

**THE SAFE DRINKING WATER ACT - ONE YEAR LATER**  
 by Dave Leland, PE

*In this issue, we draw from a number of sources to present an overview of progress during the past year on the national level to develop and implement new programs and standards authorized under the 1996 Safe Drinking Water Act. This will all ultimately have impacts on public water systems and how they are managed and operated. In our next issue, we will focus on our implementation work here in Oregon.*

*Much of the text here is modified from the American Water Works Association biweekly publication "Waterweek". We have assembled materials from May through September, 1997, and we thank AWWA for its use. We hope you will find this discussion helpful in sorting out and understanding the many development efforts underway. In addition, a comprehensive chart is included in this issue which shows at a glance all the major tasks for EPA and the states under the Act and their schedule. The chart was prepared by Bill Chamberlain of USEPA, Region X in Seattle, and we thank him for this contribution. We hope you will find it a useful reference tool.*

Other documents listed below can be accessed via the Internet at:  
<http://www.epa.gov/ogwdw/new.html> (EPA Office of Groundwater and Drinking Water)  
<http://www.asdwa.org> (Association of State Drinking Water Administrators)

**And, speaking of the Internet, check out the new Oregon Drinking Water website - it's packed with all kinds of useful information and links to other sites! (see article, page 7) You can access it at:**  
<http://www.ohd.hr.state.or.us/cehs/dwp/welcome.htm>

Dave Leland, P.E., is Manager of the Drinking Water Program

**RELEASE OF SEVERAL MAJOR DOCUMENTS  
 MARKS 1996 SDWA AMENDMENTS  
 ANNIVERSARY**

The 1996 Safe Drinking Water Act (SDWA) amendments mandated that several significant activities be completed by Aug. 6, the first anniversary of the law's enactment (see "Milestones" chart, pages 4 and 5). They included release by EPA of final guidance on source water assessment and protection programs, the initial list of Surface Water Treatment Rule compliance technologies for small systems and state-prepared lists of public water systems with a history of significant noncompliance. In addition, EPA continues to work with its own stakeholder groups to develop approaches for new drinking water regulations. Highlights follow.

**Source Water Assessment and Protection Programs guidance**  
 The final State Source Water Assessment and Protection Programs guidance marks the first major move to establish a state-led program to prevent contamination of drinking water supplies.

*continued on page 2 - USEPA*

**NATIONAL DRINKING WATER ADVISORY  
 COMMITTEE TACKLES  
 SDWA IMPLEMENTATION ISSUES**

The 1997 National Drinking Water Advisory Council (NDWAC) has made a host of recommendations and passed resolutions during the past year on dozens of Safe Drinking Water Act implementation issues. The NDWAC consists of 14 members from around the country (see list, "NDWAC", page 6). Many additional people are serving on working groups formed under the NDWAC to consider specific issues. The council has generally aimed to ensure that new regulations provide the maximum amount of state flexibility and do not go beyond statutory limits. Highlights follow.

*continued on page 2 - NDWAC*

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USEPA (continued from page 1)

The 148-page document, substantially based on stakeholder recommendations from the National Drinking Water Advisory Council, describes elements of a mandatory assessment program that EPA would approve and EPA recommendations for voluntary source-protection programs. It also describes financing opportunities via the Drinking Water State Revolving Loan Fund and other sources and links with other SDWA provisions and other federal programs. Release of the guidance triggers an 18-month period for states to submit program plans to implement the mandatory assessments. Assessments must be completed within two years of EPA approval of state plans. And while source-protection programs are voluntary, EPA is aiming to implement full protection programs for at least 60 percent of the population served by community water systems (144 million Americans) by 2005. The guidance is accompanied by three related documents:

-Guidelines for alternative monitoring requirements that can be established in states that have approved source water assessment programs and for systems that have completed such assessments.

-A list of state and EPA regional source water protection contacts.

-A guidance memo from EPA identifying key elements of state groundwater protection programs.

