



the WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

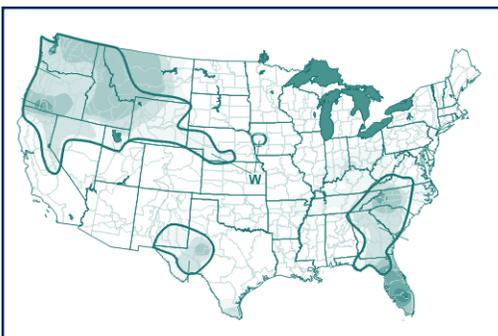
Drought and Drinking Water

Drought conditions across the state intensify the many already serious competing demands for water use in Washington - for drinking, irrigation, industry, power generation, and fish habitat. Drought presents new challenges for water utilities and those who regulate them.

This issue of *The Water Tap* is devoted to helping meet those challenges. It is especially aimed at smaller water systems, which may have few resources at hand to prepare for and cope with water shortages.

This Drought is for Real

The U.S. Drought Monitor map, produced by four federal agencies, shows moderate to severe drought conditions covering the entire Pacific Northwest, including much



View an updated map visit:
<http://enso.unl.edu/monitor/monitor.html>

of the Columbia River basin beyond the borders of Washington state. According to the national climate prediction center, the conditions are expected to persist.

The Time to Prepare is Now

Our recent survey of large water systems showed that they are taking the drought seriously and preparing for it. Small systems should be doing the same. There is plenty that can be done, even with



Coupeville Public Works Director Malcolm Bishop and Mayor Nancy Conard review production figures at the town's water treatment plant. System efficiency measures and customer education have reduced per connection water use by 30 percent.

limited funds and time. There is lots of assistance available from the Department of Health, other utilities, and training organizations.

Action Can Make a Big Difference

We are not powerless in the face of drought. Water use efficiency and conservation measures, for one example, can make a big difference in how much water you have available to serve your customers.

As you look through this special issue of the *Water Tap*, you'll find plenty of ideas for planning and taking action. As you come up with your own ideas, please share them with us.



Issue 45 • May 2001

**Drinking Water State
Revolving Fund Applications
Due June 4.**

Application form and program guidelines: www.doh.wa.gov/ehp/dw/Our_Main_Pages/dwsrf.htm

More information: Call your regional office or contact Chris Gagnon (360) 236-3095 chris.gagnon@doh.wa.gov

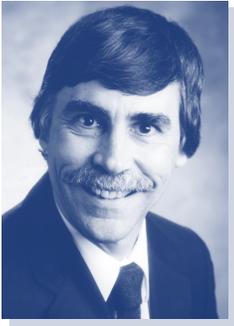
**Special training on
drought issues:**

See training calendar,
page 10.

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THE DIRECTOR'S COLUMN



BY GREGG GRUNENFELDER

Reliable access to safe drinking water is a key public health protection issue that is often taken for granted. While nearly one third of the world's population can only dream about having access to safe drinking water, here in the Northwest we have grown accustomed to the notion that we will always have unlimited

supplies of fresh water to meet our every need.

As we begin to recognize that our water resources are not unlimited, and as competing demands for those resources grow, attitudes about how we use our drinking water supplies are being challenged. This year's drought conditions will further challenge those attitudes and will give water utilities ample opportunity to communicate to customers the value of the commodity you deliver, and encourage its wise and thoughtful use.

The drought conditions in our state are real, and the impacts are already being felt statewide. Low water levels in rivers, creeks, and reservoirs make surface water supplies particularly vulnerable. In addition, low water table levels are already affecting water systems that use shallow wells and spring sources, and water systems on both sides of the mountains have already reported physical capacity problems. Many systems are particularly concerned about the effects these conditions may have if they persist into next year and beyond - which is a clear possibility.

Drought provides one more good reason for all water utilities to promote water use efficiency and educate customers on the true value of drinking water resources. It is also one more good reason for utilities to ensure water storage and distribution systems are well maintained and free of wasteful leaks. And it is one more good reason for all utilities to revisit and update emergency response plans in preparation for water shortages or water outages should they occur later in the year.

