



WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

Get Involved Now

Water Use Efficiency (WUE) Rule Development



Volume 21, #3 - June 2005

Imagine going to your kitchen sink to get a glass of water, and when you turn on the tap nothing is there. Most residents of our state take for granted that we will have an endless supply of water. Look around us...there sure seems to be a lot of it.

The current drought conditions have drawn attention to the fact that this natural resource is not an endless supply, but even before this recent dry spell we have known there are competing demands for water – growing communities, fish, industry and agriculture.

The Municipal Water Supply - Efficiency Requirements Act, better known as the Municipal Water Law (MWL), directs DOH to:

- ◆ Develop conservation planning requirements based on existing guidance.
- ◆ Set a state distribution system leakage standard.
- ◆ Develop criteria for conservation goal setting and performance reporting.

In 2003, as part of the MWL, the state Legislature directed the Department of Health (DOH) to create a water use efficiency rule by December 2005. The proposed rule will apply to most Group A community water systems with 15 or more connections. The rule will also affect certain non-community systems that use water for residential purposes.

DOH first convened a stakeholder committee to provide advice on the rule (see page 9 for a list of committee members). The report

to DOH from the stakeholder committee is online at:

<http://www.doh.wa.gov/ehp/dw/WSAC.htm>

DOH also considered input from other concerned groups, 2004 Drinking Water Seminar attendees, and DOH staff in drafting the rule. The proposed draft rule and fact sheets summarizing the draft rule will be online at http://www.doh.wa.gov/ehp/dw/municipal_water/municipal_water_law.htm

Proposed water use efficiency regulatory elements

Most utilities have been doing some conservation without even realizing it (*i.e.*, leak detection and repair). For a snapshot of how the draft rule might affect municipal water suppliers, see the table on pages 10-11 that shows current conservation tasks as regular text and the proposed new requirements as **bolded text**.

All MWS have new requirements because of the MWL. DOH has proposed these requirements with consideration given to system size and complexity. Large systems already address many of the proposed elements within the current planning program.

How to get involved with the current rule development

Between now and mid-July, DOH would like you to review the draft rule and get your comments and suggestions to us during the informal comment period. We will be making presentations to targeted audiences.

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THE DIRECTOR'S COLUMN

BY DENISE ADDOTTA CLIFFORD



On April 10, Governor Christine Gregoire authorized a statewide drought emergency. Governor Gregoire based her drought declaration on extremely low snow pack in the mountains and record low

flows in rivers and streams throughout the state.

Even though it's raining as I write this column, at the end of April, meteorologists tell us it's unlikely we'll get enough rain this spring to avoid drought conditions later in the summer.

The Office of Drinking Water is gearing up to help water systems respond to the drought. We have hired a drought coordinator to provide technical assistance to at-risk water systems. We will also help systems in need apply for emergency grants and loans through the state's drought assistance funds.

We do not yet know which systems will be most vulnerable this year. Each water system is unique, and neighboring systems may experience the drought very differently depending on their sources of water, their water storage capability, the condition of their facilities, and so forth.

The reality is, even in a non-drought year, our water supply is a finite resource that must be carefully managed to meet the needs of growing communities, agriculture, industry, and salmon and other fish.

The Washington Legislature recognized this fact when, as part of the 2003 Municipal Water Law, it charged the Department of Health with adopting

water use efficiency rules for all municipal water suppliers.

This summer, we will be circulating a proposed water use efficiency rule. The proposal will include, among other things, mandatory provisions for water conservation plans, distribution system leakage standards, public goal-setting, and conservation performance reporting. This rule, once adopted, will require a new level of accountability from water utilities to ensure as little waste as possible.



We've been working on this rule for the past year, along with an advisory committee made up of public water systems, business groups, environmental groups, other state agencies, water customers, and others.

Our goal is to develop a rule that is fair and workable for water systems and their customers, while still meeting the Legislature's intent for water conservation. I urge you to review the draft rule (see article, page

1), and let us know what you think.

Meanwhile, at the Office of Drinking Water, we stand ready to help you make the most of your water supply, during this year's drought and in the years to come.

Washington Drinking Water Week Awards

In May, the state Department of Health gave awards to three water systems and a seasoned operator for their commitment to providing our state with safe, reliable drinking water. The South Whidbey School District, Snohomish Public Utility District, Sentinel Gap Water Association and the Willapa Valley Water District manager were recognized during Drinking Water Week, May 1-7, 2005.

“It is a pleasure to honor these systems for their outstanding efforts,” said Denise A. Clifford, Office of Drinking Water director. “They have gone above and beyond, and deserve recognition.”

South Whidbey School District - The South Whidbey School District water system on Whidbey Island provides drinking water to 1,700 students and staff. The school district is recognized for taking an active role in educating students, teachers and the community about lead last fall after finding it in the schools’ drinking water.



Close to 400 students, teachers and staff participated in the award presentation to the South Whidbey School District. Accepting the award are Sarah Stone and Josiah Colby, first graders from South Whidbey Primary School. Also pictured are Office of Drinking Water Director Denise A. Clifford and Facilities Supervisor John Willson.

Photo courtesy of Gayle Saran, South Whidbey Record.

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Drought Preparedness: What You Can Do Right Now



Drought conditions can have devastating effects on water supplies. During normal years, peak water demands in summer can double or triple average water use. These same summer demands during low water years can lead to water shortages for some water systems.

To ensure that your water system is prepared for drought, take action now, before peak water-use season begins. The Office of Drinking Water (ODW) recommends you consider the following:

Educate your customers about wise water use and conservation. Now, more than ever, is the time to stress the importance of wise water use. Talk with your customers about conservation, water use efficiency, wise water use and drought. You can get a series of ODW publications designed to help you communicate with your customers about these issues on ODW’s drought Web site.

Update your water conservation plan. During the 2001 drought, many water systems developed water conservation plans. It is time to take yours off the shelf and update it. If your system doesn’t have a conservation strategy, develop one now.

Prepare a water shortage response plan. Drought is another type of drinking water emergency. It is one you may have the luxury to plan and prepare for. Do you know what to do when water supplies run low? Do you have alternative sources of supply? How can you and your customers prepare for low water conditions? Thinking ahead and developing a plan can help tremendously when problems arise. Guidance on developing a water shortage response plan is on ODW’s drought Web site.

Have your emergency water sources tested now. If you have an emergency water source that could be used in the event of a water shortage, now is the time to get it tested so that it will be ready to use should the need arise. At a minimum, coliform bacteria and nitrate tests will be required.

Find leaks and repair them. Leaky water pipes can waste large amounts of precious water. Help from qualified professionals on leak detection and repair is available.

Visit ODW’s drought Web site. ODW developed a 2005 drought Web site with links to the resources described here. We will keep it updated with information and tools throughout the summer. The Web address is <http://www.doh.wa.gov/ehp/dw/drought/droughthome.htm>

Toxic Blue-Green Algae:

An Emerging Public Health Issue

Cyanobacteria, also known as blue-green algae, are becoming a public health issue for water systems that use surface water. Some cyanobacteria can excrete toxins that affect the liver, skin, and nervous system.