#### **Surface Water Treatment Rule technology list**

EPA's initial list of Surface Water Treatment Rule (SWTR) compliance technologies for three categories of small systems (those serving 10,000-3,301, 3,300-501 and 500-25) reflects several major changes to a draft version recommended by stakeholders. Released as guidance, the list is not intended to be comprehensive. Systems may use any technology that achieves compliance and the list does not override any SWTR requirements.

#### **Historical Significant Noncompliers List**

The Safe Drinking Water Act required that states develop lists of public water systems with a history of significant noncompliance with regulations, and indicate the primary reason for noncompliance. In Oregon, 358 water systems were in significant noncompliance during at least 3 quarters during 1994, 1995 and 1996. Of these, 49 appear to have fundamental lack of technical, managerial and financial resources needed to provide safe water on a reliable basis, and new program efforts will be made to assist these systems. The others had short-term financing or training problems.

#### **Public notice**

EPA held two public sessions on revising public notification rules to meet new SDWA provisions, the major provision of which is requiring all water systems to notify consumers within 24 hours of violations that can cause serious health problems. EPA plans to propose

the rule by September 30, 1998, and finalize it a year later. Key issues include defining what violations should trigger notice within 24 hours, determining the notification frequency of other violations and deciding how the annual Consumer Confidence Report should be used to meet notification requirements for community systems. EPA will hold an additional session in Seattle, Washington, on October 29.

#### **Radon and Arsenic**

Stakeholders provided input on radon occurrence issues, analytical methods, treatment technologies, multimedia issues and options for continued involvement. The rulemaking timetable calls for adoption of the final radon rule by August 2000. Stakeholders met to discuss EPA's plans for revising the arsenic standard by January 2001 and provide input on major technical and implementation issues, especially health effects research. The American Water Works Association (AWWA) recently expressed concerns about EPA's schedule for completing research to support the arsenic rulemaking.

NDWAC (continued from page 1)

#### **Small systems**

The full NDWAC voted to forward to EPA the final recommendations of the NDWAC Small Systems Working Group as the basis for developing several draft guidance and information documents for public review.

The working group produced eight documents, recommending that three be in the form of guidance to promote national-level accountability: ensuring that new systems demonstrate capacity, preparing capacity development strategies, and assessing capacity of systems seeking Drinking Water State Revolving Fund assistance. Four are informational to help states take advantage of their implementation flexibility: legal authority to ensure that all new systems demonstrate capacity, options for developing capacity development strategies, options for assessing capacity of systems seeking DWSRF assistance, and assistance in developing affordability criteria. A fifth information document is to help the public participate in developing capacity development strategies. The guidance and information documents are expected to be published in November for public review. Guidance must be finalized by next August while information on affordability criteria is due by February 6.

#### **Consumer Confidence Reports**

Community water systems will be required to issue their first annual report to consumers in early 1999, covering the 1998 period. NDWAC members resolved a host of key issues that had stymied the Consumer Confidence Reports (CCR) Working Group. The NDWAC recommended:

- Reporting levels of detected contaminants in whole numbers.
- Not including any directive regarding the SDWA allowance for EPA to require health effects language for up to three regulated contaminants detected at levels below their respective MCLs.
- Making it optional to include 1) test results for contaminants for which a rule has been proposed or a health advisory has been issued and 2) generic language describing sources of drinking water and bottled water and sources of certain types of contaminants.
- Requiring systems that detect *Cryptosporidium* or radon to report results and explain their significance.
- Giving states the option whether to make reports from all their systems available to the public or provide a list of all system phone numbers.
- Not requiring reports to include information on known sources of contamination (but they must notify consumers of the availability of source water assessments).
- Not requiring reports to include a warning concerning the special vulnerabilities of pregnant women and children.

#### **Contaminant selection**

NDWAC members approved final recommendations from the Occurrence and Contaminant Selection Working Group, which settled on a draft list of 58 chemical and 13 microbial contaminants EPA will consider for regulation or other actions (see Table, page 6). The group boiled down an initial list of 380 contaminants to 71 using occurrence and health concern criteria they developed specifically for selecting the first list of candidate contaminants. The working group will next meet in early November to review public comments on the draft and to discuss criteria for selecting future candidate contaminants and the national occurrence data base project.

