drinking Water Systems (331-437). New. 52-page report to the Legislature summarizes a statewide review of small public drinking water systems that have – or may in the future require significant state resources to resolve – urgent threats to public health and safety.

Source Water Sample Taps (331-436). New. 4 pages explain how to install groundwater source sample taps required to meet the new Groundwater Rule.

Calibrating turbidity meters (331-404). Revised. 2-page fact sheet explains how to check the accuracy of a turbidimeter.

Municipal Water Law: Expanding a Water Right's Place of Use (331-367). Revised. 2-page fact sheet explains how a municipal water supplier can expand its water right's place of use to a service area identified in a Department of Health-approved planning or engineering document.

Group A Public Water Supplies: Chapter 246-290 WAC (331-010). Revised. This rule for Group A Systems, also known as the "Blue Book," is available in electronic format only.

Computer-based testing for waterworks certification (331-424). Revised. 4 pages explain the benefits of computer-based exams for operator certification and how operators can apply to take them.

For copies of our publications, call (800) 521-0323 or visit the Web site at <https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm>

Use our Listserv to get e-mail copies of new and revised publications. Sign up at <http://listserv.wa.gov/cgi-bin/wa?SUBED1=wa-drinkingwaterpub&A=1>

Implementing the New Disinfection Byproducts Program

The Office of Drinking Water adopted the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 Rule). We will begin enforcing the rule January 4, 2010. The purpose of the rule is to prevent potential cancer, and reproductive and developmental health problems that may be linked with exposure to high levels of disinfection byproducts (DBP) in drinking water.

The Stage 2 Rule applies to all community and nontransient noncommunity (NTNC) Group A water systems that deliver water continuously treated with a primary or residual disinfectant other than ultraviolet light. The Stage 2 Rule does not apply to water systems that only use these disinfectant chemicals temporarily, such as after facility cleaning or repair.

The rule may require water systems to change the number of samples they take for total trihalomethanes and haloacetic acids and the locations where they collect the samples.

We sent a letter to affected water systems this fall to explain what our records show for them and the upcoming deadlines they must meet under the Stage 2 Rule. The next approaching deadline is January 1, 2010, when water systems serving between 10,000 and 49,999 people must submit an Initial Distribution System Evaluation (IDSE) report to us, if applicable.

Many water systems do not have any requirements under the Stage 2 Rule for several years. We plan to send additional letters to those water systems as those deadlines approach. The table below summarizes due dates.

Stage 2 Rule Implementation Dates

Population[1]	Submit Standard Monitoring Plan, System Specific Study Plan, 40/30 Certification, or Receive Very Small System Waiver	Complete Standard Monitoring or System Specific Study	Submit IDSE[2] Report	Begin Routine Monitoring According to Stage 2 Rule
≥ 100,000	October 1, 2006	September 30, 2008	January 1, 2009	April 1, 2012
50K – 99,999	April 1, 2007	March 31, 2009	July 1, 2009	October 1, 2012
10K – 49,999	October 1, 2007	September 30, 2009	January 1, 2010	October 1, 2013
< 10,000[3]	April 1, 2008	March 31, 2010	July 1, 2010	October 1, 2013[4] October 1, 2014[5]

1. If water systems have non-emergency interties with other water systems, they must comply with the dates associated with the largest water system in their combined distribution system.
2. An Initial Distribution System Evaluation report is not required from water systems with a 40/30 certification or a waiver.
3. NTNC water systems this size do not need to do an IDSE. They must only do routine monitoring.
4. Surface water systems that do not have to do *Cryptosporidium* monitoring under the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) and groundwater systems.
5. Surface water systems that also do *Cryptosporidium* monitoring under LT2ESWTR.

For more information, call our regional office or our state DBP Program Coordinator:

Eastern Region, Spokane	Ed Parry	(509) 329-2123
Northwest Region, Kent	Jolyn Leslie	(253) 395-6762
Southwest Region, Tumwater	Regina Grimm	(360) 236-3035
DBP Program Coordinator	Ethan Moseng	(253) 395-6770

EPA posted a variety of guidance documents online at <http://www.epa.gov/safewater/disinfection/stage2/compliance.html#pws> Detailed compliance instructions are in **Complying with the Stage 2 Disinfectants and Disinfection Byproducts Rule: Small Entity Compliance Guide.**

Sanitary Surveys

Identify and address significant deficiencies

The Groundwater Rule places specific focus on significant deficiencies discovered during sanitary surveys.