Microcystins, *Anabaena*, and *Planktothrix* are three of the most common cyanobacteria that can produce toxins. When present in large numbers, they can form visible green, blue-green or reddish-brown blooms on the water surface. Blooms usually occur during warm, calm weather with bright sunlight, but can occur at any time of the year.

Do not add an algicide if a visible bloom is present. Adding an algicide can cause the algae cells to rupture – releasing toxins into the water. Filtration does not effectively remove dissolved algal toxins, so destroying cells before filtration may result in higher concentrations of toxin in finished water.

Sampling raw water for cyanobacteria

Consider sampling your raw water for cyanobacteria if you have had algae growth or taste and odor problems in the past. The recommended monitoring frequency for algae varies from once every other month to weekly, depending upon the quantity of algae present in the source water.

Weekly or more frequent monitoring is recommended only when there are at least 500 algae cells per milliliter. To find information on algae monitoring and how water systems can respond, see the reading list at the end of this article.

Getting sample results

A few labs in Washington can identify and count algae. The cost of sample analysis runs from \$60 to \$125, depending upon the type of analysis and turnaround time requested.

Even fewer labs are able to analyze for algal toxins. Some can

only analyze for microcystin. The cost of analysis usually runs from \$300 to \$500.

Keeping blue-green algae out of drinking water

One of the best ways to prevent algal toxins from entering the water system is a well-run water treatment plant. Recent studies show water treatment plants can remove cyanobacteria and algal toxins so that the finished water meets World Health Organization guidelines.

Removing cyanobacteria can eliminate most of the toxins since growing, intact cells contain 70 to 100 percent of the toxins. When cyanobacteria cells die, they tend to release any toxins they may have produced into the surrounding water.

The effectiveness of water treatment varies, depending on the type of treatment and the type of algae. Several measures can improve the removal of algae and their toxins.

◆ *Minimize preoxidation*

Preoxidation with chlorine and ozone can cause algae cells to rupture, releasing toxins. However, lowering disinfectant concentrations may not be possible for water treatment plants where disinfection before filtration is required to provide adequate pathogen inactivation.

◆ *Make the best use of your water treatment processes*

By carefully monitoring and adjusting water treatment

Health-based guidance for algal toxins in drinking water

The U.S. Environmental Protection Agency put algal toxins on the Contaminant Candidate List for future regulation.

The World Health Organization established a guideline of 1.0 part per billion (ppb) for the algal toxin, microcystin-LR.

Australia's standard is 1.3 ppb for total microcystins.

Health Canada has proposed a standard of 1.5 ppb for total microcystins.



A reservoir after toxic cyanobacteria were treated with copper sulfate. The white foamy looking material represents dead cyanobacteria after breaking open and releasing pigments.

Photo courtesy of Mike Crayton, Biology Dept., Pacific Lutheran University.

processes, you may be able to improve algae removal by sedimentation and filtration. Removing intact cells through these processes will significantly reduce the possibility that toxins will be present in finished water.

◆ **Don't recycle backwash water**

Backwash water can contain high concentrations of algae that can rupture and release toxins.

◆ **Remove remaining toxins**

After algae cells are removed from the water, some algal toxins can be destroyed by chlorine and ozone, while others can only be removed by activated carbon. The effectiveness of ozonation and chlorination varies depending upon the disinfectant dose and type of cyanotoxin. Wood-based and coal-based activated carbons have been more effective at removing toxins than coconut-based activated carbon.

In the long term, you can minimize algae problems by reducing conditions that favor the growth of blue-green algae. These actions include preventing nutrients, especially nitrogen and phosphorus, from entering your surface water source.

Resources

If you have questions about cyanobacteria and:

Water Treatment, call Sam Perry at (253) 395-6755 or e-mail sam.perry@doh.wa.gov

Health Effects, call Dr. Joan Hardy at (360) 236-3173 or e-mail joan.hardy@doh.wa.gov

Recreational Water, call Gary Fraser at (360) 236-3073 or e-mail gary.fraser@doh.wa.gov

You may also call the nearest regional drinking water office:

Eastern Region – (509) 456-3115

Northwest Region – (253) 395-6750

Southwest Region – (360) 664-0768

Reading List

Australian National Health and Medical Research Council. 1996. **Australian Drinking Water Guidelines**. Part II: Fact Sheets – Toxic Algae. Available online at <http://www7.health.gov.au/nhmrc/publications/pdf/eh19.pdf>.

Chorus, I. and J. Batram. 1999. **Toxic Cyanobacteria in Water**. World Health Organization. E&F Spon, London.

Embrey, M. 2002. *Chapter 9: Cyanobacteria in Drinking Water*. **Handbook of CCL Microbes in Drinking Water**. American Water Works Association. pp. 203-233.

Hardy, J., J. Jacoby, and M. Crayton. 1997. **Toxic Cyanobacteria: Education/Lake Protection. Final Report**. Washington State Department of Health.

Newcombe, G. and M. Burch. 2003. *Toxic Blue-Green Algae: Coming to a Neighborhood Near You?* **Opflow**, American Water Works Association. Vol. 29(5).

Westrick, J. 2003. *Everything a Manager Should Know About Algal Toxins but Was Afraid to Ask*. **Journal American Water Works Association**. Vol. 95(9).

Disinfection monitoring requirements

Surface Water or Groundwater under the Influence of Surface Water

If your water system uses surface water or groundwater under the direct influence of surface water, proper operation of your disinfection process is the key to providing safe drinking water to your consumers.

To ensure your disinfection process is working properly, you are required to monitor daily and report the following disinfection information to the Department of Health (DOH) on a monthly basis:

- Levels of inactivation achieved.
- Residual disinfectant concentration entering the distribution system.
- Residual disinfectant concentration within the distribution system.

Disinfection protects public health by eliminating disease-causing organisms. Proper monitoring of your disinfection process will show how well your system is working and helps provide assurance that your drinking water is safe.

Level of inactivation achieved

The Surface Water Treatment Rule recognizes the value of both filtration and disinfection. Therefore, the required level of disinfection inactivation depends upon the “filtration removal credit” DOH grants to the system. See examples in the table to the right.

Systems must disinfect continuously to ensure filtration and disinfection together achieve at least a:

- 3-log (99.9%) removal or inactivation of *Giardia lamblia* cysts.
- 4-log (99.99%) removal or inactivation of viruses.

Each day your water treatment plant is in operation, you must determine the total level of inactivation achieved by disinfection and then determine

whether the disinfection process is achieving the minimum required level of inactivation.

A water system is in compliance when it achieves a total inactivation ration (IR) of 1.0 or more.

IR is the ratio obtained by dividing the “calculated CT” by the “required CT.”

To get calculated CT (CT_{cal}), multiply the measured residual disinfectant concentration (C) in milligrams per liter (mg/L) times the corresponding disinfectant contact time (T) in minutes.

The required CT (CT_{req}) is the CT value a water system must provide to achieve the specific percent inactivation of *Giardia lamblia* cysts or viruses DOH assigned to the system.

Each day during peak hourly flow, you must determine T between the point where the disinfectant is added and the point where C is measured. The C measurement point must be located before or at the first customer.

You may have multiple points of disinfectant application, such as ozone followed by chlorine or chlorine applied at two points in the treatment train.

The total IR is the sum of the inactivation ratios achieved between each point of disinfection and subsequent C measurement point.