#### **Drinking Water State Revolving Fund**

Working group members discussed EPA-developed issue papers dealing with two key issues: state limitations on system eligibility based on system size, loan amount and ownership, and limits on using DWSRFs to finance projects that include growth.

**Eligibility.** Some states have sought to set minimum system-size requirements based on trying to avoid disproportionate administrative burdens for very small loans, concerns about default rates and a desire to maximize health benefits by focusing on projects that benefit the greatest percentage of the population.

Citing SDWA provisions specifically intended to give small systems access to DWSRF resources, EPA asked group members to consider whether states should have

such flexibility, and if so, to what extent. They were also asked to decide whether EPA should provide incentives for states to include very small systems.

EPA also asked the group to consider whether states should have the flexibility to set minimum loan amounts or loan ceilings, whether there are alternate ways to ease the small-loan burden and whether EPA should discourage maximum loan amounts.

Regarding ownership, the group discussed EPA's interpretation that states can exclude privately owned water systems from DWSRF loans if state law explicitly prohibits such a practice (11 states now have such laws) but states without such laws cannot deny assistance to private systems. EPA notes that Congress specifically intended loans for private systems.

EPA sought working group input on whether it should withhold DWSRF grants to states that lack a statutory prohibition but ban loans to private systems anyway and whether DWSRF grants to states where such loans are prohibited should be reduced given that the allocation formula is based on total needs.

**Growth.** Noting that the SDWA specifically prohibits use of DWSRF loans if a project's primary purpose is to meet or attract growth in demand, EPA described ways states can use DWSRF resources to fund projects sized to meet "an appropriate level" of growth expected over the useful life of a facility and sought input on other means to make such determinations.

#### **Source Water Assessment and Protection**

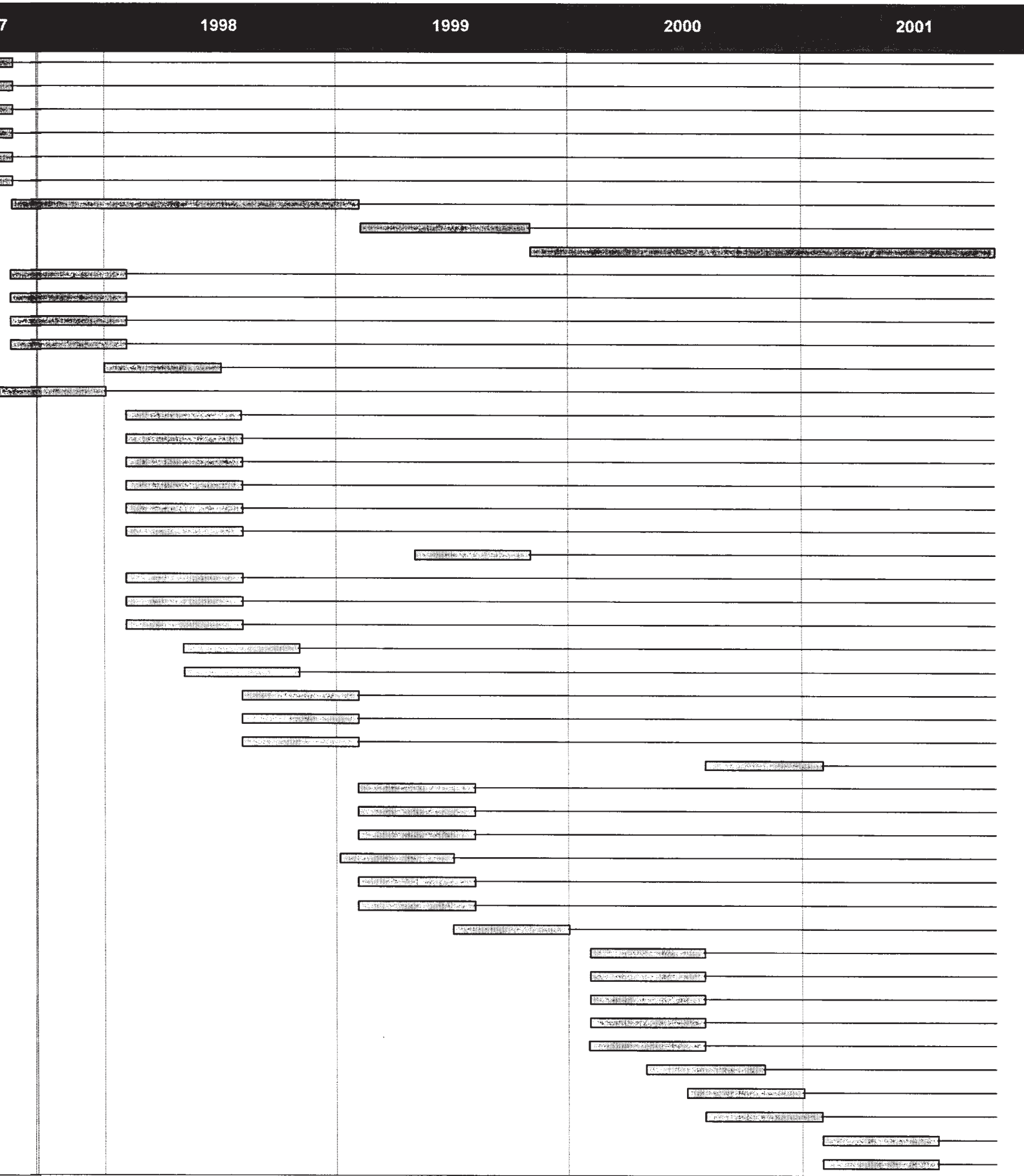
The National Drinking Water Advisory Council approved final recommendations to EPA regarding the source water assessment and protection (SWAP) provisions of the 1996 SDWA amendments. (See accompanying article, page 1).