Significant deficiencies are defects in water system design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that could cause contamination in the water. If the system does not address a significant deficiency, it could cause a health risk to people consuming the water.

Common significant deficiencies

Wells:

- Unsealed openings in the well cap or casing.
- Unsealed opening in the well cap that electrical wires go through.
- Unscreened vents.
- Potential sources of contamination close to a vulnerable well (such as chemicals, sewer lines, drainfields, septic tanks).
- Wells at risk of being submerged.

Reservoirs:

- Holes in the reservoir.
- Improperly constructed vent. Vents must face downward and be screened.
- Improperly constructed or sealed access hatches. Hatch lids should lap over a raised curb and have a watertight seal.
- Missing or inadequate screen or flapper valve on the end of the overflow line.
- Overflow line does not discharge to daylight or connects directly to a storm drain or sewer line without an air gap.

Preventing significant deficiencies

We encourage water systems to include self-inspections in their regular operations and maintenance program. Your self-inspection checklist should include the common significant deficiencies listed above. Correcting these deficiencies as they occur will reduce health risks to customers and help you avoid surprises when we conduct a sanitary survey of your water system.

Water systems should maintain records of self-inspections. Particularly helpful are photos of reservoir overflows, vents, screens, hatches and seals, or other facilities our inspectors may not be able to readily access during a survey.

When sanitary surveys identify a significant deficiency

The surveyor will clearly identify any significant deficiencies found in a sanitary survey letter or report. You will have about 45 days to correct the deficiency. If a deficiency cannot be corrected in this timeframe, we will require a proposed plan and schedule for correcting the significant deficiency. We track significant deficiencies in our data system to ensure systems address them.

For more information, please visit our sanitary survey program Web site at <http://www.doh.wa.gov/ehp/dw/Programs/sanitary_survey.htm>

Operator contracts... *(Continued from Page 7)*

4. Review recording-instrument readings and laboratory tests, and adjust treatment processes accordingly.
5. Implement a cross-connection control program.
6. Determine and implement remedial actions in emergencies. This includes following DOH directives to address the situation.
7. Be available 24 hours per day (voicemail, cell phone).

The Certification Program is working with contract operators to update or amend contracts that don't meet the above criteria.

For more information, visit us online at <http://www.doh.wa.gov/ehp/dw> or call the Certification Program (360) 236-3145 or (800) 525-2536 Ext. 4.

Water Use Efficiency

2010 Reporting Changes

We are entering a new era of information technology for water use efficiency (WUE). Next year you will fulfill the annual reporting requirement by submitting your WUE data through a new online database. The database will make it possible for the public to see what other water systems are doing to achieve water efficiency.

It's easy to submit the WUE Report

1. Visit the WUE Web site at <http://www.doh.wa.gov/ehp/dw/programs/wue.htm>
2. Look for the "submit the annual WUE report" link.
3. Fill in the necessary information.
4. Hit the submit button.

You will receive an e-mail when you successfully submit your annual report. At that point, your information, along with every other WUE report, will be available to the public online. Remember, you must submit your annual WUE report to us through the new database. We no longer accept faxes, e-mails, or mailed reports.

You must also report to your customers. Most water systems fulfill this requirement by including WUE data in their Consumer Confidence Reports.

Late or Incomplete Reports

In 2009, many water systems did not have all the information requested in the report. Don't let that stop you from submitting the information you do have. Some information is better than no information at all. For example, if you haven't established goals, tell us why. We want to know what you have done so far and we want to offer technical assistance where it is needed. Also, if you haven't submitted your annual report, which was due July 1, it's better to send it late than never.

Confused About Reporting?

Many smaller publicly owned water systems incorrectly thought they didn't have to report this year. The Municipal Water Law lawsuit and the fact that we gave them until July 1, 2010, to establish WUE goals were common reasons for this misunderstanding. Beginning in 2009, every publicly owned municipal water supplier must submit an annual WUE report. If you received a Failure to Report Notice in September, we are tracking your water system as a municipal supplier and you must report every year.

If you have questions about WUE, call Mike Dexel, water resource lead, at (360) 236-3154 or e-mail michael.dexel@doh.wa.gov

Groundwater rule... *(Continued from Page 8)*

the system will likely be on a boil-water advisory until you complete the corrective action.