For chlorine, CT_{req} values are functions of water temperature, pH and chlorine

concentration. You must monitor the temperature and pH of the disinfected water at each residual disinfectant concentration sampling point used for CT calculations at least once a day.

Residual disinfectant concentration entering the distribution system

You are required to monitor the residual disinfectant concentration entering the distribution system whenever the treatment plant is operating. The purpose of this monitoring is to provide warning of disinfection failure at the plant.

All water entering the distribution system must contain a residual disinfectant concentration, measured as free or combined chlorine, of at least 0.2 mg/L. Failure to provide a 0.2 mg/L residual at entry to distribution for more than four hours on any day is a treatment technique violation.

If your system serves more than 3,300 people per month, you must continuously monitor and record the residual disinfectant concentration of water entering the distribution system and report the lowest value each day.

If your system serves 3,300 or fewer people per month, you can collect grab samples or use continuous monitoring and recording to measure the residual disinfectant concentration entering the distribution system. If you choose to take grab samples, the number of

Examples of filtration removal credits granted by DOH, and the required level of disinfection inactivation.

Type of Filtration	Filtration Removal Credit Granted (Log)		Required Log Inactivation by Disinfection	
	<i>Giardia</i>	Viruses	<i>Giardia</i>	Viruses
Conventional	2.5	2.0	0.5	2.0
Direct, In-line	2.0	1.0	1.0	3.0
Slow Sand	2.0	2.0	1.0	2.0
Diatomaceous Earth	2.0	1.0	1.0	3.0
No Filtration	0.0	0.0	3.0	4.0

samples required per day for filtered community systems and all unfiltered systems is:

Population served	Samples required per day
25 to 500	1
501 to 1,000	2
1,001 to 2,500	3
2,501 to 3,300	4

Noncommunity systems that filter need to contact DOH to determine the number of grab samples to be collected each day for residual disinfectant concentration entering the distribution system.

Residual disinfectant concentration within the distribution system

Whenever water is available to the public, you must monitor the residual disinfectant concentration within the distribution system. This requirement:

- Ensures the distribution system is properly maintained.
- Identifies and limits contamination from outside the distribution system.
- Limits the growth of heterotrophic plate count bacteria within the distribution system.
- Provides a minimum threshold that triggers remedial action.

You must measure the residual disinfectant concentration at representative points within the distribution system on a daily basis or as approved by DOH. At a minimum, you must measure the residual disinfectant concentration at the same time and location that a routine or repeat coliform sample is collected.

You must ensure that the residual disinfectant concentration in the distribution system, measured as total chlorine, free chlorine, combined chlorine, or chlorine dioxide, is detectable in at least 95 percent of the samples taken each calendar month.

Protecting Your Water Source Watershed Control for Filtered Surface Water Systems

All water systems are responsible for protecting their water sources to ensure safe drinking water for their customers. For surface water systems, this can be more challenging because the area requiring protection is larger and more susceptible to contamination.

Thorough planning and good communication with the people who live and work in and around the watershed can help systems protect their precious water supplies. For that reason, all Group A surface water systems must develop and implement a watershed control program and submit it as part of their comprehensive planning document.

The essential elements of a watershed control program are:

A map and narrative description of the watershed. Include characteristics such as boundaries, topographical features and hydrology, land ownership and activities that occur in the watershed.

An inventory of all current or potential water source contaminants. Identify both natural and human sources of contamination. Some key human activities are residential, industrial or agricultural land uses; timber management; mining; road building and maintenance; and wildlife management.

A description of contaminant source monitoring and control. Identify monitoring of the surface supply, reservoirs, and possibly the tributaries. Include land use restrictions, written agreements with

landowners, educational outreach programs and schedule for regular inspections or security patrols. These patrols should cover not just the water system components, but also other areas in the watershed.

An overview of system operations. Describe how the system is operated to ensure it will continually meet water quality regulations. Be sure to include an emergency response program describing how the utility will identify and respond to emergencies within the watershed that may harm water quality.

Take the time to build and maintain good relationships with law enforcement and neighbors upstream in the watershed. When people within the watershed are educated, they understand the need to protect it and know what to do if they witness a contamination event. By quickly contacting the water system, they may prevent contamination from reaching the water supply.

Water systems will get best results if they use, review and update their watershed control program on a regular basis.

For more information

The Office of Drinking Water has two publications to assist with watershed control efforts. Both are available online at <http://www4.doh.wa.gov/dw/publications/publications.cfm>

- **Water System Planning Handbook** (DOH PUB #331-068)
- **Surface Water Treatment Rule Guidance Manual** (DOH PUB #331-085). Provides guidance for unfiltered surface water systems.

Partners in Public Health

Walla Walla County Health Department: Above and Beyond

When staff at the Office of Drinking Water (ODW) and public water systems get together, they often discuss the concept of being “partners in public health” to ensure the people of Washington have safe, reliable drinking water. Another important partnership in this effort is with local health jurisdictions throughout the state. For example, the Walla Walla County Health Department consistently goes to great lengths to support and serve Group A and Group B public water systems within its jurisdiction.

New growth

Staff at the Walla Walla County Health Department support water systems by closely working with local planning and building departments. There, they learn, early in the process, of the need for a new or larger public water system. In addition, they facilitate the process by helping developers of new and existing systems get necessary documents to ODW for review and approval.

Laboratory services

The health department operates a drinking water laboratory certified for bacteriological and nitrate analysis. Staff are also available to collect routine coliform and some nitrate samples.

In 2004 they collected about:

- 1,100 monthly coliform samples, meeting the routine sampling requirements for 90 percent of the Group A systems in Walla Walla County.
- 160 yearly coliform samples, meeting the routine sampling requirements for 95 percent of the Group B systems in Walla Walla County.
- 30 nitrate samples for Group A systems with a single source or single well field.
- 50 nitrate samples for Group B systems.

They also provided follow-up guidance to public water systems when samples were unsatisfactory, and gave technical assistance, upon request, to public water systems of all sizes by phone or on-site.

Safe, reliable drinking water

The dedication and effort demonstrated by the management and staff of the Walla Walla County Health Department has resulted in an extremely low number of coliform violations, while at the same time creating an important field presence with public water system operators.



The 2004 coliform statistics for the 64 Group A water systems in Walla Walla County tell the story:

- 0 major monitoring violations
- 1 major repeat violation (new Group A system)
- 12 non-acute violations (10 systems)
- 0 acute violations

It is difficult to overstate the public health benefits that accrue from this “above and beyond” attitude, such as providing accurate and timely water quality information, delivering technical assistance; and promoting a true sense of public health partnership between themselves, water systems and ODW.



The following subcommittee members of the Water Supply Advisory Committee dedicated many hours of hard work to help the Office of Drinking Water (ODW) with the proposed Water Use Efficiency Rule. The subcommittee worked together for one year to create a report of recommendations and options to help ODW prepare the proposed rule. Representatives from the Yakama and Tulalip Tribes also participated as observers of the process.