The Department of Health is responding to the governor's declaration of drought emergency by gearing up to assist water utilities in any way we can to prepare for and respond to impacts from the drought. Consumer education and system preparedness will be key factors for each and every utility in our state. We will be working to assist you in these efforts in the weeks and months ahead. A key message for every resident of our state this year will be: Drinking Water – It's Worth Saving!

Water System Data Available on the Web

For the first time, the Division of Drinking Water is offering a basic set of public water system data on the internet. It includes a list of all public water systems with such information as address, population served, number of connections, and source. It does not contain detailed system-specific and water quality information, but does contain enough data to answer many of the questions that typically come from governmental agencies, organizations, consultants, and the general public.

The information is in downloadable text files that can be easily imported into spreadsheet or database programs such as Excel and Access.

You can get the files at http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/data_download.htm

Contact Ronnie Woolrich at (360) 236-3092 if you have questions. In the future the division hopes to make more and more data available to the public on the internet.



It's Worth Saving Drinking Water

The Division of Drinking Water is pleased to unveil a new graphic identity for its water conservation program. The division is committed to help water systems improve efficiency and find solutions to water challenges facing communities statewide. Clean, safe drinking water is an essential commodity ~ and it's worth saving.

Don't Put It Off: What You Can Do Right Now

Drought conditions can have devastating effects on water supplies. During normal years, peak summer water demands 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, it is important to take action now, before the peak water use season begins. The department recommends you take the following steps to prepare:

Educate your customers about water use efficiency. Now, more

than ever, is the time to stress the importance of wise use of water. The department has regional office staff available to help with developing a water use efficiency program, and conservation brochures are available for use (see page 8).



Start checking water levels in your wells or other sources. Check

weekly if you can, and keep records so you'll spot

changes. For help, contact your regional office.

Prepare a water shortage response plan. Do you know what to do when water supplies run low? Thinking ahead and developing a plan can help tremendously when problems arise. Guidance on development of water shortage response plans can be obtained from your regional office or

on the web at http://www.doh.wa.gov/ehp/dw/drought/DROUGHT_FINAL.doc

Look for alternate sources of water for use during an emergency. Now is the time to develop an intertie (interconnection) with a neighboring water system, or get an emergency water source ready for use. For help, contact your regional office.

Have your emergency 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 they are ready to use when you need them. 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 supply. Help from qualified professionals on leak detection and repair is available (See page 8).

Limited Emergency Drought Funding is Available



Governor's Locke's declaration of a drought emergency on March 14, 2001 included the commitment of funds for emergency drought relief. A portion of those funds is available for public water supplies.

Funding: About \$1 million in grant/loan combinations.

Who may apply: Publicly-owned municipal water systems, including special purpose districts.

Where to apply: Department of Ecology, Water Resources Program.

Eligible projects:

- | | |
|---|---|
| <ul style="list-style-type: none">• Modification of an existing source or deepening an existing well• Development of an emergency or alternate water source• Replacement water sources• Construction of an emergency intertie to another approved public water supply• Transmission pipelines | <ul style="list-style-type: none">• Discharge lines• Diversion structures• Pumps and accessories• Source meters• Leak detection and repair (particularly if unaccounted for water is greater than 20 percent) |
|---|---|

Certain costs associated with water conservation efforts, acquisition of alternate water sources, and transfer of water rights are also eligible. More information: Department of Ecology, Water Resources Program (360) 407-6630.

Sources and Areas Vulnerable to Drought

Not all water systems are equally affected by drought. Vulnerability depends not only on the amount of local rainfall and snowmelt, but on the nature of the source and the geology and geography of a particular area.

Vulnerable Sources

Systems that draw drinking water from surface sources are among the most vulnerable.

The Department of Health has identified 158 public water systems serving more than 15 connections that use surface water sources in Washington. They serve an estimated 2.3 million people in their homes, as well as thousands of businesses, schools, recreation areas, and other places where people drink water.