What else should I know?

- Part of the GWR relates to sanitary surveys of groundwater systems. It says you must correct "significant deficiencies" identified in your survey within 120 days of notification or have a plan in place to correct the deficiency. A significant deficiency is one that could affect public health. We will define a list of deficiencies in our GWR rule.
- If you chlorinate, you must continue to check the chlorine residual in your system and send Chlorine Residual Reports to us each month.
- If you sell or receive water and there is an unsatisfactory sample in either distribution system, groundwater source samples are still required. If you receive water, you must notify the wholesaler within 24 hours. Wholesalers that receive notification about an unsatisfactory routine sample in a service area, or in a distribution system that purchases their water, must collect a source sample prior to treatment within 24 hours from all sources in use at the time that the unsatisfactory distribution sample was collected.
- It will be possible to create a triggered Source Water Monitoring Plan for systems with multiple sources. Stay tuned for more information.

For More Information

- Read the Groundwater Rule at <www.epa.gov/safewater/disinfection/gwr>
- Margo Partridge will oversee compliance at EPA. Call her at (360) 753-9459.
- Call the Coliform Program staff at our regional office:

Eastern Region, Spokane Valley	(509) 329-2100
Northwest Region, Kent	(253) 395-6750
Southwest Region, Tumwater	(360) 236-3030

- See **Source Water Sample Taps (331-436)** and **Measuring Free Chlorine (331-442)** online at <https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm>

Contaminant of the Quarter

Arsenic Treatment Considerations

Many water systems in Washington installed treatment or took other actions to comply with the new maximum contaminant level for arsenic (0.010 mg/L). But installing treatment doesn't mean the treatment will be effective. We hope the following arsenic treatment points will help you make good choices—and save money.

Hire a design engineer

Be sure to work with a design engineer experienced in arsenic mitigation and treatment. You want to consider all costs – design, capital, construction, operations, maintenance (including media replacement), and waste disposal if required.

Options other than treatment

Check whether non-treatment alternatives will work. If you have two or more sources, you may be able to blend them to lower arsenic levels at the entry point to the distribution system. Perhaps you can stop using the source, or use it on a seasonal basis. Or maybe you can develop a new source. These options might be feasible and cost less than treatment.

If you have to install treatment to remove arsenic, you can increase your chances of treatment success and money savings by:

- Fully assessing raw water quality.
- Correctly measuring raw water pH.
- Carefully considering media longevity.
- Using small-scale pilot testing.

Raw water quality

Raw water quality parameters must be completely and accurately assessed. Some water parameters can interfere with arsenic treatment or make it ineffective. Be sure to work with your design engineer and treatment manufacturer to generate complete raw water quality information. At a minimum, measure the following parameters: iron, manganese, sulfate, phosphate, silica, vanadium, alkalinity, pH, hardness, and the oxidation state of the arsenic.

We've noticed that systems often measure pH incorrectly. Measure pH in the field—not at the lab—because pH changes. Use an accurate pH instrument. Swimming pool test kits are not good enough. Take multiple measurements to be accurate.

Filter media longevity

Several treatment technologies use a filter media to bind arsenic. So, find out if the engineer's rationale for using the specified media is based on cost, longevity, effectiveness, or availability. Asking these questions in the design phase might spare you surprises later. If raw water parameters are not accurately evaluated, you might get the wrong filter or the filter media may saturate too soon.

Pilot study

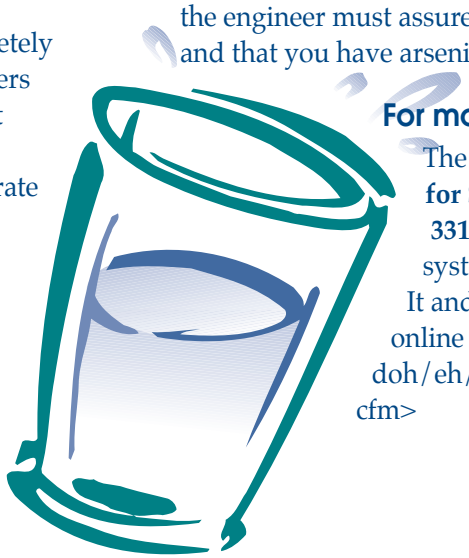
For most treatment, you'll need a pilot study. Using a scaled-down version of the treatment facilities will tell you whether it will work and reveal potential pitfalls before you invest in full-scale treatment. You want to know whether the proposed treatment can work effectively over a period of time—before you invest your money.