Public Water System Customers

Howard Laughery, East Wenatchee Water District Customer
Denise Smith, League of Women Voters

Environmental Interest Groups

Karen Allston, The Center for Environmental Law & Policy
Alternate - Shirley Nixon
Rachael Paschal Osborn, Sierra Club Statewide Water Task Force and Palouse Water Conservation Network
Alternate - Bev Keating
Judy Turpin, Washington Environmental Council
Alternate - Josh Baldi

Business Interest Groups

Andrew Cook, Building Industry Association of Washington
Tim Wilson, Irrigation Water Management Society
Alternate - Peter Dervin, Washington Association of Landscape Professionals

Municipal Water Supplier - Large Systems

Richard Gustav, Seattle Public Utilities
Alternate - Marla Carter, City of Everett Public Works Department
John Kirner, Tacoma Water Department
Alternate - Randy Black, Lakewood Water District
Frank Triplett, Spokane Water Department
Alternate - Steve Skipworth, Vera Water and Power

Municipal Water Supplier - Medium Systems

Bob Alberts, City of Pasco
Alternate - Bruce Beauchene, City of Kennewick Public Works Department
Greg Brizendine, East Wenatchee Water District
Alternate - David Johnson, Chelan County PUD
Donald Wright, South King County Regional Water Association
Alternate - Jim Haneline, Summit Water Company

Municipal Water Supplier - Small Systems

Bob Pancoast, Compass Geographics Inc.
Alternate - Harry Paul, Thurston PUD
Jerry Petersen, Washington Water Service
Alternate - Drew Noble, Investor Owned Water Utilities Association of Washington
Debbie Thomas, Kitsap PUD
Alternate - Betty Vance, Valley Water District

Water Utility Conservation Professional

David Fujimoto, Cascade Water Alliance
Alternate - Andrew Graham, Economic & Engineering Services, Inc.

Local Government

Tom Fox, King County Department of Natural Resources & Parks
Alternate - Tom Clingman, Thurston County Department of Water & Waste Management
Connie Krueger, City of Leavenworth
Mark Tompkins, San Juan County Health Department

State Government

Gene Eckhardt, WA Utilities & Transportation Commission
Ben Bonkowski, Department of Ecology, Water Resources Program
Alternate - Lynn Coleman

Technical Assistance Provider

Gary Rhoades, Evergreen Rural Water of Washington
Alternate - George Schlender, Rural Community Assistance Corporation

Tribal Governments

Patricia Paul, The Tulalip Tribes
Dawn Vyvyan, The Yakama Nation
Terry Williams, The Tulalip Tribes
Alternate - Kimberly Ordon, Attorney at Law

Overview of Proposed Water Use Efficiency

NOTE: Bolded text means new regulatory requirements
Text not bolded indicates requirements exist in current regulations

15 - 999 Connections

Required in Small Water System Management Program (SWSMP):

- Source description
- Monthly source production
- **System Average Daily Demand**
- **Estimated population**
- **Annual usage of residential/non-residential connections and describe seasonal variability**
- Provide current water demand
- Forecast water demand for total number of approved connections (without **and with meeting conservation goal**) while addressing land use, growth projections & regional plans
- Evaluate distribution system leakage
- Evaluate conservation measures or implement
- Provide rate structure
- Evaluate conservation-oriented rates

Outside of SWSMP:

- Source meters
- **Service meters within 12 years**
- Water distribution system leakage standard will be set at 10 percent unless not technically feasible
- Develop plan to reduce leakage if over 10 percent standard
- Leakage compliance calculated over 3-year period
- Set quantitative conservation goals every 6 years through public process
- Provide details and schedule to meet conservation goals
- Annual performance reporting includes: annual total source production, annual leakage percent and volume, and narrative on progress towards meeting goals

15 - 999 Connections

Required in Water System Plan (WSP):

- **Source description**
- Monthly source production
- System Average Daily Demand and Maximum Daily Demand
- Estimated population
- **Annual usage of residential/non-residential connections and describe seasonal variability**
- Provide current water demand
- Forecast current, 6-year, 20-year demand (without **and with meeting conservation goals**) while addressing land use, growth projections & regional plans
- **Evaluate distribution system leakage**
- **Evaluate conservation measures or implement**
- Provide rate structure
- Evaluate conservation-oriented rates

Outside of WSP:

- Source meters
- **Service meters within 12 years**
- Water distribution system leakage standard will be set at 10 percent unless not technically feasible
- Develop plan to reduce leakage if over 10 percent standard
- Leakage compliance calculated over 3-year period
- Set quantitative conservation goals every 6 years through public process
- Provide details and schedule to meet conservation goals
- Annual performance reporting includes: annual total source production, annual leakage percent and volume, and narrative on progress towards meeting goals

Requirements for Municipal Water Suppliers

NOTE: Bolded text means new regulatory requirements
Text not bolded indicates requirements exist in current regulations

1,000 - 9,999 Connections

Required in Water System Plan (WSP):

- **Source description**
- Monthly source production
- System Average Daily Demand and Maximum Daily Demand
- Estimated population
- **Annual usage data and describe seasonal variability for customer classes**
- Provide current water demand
- Forecast current, 6-year, 20-year demand (without **and with meeting conservation goals**) while addressing land use, growth projections & regional plans
- **Evaluate distribution system leakage**
- **Evaluate conservation measures using cost-effectiveness criteria or implement**
- **Evaluate water reclamation opportunities**
- Provide rate structure
- Evaluate conservation-oriented rates
- **Describe existing conservation program**
- **Describe improvements in efficiency over past 6 years**

Outside of WSP:

- Source meters
- **Service meters within 12 years**
- **Water distribution system leakage standard will be set at 10 percent unless not technically feasible**
- **Develop plan to reduce leakage if over 10 percent standard**
- **Leakage compliance calculated over 3-year period**
- **Set quantitative conservation goals every 6 years through public process**
- **Provide details and schedule to meet conservation goals**
- **Annual performance reporting includes: annual total source production, annual leakage percent and volume, and narrative on progress towards meeting goals**

>10,000 Connections

Required in Water System Plan (WSP):

- **Source description**
- Monthly source production
- System Average Daily Demand and Maximum Daily Demand
- Estimated population
- **Annual usage data and describe seasonal variability for customer classes**
- Provide current water demand
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- **Annual performance reporting includes: annual total source production, annual leakage percent and volume, and narrative on progress towards meeting goals**

Monitoring for disinfectants and disinfection byproducts

An existing requirement with future benefits



Disinfectants effectively inactivate many microorganisms. However, the disinfectants themselves can react with naturally occurring materials in the water to form unintended byproducts that may pose health risks.

The Stage 1 Disinfectants and Disinfection Byproducts (D/DBP) Rule requires community and non-transient non-community water systems that continuously chlorinate or ozonate their water to sample for disinfection byproducts (DBPs). DBPs include total trihalomethanes (TTHM) and haloacetic acids (HAA5).

Many systems began monitoring, as required, in 2004. However, some did not.

Water systems that do not monitor as required under the Stage 1 D/DBP Rule will have monitoring violations. In addition, systems that do not take samples under the Stage 1 D/DBP Rule will not be eligible for monitoring waivers identified in the proposed Stage 2 D/DBP Rule.

The Stage 2 Disinfectants and Disinfection Byproducts (D/DBP) Rule allows certain monitoring waivers for water systems that serve fewer than 500 people or have very low DBPs in their distributed water. The U.S. Environmental Protection Agency proposed the rule to provide more uniform public health protection from DBPs.