A map showing these 158 systems is on the web at: [http:// www.doh.wa.gov/ehp/dw/Images/surfacetrdroughttjpgghi.jpg](http://www.doh.wa.gov/ehp/dw/Images/surfacetrdroughttjpgghi.jpg)

Vulnerable Geographic Areas

Many water systems in the state depend on relatively shallow wells, wellfields, springs or other types of groundwater collection systems. Water systems using these types of sources are also among the most vulnerable to drought conditions. Falling water tables coupled with high seasonal demands increase vulnerability.

Four major aquifer types or regional aquifer systems should be considered vulnerable under severe drought conditions:

Island aquifer systems which are entirely dependent on the direct recharge of the aquifer from local rainfall. In this setting all groundwater supplies should be considered vulnerable because all recharge to the aquifer (including deep wells) comes from rain falling on the islands. These include the San Juans, Island County, and other Puget Sound islands.

Peninsular or other isolated coastal aquifer systems whose shallow wells, wellfields and springs are also dependent on local rainfall for the recharge of the aquifer. These are



mainly in Clallam and Jefferson Counties, south Puget Sound, Whatcom County, and around the Pacific coastal inlets of southwest Washington.

Regional surficial aquifer systems like those found in the Quincy Basin, the Pasco Basin and the Abbotsford - Sumas aquifer which are characterized by shallow wells and high water table conditions. These are mainly in Douglas, Grant, Adams, Benton, Franklin, Walla Walla, Columbia, and Whatcom counties.

Shallow wells, wellfields, and springs located throughout the Puget Lowland Glacial Aquifer System, which are at risk for reduced recharge, falling water tables, and competing demands on groundwater. This aquifer system generally extends from the shores of Puget Sound inland from 10 to 30 miles.

A map showing these four areas is on the web at: [http:// www.doh.wa.gov/ehp/dw/Images/gwdrought.jpg](http://www.doh.wa.gov/ehp/dw/Images/gwdrought.jpg)

Washington Drought Statutes in Effect

Governor Locke's declaration of a drought emergency empowered the Department of Ecology to initiate RCW 43.83B -the Washington Drought Statutes. The law gives Ecology three primary mechanisms to help individuals and communities cope with drought:

Emergency drought permits - These permits would allow the withdrawal of water from the ground, a lake, or a stream to replace water that is not available because of the drought. However, because most of the water that can be used in Washington is already being used, it is very unlikely that Ecology will issue emergency water permits.

Temporary transfers of water rights - People with existing water rights may apply for temporary changes to those rights (i.e., changing the source of the water, where it is used, or how it is used) to help reduce the effects of the drought. State law waives requirements for public notification and other environmental review, so Ecology will be able to rapidly process applications and make decisions about water transfers within 15 days after receiving an application.

Funding assistance - See article on page 3.

For more information, contact the Department of Ecology, Water Resources Program, at (360)407-6630.

Drought Survey Results:

Large water systems are concerned, but generally well prepared.

In March, the Department of Health surveyed all public water systems serving 1,000 or more customers to find out:

- How vulnerable water systems think they are to the state's current drought.
- How they are responding to and preparing for the drought.
- What kinds of state government assistance are needed.

These systems serve 4.3 million people, the great majority of the state's population. Of 198 utilities surveyed, 193 responded.

Responses on vulnerability:

High	9 utilities	(5%)
Moderate	73 utilities	(38%)
Low	101 utilities	(52%)
No answer	10 utilities	(5%)

Systems reporting high vulnerability:

- City of Kent
- Sammamish Plateau Water & Sewer District
- Covington Water District (King Co.)
- Fruitland Mutual (Pierce Co.)
- City of Port Townsend
- City of Omak
- City of Goldendale
- Ocean Park Water Company
- Surfside Homeowners Association (Pacific Co.)

Forty-six systems said they are already experiencing a decline in water quantity. Eighty said they anticipate water shortages if dry weather patterns continue (28 minor, 48 moderate, 4 severe).

Many said they can handle drought impacts this year, but a multi-year dry weather pattern could have serious future impacts on water supply. Power interruptions could affect the ability to pump and treat drinking water.