#### **Operator Certification**

Working group members began finalizing recommendations on nine minimum standards for state programs. The group will meet again to conclude its work on its recommended information documents for consideration by the NDWAC. The group discussed three of the nine standards: authorization; classifying systems, facilities and operators; and operator qualifications. Others address renewal, recertification, implementation resources, stakeholder involvement, enforcement and program review. Members also completed review of the newest standard on enforcement. EPA must publish the operator certification information by February. It has another year after that to publish guidance specifying minimum certification and recertification standards.

Task Name	End Date	199
(states) Historical SNC List	8/5/97	
Guidance establishing procedures for State application for ground water protection grants	8/5/97	
Publish list of technologies meeting the SWTR for systems serving 10,000-3,300 / 3,300-500 / 500-25 persons	8/5/97	
Issue guidelines for alternative monitoring requirements	8/5/97	
Guidance to States to assist in developing source water petition programs	8/5/97	
Guidance to States for developing SWAPs	8/5/97	
(states) Submission of State assessment program	2/5/99	
(EPA) Approval of State SWAPs	11/1/99	
(states) Completion of all assessments in State	11/1/01	
Publish information on recommended operator certification requirements developed with States, PWS, and the public	2/2/98	
Publish information to assist States in developing affordability criteria developed in consultation with States and USDA	2/2/98	
Publish contaminants not subject to any proposed/final national primary drinking water regulation (must include sulfate)	2/2/98	
Final MCLG and rule	2/2/98	
Annual Report on summarizing and evaluating State compliance reports	7/1/98	
(states) States submit first annual compliance report	1/2/98	
Regulation on Consumer Confidence Reporting	8/3/98	
Review and revision of existing requirements for not fewer than 12 contaminants	8/4/98	
Determine State compliance with Operator Certification requirements for SRF withholding determinations	8/4/98	
Promulgate regulations for variances (in consultation with States)	8/4/98	
Conduct waterborne disease occurrence studies for at least 5 major U.S. communities or PWSS	8/4/98	
Publish guidance describing legal authorities, etc. to ensure new CWSs and NTNCWSs demonstrate capacity	8/4/98	
(states) Obtain legal authority to ensure new systems have capacity	11/1/99	
Publish guidance on variance technologies for systems serving 10,000-3,300 / 3,300-500 / 500-25 persons	8/4/98	
Publish list of technologies that comply w/existing rules (except SWTR) for systems: 10,000-3,300 / 3,300-500 / 500-25	8/4/98	
Publish guidelines for small system water conservation programs	8/4/98	
Promulgate Stage I Disinfectants and Disinfection Byproducts Rule	11/2/98	
Promulgate Interim Enhanced Surface Water Treatment Rule	11/2/98	
Publish health risk reduction and cost analysis for potential radon standards	2/2/99	
Complete sulfate study with CDC to establish a reliable dose-response relationship	2/2/99	
Publish guidelines (w/states) specifying minimum standards for certification and recertification of operators	2/2/99	
(states) Adopt and implement operator certification program	2/2/01	
Propose radon standard	8/4/99	
Evaluate State ground water protection programs. Report to Congress	8/4/99	
Issue list of 30 contaminants to be monitored by PWSS and to be included in national occurrence data base	8/4/99	
(states) States petitions to list particular contaminants	7/1/99	
Establish National Occurrence Database. Periodically solicit recommendations for inclusion of additional contaminants	8/4/99	
GW disinfection Rule: Publish Disinfection Requirements and criteria to determine need for in-ground water systems	8/4/99	
Propose standard for arsenic	12/31/99	
Promulgate final radon standard	8/1/00	
Promulgate with final an alternative MCL and publish guidelines for multi-media mitigation measures	8/1/00	
Promulgate a regulation for filter backwash recycling within the treatment process of a PWSS	8/1/00	
Conduct studies to identify subpopulations at greater risk and report to Congress	8/1/00	
Report to Congress -- Transfer of Funds	8/1/00	
Promulgate Final Enhanced Surface Water Treatment Rule	11/1/00	
Promulgate final standard for arsenic	1/2/01	
Report to Congress -- Needs Survey	2/1/01	
Prepare a report with CDC on findings of waterborne disease occurrence studies	8/2/01	
Make determinations of whether or not to regulate at least 5 contaminants from proposed contaminant list	8/2/01	