Save time and money!

If you have not already started sampling under the Stage 1 D/DBP Rule, now is the time to begin. Not only will you be meeting your requirements to provide safe and reliable water, but you will likely save your water system time and money in the future.

The Office of Drinking Water (ODW) will provide more information on the Stage 2 D/DBP Rule and related monitoring waivers when the rule is finalized.

For more information

The U.S. Environmental Protection Agency has posted information about the:

- Proposed Stage 2 D/DBP Rule online at <http://www.epa.gov/safewater/stage2/index.html>
- Stage 1 D/DBP Rule online at <http://www.epa.gov/safewater/ndbp/dbp1.html>

You may also get information from your ODW regional office:

Eastern Region – Mike Wilson (509) 456-3186

Northwest Region – Jolyn Leslie (253) 395-6762

Southwest Region – (360) 664-0768

Drinking Water State Revolving Fund (DWSRF)

In May, the Office of Drinking Water received 67 DWSRF applications from 51 jurisdictions worth more than \$55 million. About \$20 million is available to fund this year's projects. Staff is reviewing the applications for eligibility. The draft priority project list will be distributed late this summer, followed by a 30-day public review and comment period. Funding will become available next spring. For more information, please call Chris Gagnon at (360) 236-3095 or e-mail chris.gagnon@doh.wa.gov

Infrastructure Assistance Coordinating Council (IACC)

Legislative Open House

On March 8, IACC conducted a legislative open house sponsored by Senator Margarita Prentice, Chair of the Senate Ways and Means Committee, and Representative Hans Dunshee, Chair of the House Capital Budget Committee. The open house highlighted several infrastructure-related resources, including the:

- **Local Infrastructure Needs Assessment System (LINAS)** – A Web-based data management system with up-to-date information on the infrastructure needs of 630 local governments in Washington.
- **IACC Web site** – A directory of financial and technical resources dedicated to helping local governments address their infrastructure needs.
- **Archaeological Predictive Model** – A method of predicting the probability of encountering archaeological sites that helps state and local planners identify the best options for siting projects.

Conference

IACC's annual conference will be November 8-10, at the Wenatchee Convention Center. For more information on the conference, as well as funding and technical assistance providers, visit the IACC Website at <http://www.infracfunding.wa.gov>

\$2 Million Available Water System Acquisition and Rehabilitation Program

The 2005 Legislature committed \$2 million to help municipal water systems acquire and rehabilitate other public water systems with water quality problems. Some troubled systems have deteriorated to the point that significant public health threats may exist.

The Water System Acquisition and Rehabilitation Program (WSARP) is intended to help local governments ensure drinking water systems throughout the state can provide safe, reliable drinking water.

Grants ranging up to \$500,000 may be used to pay for a portion of planning, design, and other pre-construction activities; system acquisition; and capital construction costs. Applicants with sound drinking water utility management that own at least one municipal Group A public water system may be eligible for funding.

The application deadline is September 26. Funding will become available in spring 2006.

The state Department of Health, the Public Works Board, and the Department of Community, Trade and Economic Development will jointly administer the program. The Legislature directed the agencies to expedite funding distribution.

Program guidelines are being drafted and will contain detailed eligibility requirements.

For more information

WSARP guidelines and application will be online later this summer at <http://www.pwb.wa.gov/>

Information on 2003 WSARP-funded projects is online at <http://www.doh.wa.gov/ehp/dw/wsarp/wsarp.htm>

Public Works Board – Leslie Hafford (360) 586-4128 or leslie.hafford@pwb.wa.gov

Department of Health – Chris Gagnon (360) 236-3095 or chris.gagnon@doh.wa.gov

Reminder

2004 Consumer Confidence Reports are due July 1!

July 1 is fast approaching and if you haven't started preparing your 2004 Consumer Confidence Report (CCR), time is drawing near. Remember, you must send your CCR report to customers and the Office of Drinking Water by July 1, 2005.

If you have questions, call your regional office or headquarters:

Eastern Region – (509) 456-3115

Northwest Region – (253) 395-6750

Southwest Region – (360) 236-3100

Headquarters – (800) 521-0323



Sanitary Survey Program

Customer Satisfaction Survey Results

Last summer, the Office of Drinking Water (ODW) contracted with Barney & Worth to complete a customer satisfaction survey on the Sanitary Survey Program. The survey targeted Group A public water systems and was designed to get feedback on the most recent sanitary survey and identify areas for improvement in the Sanitary Survey Program.

The survey was mailed to all 4,129 Group A public water systems so every system representative could provide feedback. Questions were multiple-choice with an opportunity at the end of the survey to add comments and suggestions, or clarify responses to particular multiple-choice questions. To increase response rates, ODW gave respondents self-addressed, postage-paid envelopes. It also made the surveys available online to save time and money.

This was the third and final customer satisfaction survey distributed to roughly the same audience within a six-month timeframe. Two previous surveys targeted public water system owners and operators in evaluating the ODW's Operator Certification Program.

About the respondents

ODW received 1,250 completed surveys, for a total response rate of 30 percent. Of those, 771 (62%) were mailed and 479 (38%) were completed online. Responses came from every county in the state, with equal geographical representation.

Results from the survey

Level of agreement with statements about their most recent sanitary survey.	% of responses average or better
Surveyor was adequately trained for the job	(87%)
Survey took right amount of time	(87%)
Survey improved system operation and maintenance	(85%)
Information materials strengthened understanding	(83%)

How would you rate your most recent sanitary survey experience?	% of responses average or better
Did your sanitary surveyor arrive on time?	(98%)
Did you have a clear understanding who, representing your water system, needed to be present when the survey was conducted?	(95%)
Was the timeframe you were given to repair deficiencies reasonable and appropriate?	(95%)
If deficiencies were noted during the survey, was the relationship between correcting the deficiencies and providing safe and reliable water (public health protection) adequately explained to you in the survey report or follow-up letter?	(95%)
Were you able to correct the deficiencies within the timeframe given to complete them?	(94%)
Were you notified in advance you would be charged a fee for the sanitary survey?	(88%)

Group B regulatory program review

The Office of Drinking Water (ODW) is working with stakeholders to review and comprehensively evaluate the scope of the regulatory program for Group B water systems. The review will focus on the core functions of public health and their related key essential elements.

This approach will provide a means of looking at the program in a comprehensive and structured manner, while ensuring the program analysis is framed by a population-based approach to public health. Many areas with significant impacts on the regulation of Group B systems will be examined.

Since 2002, local health jurisdictions, under contract with DOH, conducted more than 5,200 site visits and

inventoried more than 6,100 Group B water systems that serve three or more connections. These efforts produced valuable information about the condition of Group B systems and recommendations from participating local health jurisdictions. (See DOH publication #331-243, *Group B Project Report* online at www4.doh.wa.gov/dw/publications/publications.cfm)

ODW plans to present comprehensive recommendations on the Group B Program to the State Board of Health by spring of 2006.