Responses on readiness:

High	72 utilities	(37%)
Moderate	105 utilities	(54%)
Low	13 utilities	(7%)
No answer	2 utilities	(1%)

Nearly half are now following a water shortage response plan or emergency management plan, and over 80 percent are educating customers on water conservation.

The need for state assistance:

- Customer conservation materials - 73%
- Leak detection and repair (& funding) - 55%
- Workshops on drought response - 50%
- Emergency construction funding - 35%
- Site visit by Dept. of Health staff - 19%

Nearly all systems (85%) said they are willing to give neighboring water systems assistance such as water service through emergency interties, water filling stations, technical assistance, and equipment. Thirty-two said they have water trucks to provide water to others. Many want to cooperate in constructing emergency interties.

Another major need: Water right permit flexibility for prevention of water shortages or outages. Forty-five utilities said they expect to submit a request for an emergency water right transfer or change this year.

Conclusions:

- Reliability of ongoing delivery of safe drinking water is a key public health issue.
- Large water systems are concerned, but generally well prepared.
- Long-term drought would have more significant impacts.

The full report is on the web at http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/drought.htm

Drought Response and Preparation:

What DOH is Doing and How We Can Help You...



Reliable ongoing delivery of safe drinking water is an important public health issue, with added challenges during a drought.

Our recent survey found that the state's 196 largest water systems are concerned about the drought, but generally prepared.

While most of the state's population is served by these large water systems, there are hundreds of thousands of people who get their drinking water from small public systems and private wells. Consequently, the department will also be reaching out to small systems and local health jurisdictions.

The department's action with respect to drought is in several main areas: technical assistance, water use efficiency, communication, water rights, and emergency preparedness.

Large Water Systems

It is very important that the state's largest water systems are well positioned to handle drought. Based on information from the recent survey (page 5) the department is taking the following actions with the state's largest water systems.

Technical Assistance and Training

We are providing technical assistance to large utilities that indicated they are vulnerable, with top priority to the nine utilities reporting high vulnerability and others most at risk to shortages.

We are emphasizing assistance needs identified by utilities - especially water conservation materials for customers, leak detection and repair, and drought response planning workshops.

Part of the plan is to enable the large utilities to provide help to smaller water systems that are not as well positioned or prepared to handle drought.

Media Messages

We are working with other state agencies and major water purveyors to develop statewide conservation messages in the media. These messages should be in concert with those provided by major utilities.

Water Rights and Drought Funding

We are coordinating with the state Department of Ecology on administration of emergency funding to ensure that limited funds go to communities most in need (page 3).

We are also coordinating with Ecology on emergency water right applications by public water supplies (page 4). Our role is to help speed up approval in cases where there is a real emergency and the proposed water right action will not create a health hazard.

Emergency Preparedness and Response

We will be expediting our approval process for all projects designed to prevent or respond to water shortages and outages. We are maintaining a resource list of agencies and facilities available for emergency response, including information on utilities with emergency water trucks. We will be working closely with utilities to ensure that any new interties and emergency water sources provide safe drinking water.

Small Water Systems

Small water systems are likely to face even more significant challenges during drought conditions. Unlike the largest water systems in the state, small systems tend to have fewer water sources and less flexibility in responding to shortages. They generally have less experienced operators - in many cases volunteers - and do less water shortage and emergency planning.

Given the large number of small water systems in the state (about 16,000), the department is focusing its resources on two primary areas:

- Communications to raise awareness and promote conservation and preparedness.
- Technical assistance to systems most vulnerable to drought.

Experience from past droughts indicates that the most vulnerable small systems are those with these types of water sources and aquifer conditions:

Surface water sources, particularly in watersheds where there are heavy demands on the water, not just for drinking water, but for other uses such as agriculture, fisheries, and industry.

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Shallow wells, particularly those less than 100 feet deep.

Springs

Aquifers that are highly dependent on recent rainfall for recharge.