Treatment Design

If treatment is necessary, ask the design engineer and treatment manufacturers: "How will I know that the treatment system is operating properly or how will I know it is working?" Having a good answer to this question will help lead you down the right path.

You must submit the proposed design to us for approval prior to installation. We can point out potential design flaws.

If your installed treatment doesn't work, don't stop trying. Have the design engineer assess the situation and make the necessary design changes so that your treatment works. Before the design is certified complete, the engineer must assure you that the treatment works—and that you have arsenic levels below the MCL.



For more information

The publication, **Arsenic Treatment for Small Water Systems (DOH 331-210)**, provides guidance for systems with 1,000 people or less. It and other helpful publications are online at <https://fortress.wa.gov/doh/eh/dw/publications/publications.cfm>

2010 Drinking Water Week Awards Nomination Form

In celebration of Drinking Water Week, May 2-8, 2010, the Department of Health Office of Drinking Water will recognize water systems and operators for their commitment to provide safe and reliable drinking water.

Do you know of a water system or waterworks operator that deserves recognition? Tell us about it. Complete this form and attach it to a one-page written summary. The summary needs to include convincing information about why the system or operator you are nominating should be selected for recognition. You may also include additional information, such as newspaper clippings and other supporting documents. All nominations must be in writing.

We will review nominations and our director's management team will make final selections. Award winners will be honored during Drinking Water Week. If you have questions, please contact Donna Lynch at the address below.

Category *(please check one):*

- ☐ **Most Improved**—This award is typically presented to water systems that have overcome a bad situation and are now providing excellent service to their customers.
- ☐ **Grace Under Pressure**—Recognition for handling a crisis well.
- ☐ **Going Above and Beyond**—Recognition for providing assistance to neighboring water systems, the community, the state Department of Health, and others.
- ☐ **Operator of the Year**—This award is to recognize an individual water system operator for his or her part in providing safe and reliable drinking water.
- ☐ **Lifetime Achievement**—This award is to recognize an individual water system operator for dedication and commitment during his or her career.

Information about Nominee

Name of System/Individual: _____

_____

City/County: _____

Type of System: ☐ Community ☐ TNC ☐ NTNC ☐ _____

Number of Service Connections: _____

Form Completed by: _____

Name: _____

Title: _____

Representing: _____

City: _____ Phone: _____

Email: _____

Nominations must be received by January 29, 2010.

Send nominations to:
Donna Lynch, Office of Drinking Water
PO Box 47822, Olympia, WA 98504-7822
FAX: (360) 236-2252 • E-mail: donna.lynch@doh.wa.gov

Don't forget to attach supporting information!

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

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Did you know?

Our Web site has information and resources available to help you! You can find information about:

- Drinking Water Programs
- Staff contacts
- Rules
- Policies
- Training
- Publications
- Water system data
- Five ListServs

Visit the Office of Drinking Water online at <http://www.doh.wa.gov/ehp/dw/>

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Waterworks Operator Renewal Questions?

Do you have questions about the status of your renewal?

- Why haven't I received my renewal notice?
- Did DOH receive my renewal payment?
- Why haven't I received my validation card?
- My employer said they paid my renewal – did they?

To officially verify that your renewal has been paid, please contact Larry Granish. It is far better to take a little time to call our office than to receive a letter in March informing you that your waterworks operator certification was inactivated because your renewal was not paid.

If you have any question about the status of your renewal, call Granish at (800) 525-2536, Ext. 1 or e-mail larry.granish@doh.wa.gov

In This Issue

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

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

Mary Selecky, Secretary of Health

Gregg Grunenfelder, Assistant Secretary of Health
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Comments, questions, story ideas, articles and photographs submitted for publication are welcome. Please address correspondence to Linda Waring, Water Tap, Office of Drinking Water, P.O. Box 47822, Olympia, WA 98504-7822, or e-mail linda.waring@doh.wa.gov. Past issues are available by contacting the editor or visiting the Web site at <http://www.doh.wa.gov/ehp/dw/our_main_pages/watertap.htm>