For more information, or to provide comments on the review, call Dennis Campbell at (360) 236-3158 or e-mail dennis.campbell@doh.wa.gov

How well were the following objectives met during the most recent sanitary survey?	% of responses average or better
Help motivate management to make needed improvements in the facilities or policies.	(83%)
Confirm the good practices and condition of your water system.	(96%)
Help the water system meet drinking water regulations.	(93%)
Provide a fresh set of eyes to help evaluate your water system.	(93%)
Identify deficiencies of high public risk.	(85%)
Identify deficiencies that have the potential to cause a disruption in service.	(80%)

Nearly 80 percent of the respondents are system owners and operators, rather than contractors or other service representatives. Most respondents represent water systems serving fewer than 250 people. Only 9 percent represent systems serving more than 3,300 people.

At least 10 percent of respondents marked “not sure” or “not applicable” for most of the survey questions, indicating they had either not been present during their most recent sanitary survey, or represented a system that has never had a sanitary survey.

Since the survey focused on the last sanitary survey, it is relevant that 44 percent were conducted by ODW, 42 percent were conducted by third party qualified sanitary surveyors,

and 14 percent of respondents were not sure who conducted their sanitary survey.

Some respondents completed individual surveys for each of the systems they manage. Others completed one survey and stated their ratings were consistent for all the systems they manage. Therefore, the responses reflect both “systems” and “individuals.”

What we learned from the water systems

By far, the most typical comment was along the lines of “good job, keep up the great work.” Respondents largely appear to feel ODW is providing a valuable service through its Sanitary Survey Program.

Overall, respondents seem satisfied with the amount and type of information ODW currently provides to them. Several suggest they receive “more than enough.” Some respondents suggest ODW provide a brief, itemized list of all testing and other related system requirements...a “one-stop shopping” guide where a system manager can quickly scan for upcoming tasks.

Others recommend ODW utilize “lessons learned” from one jurisdiction’s water system deficiencies or improvements to teach others, and post “common problems and solutions” articles in Water Tap. ODW will publish these articles as common issues emerge.

For more information, or a copy of the survey results, call Sara Brallier at (360) 236-3180 or e-mail sara.brallier@doh.wa.gov

UTC increases the revenue threshold for water company rate regulation

On May 5, the Washington Utilities and Transportation Commission (UTC) increased the amount a privately owned, for-profit water company can bill its customers before it falls under UTC jurisdiction. UTC will now begin to regulate a water company when it generates an average of \$471 in annual revenue per customer.

“With the increased threshold, a non-regulated, privately owned water company serving fewer than 100 customers may increase its rates anywhere at or below the \$471 threshold without becoming regulated by UTC,” said Danny Kermode, a regulatory analyst at the UTC. Kermode led the team that studied the threshold increase.

“The new threshold does not prohibit a company from increasing its rates to a level over \$471. The rule

merely sets the revenue level at which the commission’s oversight of rates begins,” he added.

The commission regulates more than 70 privately owned water companies, serving 80,000 customers. State law allows the commission to increase the threshold periodically to account for inflation. Companies charging more than the revenue threshold or serving 100 or more customers come under the oversight of the commission. The previous threshold was \$429, set in December of 1999.

For more information, visit the UTC Web site at <http://www.wutc.wa.gov/>

If you have questions about the new revenue threshold or how it affects you, call Danny Kermode at (360) 664-1253 or e-mail dkermode@wutc.wa.gov

Training and Education Calendar: June - November 2005

Date	Topics	Location	Contact	Phone #	Cost/CEU
June 7	Automatic Control Valves	Vancouver	ERWOW	1-800-272-5981	Free
June 7	Water Sampling Basics	Colville	ERWOW	1-800-272-5981	\$25/0.7*
June 8	Water Sampling Basics	Moses Lake	ERWOW	1-800-272-5981	\$25/0.7*
June 9	Cross Connection Control & Backflow Basics	Tacoma	ERWOW	1-800-272-5981	\$25/0.7*
June 10	Backflow Assembly Tester Certification Exam	Auburn	WETRC	1-800-562-0858	\$180/NA
June 13-14	BAT Professional Growth Exam Review	Auburn	WETRC	1-800-562-0858	\$205/1.5
June 14	Water Sampling Basics	Chelan	ERWOW	1-800-272-5981	\$25/0.7*
June 14-16	Pump Operation and Maintenance	Auburn	WETRC	1-800-562-0858	\$275/2.1
June 15	BAT Professional Growth Exam	Auburn	WETRC	1-800-562-0858	\$105/NA
June 15	Water Sampling Basics	Yakima	ERWOW	1-800-272-5981	\$25/0.7*
June 17	Basic Pump Operation and Maintenance	Auburn	WETRC	1-800-562-0858	\$25/0.7*
June 21	Water Sampling Basics	Port Angeles	ERWOW	1-800-272-5981	\$25/0.7*
June 22-23	Advanced Backflow & Cross Connection Control	Yakima	ERWOW	1-800-272-5981	\$25/1.4*
June 23	Basic Field Operations	Bellingham	WETRC	1-800-562-0858	\$25/0.7*
June 29-30	Competent Person Cave In Protection	Auburn	WETRC	1-800-562-0858	\$210/1.4
July 7	Confined Space Entry	Richland	WETRC	1-800-562-0858	\$140/0.7
July 14	Equipment Expo	Satsop	ERWOW	1-800-272-5981	\$10/\$15
July 20	Automatic Control Valves	Bellingham	ERWOW	1-800-272-5981	Free/0.7
July 21	Local Hydrogeology	Clarkston	ERWOW	1-800-272-5981	Free/0.5
July 28	Local Hydrogeology	Liberty Lake	ERWOW	1-800-272-5981	Free/0.5
Aug 2	Water System Leakage	Spokane	ERWOW	1-800-272-5981	Free/NA
Aug 3	Water System Leakage	Richland	ERWOW	1-800-272-5981	Free/NA
Aug 4	Cross Connection Control & Backflow Basics	Centralia	ERWOW	1-800-272-5981	\$25/0.7*
Aug 4	Water System Leakage	Wenatchee	ERWOW	1-800-272-5981	Free/NA
Aug 11	Cross Connection Control & Backflow Basics	Moses Lake	ERWOW	1-800-272-5981	\$25/0.7*
Aug 11-12	Competent Person Cave In Protection	Auburn	WETRC	1-800-562-0858	\$210/1.4
Aug 16	Water System Leakage	Mt. Vernon	ERWOW	1-800-272-5981	Free/NA
Aug 17	Water System Leakage	Monroe	ERWOW	1-800-272-5981	Free/NA
Aug 18	Water System Leakage	Lacey	ERWOW	1-800-272-5981	Free/NA
Aug 24	Local Hydrogeology	Colville	ERWOW	1-800-272-5981	Free/0.4
Aug 29-Sept 1	Backflow Assembly Tester Exam Review	Mt. Vernon	ERWOW	1-800-272-5981	\$375/\$400/3.0
Sept 1	Water Distribution Specialist Certification Exam Review	Centralia	WETRC	1-800-562-0858	\$25/0.7*
Sept 5-16	Backflow Assembly Tester Certification Class	Vancouver	WETRC	1-800-562-0858	\$525/3.0
Sept 6-8	Water Distribution Certification Exam Review	Auburn	WETRC	1-800-562-0858	\$25/\$275/2.1*
Sept 7-9	Cross Connection Control Exam Review	Richland	ERWOW	1-800-272-5981	Free/\$180/\$230/2.1†
Sept 8	Confined Space Entry	Mt. Vernon	WETRC	1-800-562-0858	\$140/0.7
Sept 9	Basic Pump Operation and Maintenance	Moses Lake	WETRC	1-800-562-0858	\$25/0.7*
Sept 12-13	Fall Conference	Ocean Shores	ERWOW	1-800-272-5981	Call †
Sept 13-15	Water Distribution Certification Exam Review	Everett	WETRC	1-800-562-0858	\$25/\$275/2.1*
Sept 14	Ten Best Kept Water & Wastewater Process Management Secrets	Lacey	ERWOW	1-800-272-5981	TBA
Sept 14-16	Water Distribution Exam Review	Mt. Vernon	ERWOW	1-800-272-5981	\$180/\$230/2.2†
Sept 16	Ten Best Kept Water & Wastewater Process Management Secrets	Ritzville	ERWOW	1-800-272-5981	TBA
Sept 17	Backflow Assembly Tester Certification Exam	Vancouver	WETRC	1-800-562-0858	\$180/NA
Sept 19	Water System Controls, Monitoring and Alarm Basics	Lacey	WETRC	1-800-562-0858	\$25/0.7*
Sept 19-28	BAT Professional Growth Exam Review	Vancouver	WETRC	1-800-562-0858	\$205/1.5