Group A Water Systems

Assistance to 4,000 small Group A water systems with between 15 and 1,000 connections will focus on:

- A broad communications effort aimed at raising awareness, identifying resources, and promoting preparedness and water use efficiency. Specific activities include a web site, conservation materials for utilities and customers, and ongoing coordination with other state agencies on statewide communications.
- Special mailings to systems with vulnerable water sources, also aimed at raising awareness, identifying resources, and promoting water use efficiency and preparedness.
- Responding to requests for assistance from utilities, focused on preventing water shortage and outage emergencies. Examples of technical assistance activities include water use efficiency, water shortage planning, development of model drought ordinances, safe use of emergency sources, identification of alternate sources of water, and leak detection.
- Responding to water shortage and outage emergencies. In order to ensure quick, knowledgeable response to emergencies, the following preparation is underway:
 - Enhancing emergency response procedures and providing guidance to staff, water system operators, and others.
 - Building relationships with county and state emergency management agencies before emergencies occur.
 - Continuing to staff an emergency phone line that is available to utilities after business hours (page 11).

Group B Water Systems

In close coordination with local health jurisdictions, the Department of Health is developing a communication and technical assistance strategy for the smallest water systems in the state - the 12,000 Group B water systems serving between 2 and 14 connections.

Private Wells

Guidance materials for individual private well owners are also planned.

Safe Use of Emergency Drinking Water Sources

If your usual water sources can't meet your customers' basic needs, even with water use efficiency in place, you may have to consider using emergency sources. You can't always anticipate emergencies, but a drought allows you to do some advance planning.

The department has been developing detailed guidance for water systems to use when planning for and using emergency sources. It should be final by the time this newsletter is distributed and available from your regional office.

In general, here are some things to consider if you think you might have to use an emergency source:

- Be ready to test the water for contaminants. The Department of Health will require documentation that an emergency source is safe from a public health standpoint. At the very least, tests for coliform bacteria and nitrates will be required.
- Find out what you can about activities such as agriculture and industry that might threaten the water you are considering as an emergency supply.
- Review the emergency response program in your Water System Plan or Small Water System Management Program. Update the plan if necessary.
- Think about the additional treatment and other precautions that might be necessary if you had to activate an emergency source. Plan in advance if any probable activities, such as disinfection, are beyond the scope of your normal operations.
- Be prepared for more intensive monitoring and testing than you ordinarily do.
- Consider what steps you would take, especially with regard to customer communications, if you had to issue a boil water notice regarding an emergency source.
- Be aware that interties with other systems can expose your system to new sources of contamination.

Note: Remember that you can not use an emergency source without getting approval from the Department of Health. Contact your regional office sooner rather than later for help in planning for and using such sources.

Water Use Efficiency Can Reduce Drought Impacts

Water use efficiency can preserve or expand a water system's physical capacity and help you reliably provide customers adequate amounts of clean, safe drinking water - now and in the future.

Many water systems use water use efficiency measures as a cost-effective alternative to developing new sources or building new infrastructure when faced with supply, demand, delivery, or operational challenges.

Water conservation is always good policy. Now, with water shortage conditions facing systems across the state, it is even more critical. Some measures are part of a long term strategy and are useful all year round.

Others can bring immediate savings, reduce the likelihood of shortages or outages, and help minimize peak demand impacts.

Leak Detection

Ten percent or less unaccounted-for water is the recommended standard, but if a water audit shows that a system has more than 20 percent unaccounted-for water, the Department of Health requires actions to identify and address the deficits.

One of the most common causes of unaccounted-for water is leaks in the distribution system. Finding and fixing them saves water immediately. Major leaks are usually obvious, but finding many others may require a systematic leak detection process:

1. Conduct a preliminary survey to determine obvious leaks and water losses through malfunctioning pumps, valves, meters and other hardware.

2. Measure water flow by isolating each distribution zone, then listening to water movement, testing pressures, and watching tank levels and meters to determine leakage.
3. Pinpoint leaks with listening devices.
4. Record the size and location of leaks.
5. Repair the found leaks. Depending on the extent of the leaks, the repairs may need to be scheduled into a capital improvement program.