Training and Education Calendar: June - November 2005

Date	Topics	Location	Contact	Phone #	Cost/CEU
Sept 20	Small Water System Management	Auburn	WETRC	1-800-562-0858	\$25/0.7*
Sept 20	Water Distribution Certification Exam Review	Moses Lake	WETRC	1-800-562-0858	\$25/\$275/2.1*
Sept 20-22	Cross Connection Control Exam Review	Olympia	ERWOW	1-800-272-5981	\$180/\$230/2.1†
Sept 20-22	Water Distribution Exam Review	Richland	ERWOW	1-800-272-5981	\$180/\$230/2.2†
Sept 20-22	Water Distribution Certification Exam Review	Moses Lake	WETRC	1-800-562-0858	\$25/2.1*
Sept 22	BTO/WTPO OIT and Level 1 Cert Exam Review	Yakima	WETRC	1-800-562-0858	\$25/0.7*
Sept 27	Groundwater Management Area	Othello	ERWOW	1-800-272-5981	Free/TBA
Sept 27	Water Distribution Specialist Certification Exam Review	Spokane	WETRC	1-800-562-0858	\$25/0.7*
Sept 27-29	Cross Connection Control Exam Review	Mt. Vernon	ERWOW	1-800-272-5981	\$180/\$230/2.1†
Sept 27-29	Water Distribution Exam Review	Olympia	ERWOW	1-800-272-5981	\$180/\$230/2.2†
Sept 29	BTO/WTPO OIT and Level 1 Cert Exam Review	Mt. Vernon	WETRC	1-800-562-0858	\$25/0.7*
Sept 30	Basic Field Operations	Wenatchee	WETRC	1-800-562-0858	\$25/0.7*
Oct 1	BAT Professional Growth Exam	Vancouver	WETRC	1-800-562-0858	\$105/NA
Oct 3-14	Backflow Assembly Tester Certification Class	Vancouver	WETRC	1-800-562-0858	\$525/3.0
Oct 4	Emergency Response Planning	Richland	ERWOW	1-800-272-5981	\$25/0.7*
Oct 4	Groundwater Management Area	Pasco	ERWOW	1-800-272-5981	Free/TBA
Oct 5	Emergency Response Planning	Liberty Lake	ERWOW	1-800-272-5981	\$25/0.7*
Oct 5-6	Competent Person Cave in Protection	Everett	WETRC	1-800-562-0858	\$210/1.4
Oct 6	Emergency Response Planning	Chelan	ERWOW	1-800-272-5981	\$25/0.7*
Oct 7	Basic Pump Operation and Maintenance	Bremerton	WETRC	1-800-562-0858	\$25/0.7*
Oct 10-13	Backflow Assembly Tester Exam Review	Ellensburg	ERWOW	1-800-272-5981	\$375/\$400/3.0
Oct 11	Groundwater Management Area	Ephrata	ERWOW	1-800-272-5981	Free/TBA
Oct 13	Construction Management & Inspection for Water & Wastewater Utilities	Spokane	WETRC	1-800-562-0858	\$105/0.7
Oct 15	Backflow Assembly Tester Certification Exam	Vancouver	WETRC	1-800-562-0858	\$180/NA
Oct 17-26	BAT Professional Growth Exam Review	Vancouver	WETRC	1-800-562-0858	\$205/1.5
Oct 18	Basic Field Operations	Auburn	WETRC	1-800-562-0858	\$25/0.7*
Oct 25	Basic Water Works Overview	Bellingham	ERWOW	1-800-272-5981	\$25/0.7*
Oct 26	Basic Water Works Overview	Monroe	ERWOW	1-800-272-5981	\$25/0.7*
Oct 29	BAT Professional Growth Exam	Vancouver	WETRC	1-800-562-0858	\$105/NA
Nov 2	Emergency Response Planning	Shelton	ERWOW	1-800-272-5981	\$25/0.7*
Nov 2-3	Advanced Backflow & Cross Connection Control	Bremerton	ERWOW	1-800-272-5981	\$25/0.7*
Nov 2-3	Groundwater Under The Pacific Northwest: Integrating Research, Policy, & Education 2005 Conference	Stevenson	WWRC	1-509-335-5531	TBA
Nov 3	Emergency Response Planning	Kelso	ERWOW	1-800-272-5981	\$25/0.7*
Nov 4	Basic Pump Operation and Maintenance	Mt. Vernon	WETRC	1-800-562-0858	\$25/0.7*

*Operators of Group A small water systems serving 3,300 people or less will be charged a \$25 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 or fewer people.

For information about distance learning opportunities, call WETRC at 1-800-562-0858

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/>

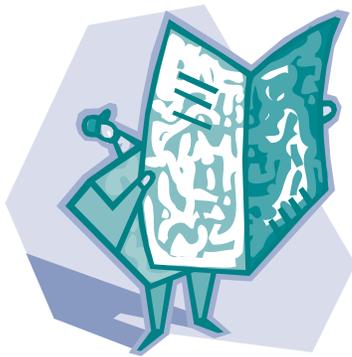
AWWA Pacific Northwest Section Web site—<http://www.pnws-awwa.org/>

EPA electronic workshops Web site—<http://www.epa.gov/safewater/dwa/electronic.html>

For the complete Training Calendar, visit the Drinking Water Homepage and click on Training - 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.

New & Revised Publications



Consumer Confidence Reports (331-209) Revised. A two-page fact sheet with basic information on a Consumer Confidence Report, which is a brief annual water quality report from a public water system to its customers. (See related new publication #331-296, listed below.)

Color, Taste and Odor

Problems in Drinking Water (331-286) New! This two-page fact sheet is an excellent resource for water systems and their customers. It describes typical concerns, their common causes, and what can be done about them.

Office of Drinking Water (331-287) New! A two-page fact sheet describing the Office of Drinking Water's mission, functions and services.

Conservation Planning Requirements for Water System Plans (331-295) Revised. A two-page fact sheet designed to help water systems review conservation requirements when preparing Water System Plans. This interim guidance – to be used until the water use efficiency requirements go into effect – addresses water use reporting, demand forecasting, conservation programs and requirements for municipal water suppliers.

Tips for Preparing User Friendly Consumer Confidence Reports (331-296) New! Just in time to help with this year's Consumer Confidence Report (CCR), this 47-page booklet walks water systems through state and federal CCR regulations. It supplies in-depth information needed to prepare CCRs. The appendices include a sample CCR, the CCR certification form and a table of the regulated contaminants in Washington, including "required health effects language."

Department of Health's Role during a Drought Emergency (331-297) New! A two-page fact sheet that defines DOH's responsibilities during a declared drought, systems that may be vulnerable, and ways customers can help keep water consumption down.

Water Works Operator Certification (331-108) Revised. A 21-page guidance document containing state regulations for water works operator certification.

Responding to a Threat Against a Water System (331-183) Revised. A two-page fact sheet offers guidelines for water systems and Office of Drinking Water staff to use when they suspect vandalism or terrorism.

Sanitary Surveys of Drinking Water Systems (331-197) Revised. A two-page fact sheet with basic information about sanitary surveys, their purpose, who conducts them, what's in them, the process, and fees.

Sanitary Protection of Reservoirs—Vents (331-250) Revised. A two-page technical tip sheet depicts how to protect storage tank vents from birds, bats, insects and other contaminants.

Receivership (331-299) Revised. A two-page question-and-answer sheet describing receivership. This is the court appointment of an outside manager, which is the last resort when a water system does not meet state requirements.

Flood Advice for Drinking Water Systems (331-300) New! A two-page fact sheet explains how floods threaten water systems, what to do when a flood is predicted, and how to respond if a well or water distribution system is flooded.

An Overview of the Proposed Water Use Efficiency Rule and How to Get Involved (331-302) New! A two-page fact sheet covers the background, water use efficiency elements, and rule development schedule.

Five other fact sheets cover specific components of the proposed Water Use Efficiency Rule:

Proposed Conservation Planning Requirements (331-303)

Proposed Distribution Leakage Standard (331-304)

Proposed Conservation Goal Setting and Performance Reporting Requirements (331-305)

Proposed Metering Requirements (331-306)

Proposed Planning and Engineering Requirements (331-307)

Office of Drinking Water publications are available on the Internet at <http://www4.doh.wa.gov/dw/publications/publications.cfm> or by calling (800) 521-0323.

Drinking Water Week

(continued from page 3)

The district invited parents to a public education forum to discuss the issue. Information was presented by school board members, school staff, local public health and the Department of Health. Within a week, every school in the district was provided with bottled water.

"The quality of school drinking water has received local and national attention in the past year, and this school district did a great job of addressing the problem," said Clifford.

Snohomish Public Utility District

The Snohomish Public Utility District (PUD) received an award for "going above and beyond" to operate a quality water system. In addition to directly operating and managing 15 water utilities in Snohomish County, the PUD is recognized for its outstanding support of neighboring systems during emergencies.

Sentinel Gap Water Association - The Sentinel Gap Water Association in Grant County was recognized as the "most improved" water system. Last year this small community replaced its old, disintegrating water system with new facilities, including all distribution mains, the pump and control system, and a state-of-the-art reconstructed well head.

This project took years of work and funding from the U.S. Department of Agriculture's Rural Development Program, the state's Community Development Block Grant Program, consultants, water system operators and the Grant County Health District.

Ray Klube, Willapa Valley Water District

- For the first time, an individual certified water system operator was recognized during Drinking Water Week. Ray Klube, operator for the Willapa Valley Water District in Pacific County, is being honored for his

exemplary commitment to protecting the public.

Ray has operated or managed the district's water system for 35 years. Ray started with the district under a high school work program. After graduating he became a full-time employee and a state-certified operator in 1973. Recently, Ray led the replacement of a more-than-30-year-old pressure filtration system with a modern direct-filter system.

Governor Christine Gregoire signed a Washington Drinking Water Week Proclamation (http://www.doh.wa.gov/ehp/dw/2005_gov_proc.pdf) that calls upon state residents to help protect drinking water sources from pollution, conserve water and get involved in local water issues. Drinking Water Week information is available on the Department of Health Web site at http://www.doh.wa.gov/ehp/dw/drinking_water_week.htm



Raising bottles of their own tap water, officials and staff at Willapa Valley Water District congratulate Raymond Klube (center), the first individual certified water system operator to be recognized during Drinking Water Week. Shown from left are Carol Wiss, assistant bookkeeper; Betsy Martin, bookkeeper; Mike Sullivan, commissioner; Superintendent Klube; Shawn Aust, assistant; Gary Aust, commissioner; and Sherm Pollard, president.



Office of Drinking Water Director Denise A. Clifford presents an award for "going above and beyond" to Snohomish County PUD Water Resources. Accepting the award from left are commissioners Dave Aldrich, Toni Olson and Kathy Vaughn. *Photo courtesy of Snohomish County PUD.*



Accepting the "most improved system" award for Sentinel Gap were from left Grant County Commissioner Deborah Moore, and board members Alfredo Gutierrez, Donna Charvet and Jim Brown (interim president). Also shown is Scott Torpie, assistant manager of the Eastern Regional Office.

Water Use Efficiency

(Continued from Page 1)

In addition to posting the draft rule online, we will mail it with supporting fact sheets to all Group A systems. You can comment online at <http://www3.doh.wa.gov/policyreview/>

The formal comment period for the rule begins with workshops in October 2005. Public hearings will occur in November. More information will be on our Web site and in future

Water Tap articles. Our goal is to have the new rule adopted by the December 2005 legislative deadline.

If you do not receive your water use efficiency proposed rule packet, have questions, or would like to provide comments, please contact:

Theresa Phillips, Department of Health, PO Box 47822, Olympia, WA 98504-7822
Phone: (360) 236-3147
Fax: (360) 236-2253
E-mail: theresa.phillips@doh.wa.gov

2005 Drinking Water Seminars Cancelled

The Office of Drinking Water (ODW) is focusing its energy and resources on developing the proposed Water Use Efficiency Rule mandated by the 2003 Municipal Water Law. Due to the heavy workload associated with this effort, ODW is redirecting its resources and will not offer Drinking Water Seminars this year.

ODW is researching the possibility of offering a half-day course for water system operators and owners on the major components of the draft rule (see story page 1):

- Conservation planning requirements.
- Distribution leakage standard.
- Conservation goal setting and performance reporting.

In This Issue

The following people contributed articles to this issue of Water Tap: John Aden, Sarah Brallier, Dennis Campbell, Denise A. Clifford, Chris Gagnon, Danny Kermode, Amy Koch, Jennifer Kropack, Donna Lynch, Ethan Moseng, Sam Perry, Dan Sander, Paula Smith, Ginny Stern, Deana Taylor, Leslie Thorpe, Scott Torpie, Mike Wilson.

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
Janice Adair, Assistant Secretary of Health,
Environmental Health Division

Denise A. Clifford, Director, Office of
Drinking Water

Comments, questions, story ideas, articles and photographs submitted for publication are welcome. Please address correspondence to Editor, Water Tap, Office of Drinking Water, PO Box 47828, Olympia, WA 98504-7828, 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

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