Leak detection can be done either by a utility crew or by a contracted firm. Evergreen Rural Water of Washington (509-962-6326) offers leak detection and water audit training, and provides leak detection services to systems with less than 10,000 connections in cooperation with the Division of Drinking Water.

Customer Communications

Customer communications is an important part of successful water conservation efforts. Motivating customers to voluntarily save water can bring both peak-demand and year-round reductions in water consumption. Timely and effective communication is particularly important when there is a potential for water shortages.

Crisis or not, managers will see positive results when customers are aware of water supply and delivery issues and know what they can do to save water. A consistent and sustained customer information effort will bring measurable results for the system and perhaps prevent or forestall future shortages.

Individuals receive and process information in different ways, so it's important to communicate with customers in a variety of methods and formats. It's particularly important that water conservation messages be consistent and repeatedly delivered.

The most effective approach to delivering information is through a planned campaign that pays attention to both

(Continued at right)



materials and tactics. Promoting specific conservation measures during different seasons or distributing conservation tips regularly will help conservation stand out in customers' minds. For systems with limited financial resources, a customer conservation promotion package could include:

- Brochures (distributed through libraries, businesses, utility or government offices)
- Water bill stuffers and messages printed on the bill
- Door hangars (distributed by meter readers)
- Public signage
- A display promoting the efficient use of water
- Newspaper articles or guest editorials
- Newspaper, cable television, and radio public service announcements
- Public access cable television "bulletin boards"
- Newsletter articles
- Conservation speakers (service clubs, neighborhood associations, homeowners groups, etc.)

Measures to Save Water

Internal ~ The water system undertakes these measures, such as meter installation, distribution system leak detection and repair, implementation of rate structures that encourage the resourceful use of water by the customer, and bills showing consumption history.

External ~ The water system develops these but directly involves customers in taking action to reduce water use. Such measures include distribution and installation of water-saving devices and fixtures, and residential and commercial water audits.

Customer information ~ Pertinent and timely information delivery is an essential component of internal and external efforts, and can in itself lead to customer water use reductions.

For maximum effect, water use efficiency programs should include a mix of internal, external, and customer information measures, tailored to meet the needs of the system and customers.

Water Use Efficiency Information and Assistance is Available

The Department of Health has produced a series of fact sheets to give water systems information about developing water use efficiency programs. Topics include leak detection, metering, rate structures, system water audits, financial resource information, and more. Conservation brochures that give customers suggestions for saving water at home and at work are also available.

The fact sheets and brochures are available online at: http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/purveyor.htm

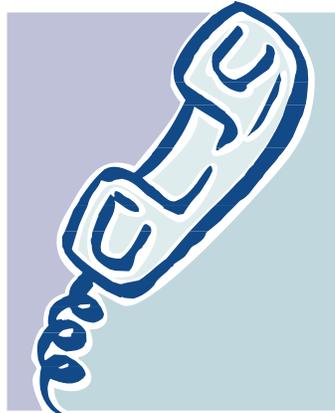
Printed copies of the fact sheets are available to system managers, and bulk quantities (up to 2,000 copies) of the conservation brochures are available for distribution to customers. For information on printed materials, contact Karena McGovern at 360-236-3130.

Water conservation specialists in Division of Drinking Water regional offices can help you develop water use efficiency programs: Northwest Regional Office 253-395-6769, Southwest Regional Office 360-664-2543, Eastern Regional Office 509-456-5067.

(At Right) Regular meter reading is a big part of the Scott Lake Maintenance Company's success in reducing water consumption, and volunteers such as Paul Eddy, a board member and chairman of the water committee, help out. In 1996 Scott Lake, south of Olympia, was faced with system uses exceeding water right limits. Focused efforts to reduce consumption and increase efficiency have resulted in a nearly 50 percent decline in per connection consumption.



Training and Education Calendar May - Nov. 2001



To register call these contacts...

WETRC

Washington Environmental
Training Center
253-288-3369

AWWA

American Water Works
Shauna Crane
206-362-8100

Judy Grycko
1-877-767-2992

ERWOW

Evergreen Rural Water
of Washington
509-962-6326

<u>Date</u>	<u>Topics</u>	<u>Location</u>	<u>Contact</u>
May 1-3	Water Distribution Certification Examination Review	Everett	WETRC
May 2-4	PNWS American Water Works Assoc. Annual Conf.	Yakima	Judy Grycko
May 8-10	Cross Connection Control Specialist Cert. Review	Everett	WETRC
May 9-11	Cross Connection Control Specialist Cert. Review	Moses Lake	ERWOW
May 15-17	Water Distribution Certification Examination Review	Yakima	WETRC
May 22	Water Audits and Leak Detection*	Colville	ERWOW
May 22-24	Cross Connection Control Specialist Cert. Review	Richland	WETRC
May 23	Water Audits and Leak Detection*	Ritzville	ERWOW
May 24	Water Audits and Leak Detection*	Grandview	ERWOW
May 24	Wellhead Protection*	Elmer City	ERWOW
May 23-25	Basic Electrical	Yakima	WETRC
May 25	Wellhead Protection*	Kettle Falls	ERWOW
May 30	Wellhead Protection*	Omak	ERWOW
May 31	Water Audits and Leak Detection*	Chelan	ERWOW
June 5	Water Audits and Leak Detection*	Bellingham	ERWOW
June 6	Water Audits and Leak Detection*	Issaquah	ERWOW
Jun 5-7	Pump Operation and Maintenance	Auburn	WETRC
Jun 8	Asbestos Cement Pipe Work Practice Procedures	Auburn	WETRC
Jun 12-13	Process Control and Instrumentation	Yakima	WETRC
June 28	Unique Water Projects Night	Bellevue	Shauna Crane
July	Seattle Public Util. Tolt Treatment Plant Tour On-Site		Shauna Crane
July 10	Drought Issues*	Colfax	ERWOW
July 11	Drought Issues*	Wilbur	ERWOW
July 12	Drought Issues*	Yakima	ERWOW
July 17	Drought Issues*	Pt. Angeles	ERWOW
July 17	Trenching & Shoring*	Woodland	ERWOW
July 18	Trenching & Shoring*	Shelton	ERWOW
July 18	Drought Issues*	Mt. Vernon	ERWOW
July 19	Drought Issues*	Lacey	ERWOW
July 24	Trenching & Shoring*	Wenatchee	ERWOW
July 25	Trenching & Shoring*	Spokane	ERWOW
Aug 14-15	Water Operator Certification Exam Refresher*	Moses Lake	ERWOW
Aug 21-22	Water Operator Certification Exam Refresher*	Issaquah	ERWOW
September	Disinfection & Disinfection By-Products	Bellevue	Shauna Crane
Sep 10-11	ERWOW Fall Conference	Ocean Shores	ERWOW
October	Basic Electrical Training	TBA	ERWOW
Oct 15	Chlorination Basics*	San Juan Islands	ERWOW
Oct 17	Chlorination Basics*	Winthrop	ERWOW
Oct 23	Chlorination Basics*	Deer Park	ERWOW
Oct 24	Chlorination Basics*	Pomeroy	ERWOW
November	Basic Water Works for Office Staff	Kirkland	Shauna Crane

Additional Training Links:

AWWA King County Subsection Website - <http://www.homestead.com/awwakcsb>

ERWOW Website - <http://www.ERWOW.org>

WETRC Website - <http://www.ivygreen.ctc.edu/wetrc>

*Indicates training is
less than \$25.00

**For the complete Training Calendar visit the Drinking Water
Homepage & click on Training - www.doh.wa.gov/ehp/dw**

After Hours Drinking Water Emergency Hotline

Toll free 1-877-481-4901

Call this number after hours if an emergency threatens your system or the health of your customers and can not wait until the next business day. Division of Drinking Water staff are available around the clock to help.

Who It's For

The service is for water system operators, local health officials, laboratory operators, and others who need immediate technical, engineering, or public health advice from state drinking water experts during emergencies.

The hotline is intended for after-hours emergencies only, and not for routine business. If you have an emergency that arises during normal business hours call our regional office:

Northwest (253) 395-6750

Southwest (360) 664-0768

Eastern (509) 456-3115

Examples of emergencies

- A midnight landslide damages your distribution system.
- You find out Friday evening before a three-day weekend that your repeat samples were E. coli positive.
- A major source of water is suddenly unavailable.

How It Works

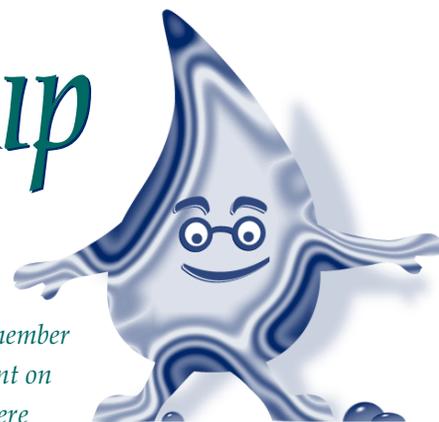
The hotline gives you fast access to on-call drinking water experts who will consult with you.

When you call, an operator will ask you a few questions about who you are, what system you represent, and what the problems is. The staff person on call will then call you back within 30 minutes.

Callers who are clearly seeking routine business will be asked to contact their regional office during business hours.



Dr. Drip



Dear Dr. Drip,

You call this little spell of nice weather a drought? Some of us remember the big one back in the '70s that went on for years. It was so dry my cows were giving evaporated milk. It got so bad the fish had ticks.

We had two inches of rain last week. I've got moss in the cold cupboard, mold in the cellar, and mushrooms sprouting in the trunk of my car. Drought schmut! Let me know when we have a real problem.

I.B. Alwett

Dear I.B.,

It's true that some places in the state are less affected by the drought than others. Local conditions - weather, water table levels, stream flow - may make your area less vulnerable to drought impacts, at least for the time being.

A drought is, by definition, a changing phenomenon. Drought severity is affected by rainfall, snowmelt, length of the drought, and many other factors, all of which change over time and may differ from place to place.

Nevertheless, the experts say we're having a moderate to severe drought over the entire state of Washington. It began last year and is expected to continue. (See map on page 1.) The Governor's drought declaration issued March 14 authorized the Department of Ecology to declare a statewide emergency.

While this drought has not yet gone on as long as the drought of the '70s, some factors have combined to make the situation especially difficult. There are more people in the state now, and more intense demands on a limited supply of water. The listing of salmon as endangered species is a new consideration. Power shortages make new demands on hydroelectric dams. Irrigation is more widespread than in the '70s. There's more competition for fewer available water rights. Emergency sources of water are threatened with new types of contamination.

So please, count your blessings, but don't discount the need to use efficiently the water you have. And don't be fooled by a few spring rains. In general throughout Washington, precipitation for this year is running about half of normal.

Sincerely ~ Dr.Drip

Consumer Confidence Reports Due July 1

Certification Forms were Mailed Mid-April

Group A community water systems must send a brief annual water quality report to their customers and the department's regional offices by July 1. The requirement does not apply to non-community or Group B water systems.

The Consumer Confidence Report (CCR) summarizes information about the source and quality of drinking water, the source and health effects of any contaminants detected in the water, and how the system can be contacted.

Previously required by the Environmental Protection Agency under a federal regulation, the CCR is now required by state regulation. In adopting this regulation, the state did not change any of the requirements, so this year's report content and distribution requirements are the same as for previous years' reports.



The reports and the year 2000 certification forms should be sent to the regional office for your county. The year 2000 certification form was mailed to water systems in mid-April, but if you need a form, please go to www.doh.wa.gov/ehp/dw and click on Programs, Consumer Confidence Reports or contact your regional office for assistance.

In This Issue

The following people contributed to the production of this issue of the *Water Tap*: Donna Freier, Gregg Grunenfelder, Rich Hoey, Jim Hudson, Janice Keller, Steve Kelso - Editor, Judy Sides, Michele Vazquez, Ronnie Woolrich, and Brad Wright of Wright Communications.

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