State Milestones



NDWAC Members (\* designates new member)  
**L.D. McMullen**, general manager, Des Moines (Iowa) Water Works  
**Maurice Arel**, president, Pennichuk Water Works Inc., Nashua, N.H.  
**Patrick Banegas**, \* general manager, Anthony (N.M.) Water and Sanitation District  
**Walter Bishop**, general manager, Contra Costa Water District, Concord, Calif.  
**James Cleland**, director, Michigan Drinking Water and Radiological Protection Division  
**Diane Kiesling**, commissioner, Florida Public Service Commission  
**Nina McClelland**, consultant, Ann Arbor, Mich.  
**Paul Nannis**, \* health commissioner, City of Milwaukee  
**Diana Neidle**, \* public policy associate, Consumer Federation of America, Washington, D.C.  
**Susan Seacrest**, president, Groundwater Foundation, Lincoln, Neb.  
**John Scheltens**, city engineer and public works director, Hot Springs, S.D.  
**James Tripp**, \* general counsel, Environmental Defense Fund, New York, N.Y.  
**William VanDeValk**, principal, Lamont VanDeValk Engineers, Cobleskill, N.Y.  
**Thomas Yohe**, \* vice president of water quality, Philadelphia Suburban Water Co.

Contaminants for Future Regulation

**Chemicals:**  
 1,3-Dichloropropene (telone or 1,3-D)  
 1,1-dichloropropene  
 1,1,2,2-tetrachloroethane  
 1,1-dichloroethane  
 1,2,4-trimethylbenzene  
 1,3-dichloropropane  
 2,4-dinitrophenol  
 2,4-dichlorophenol  
 2,4,6-trichlorophenol  
 2,2-dichloropropane  
 2,4-dinitrotoluene  
 2,6-dinitrotoluene  
 2-methylphenol (o cresol)  
 Acetochlor  
 Acetone  
 Alachlor ESA  
 Aldrin  
 Aluminum  
 Asulam  
 atrazine-desethyl (triazine degradate)  
 Bensulfuron methyl  
 Bentazon  
 Boron  
 Bromacil  
 Bromobenzene  
 Cyanazine (as total triazines)  
 Cyclohexadiene-1,4-dione, 2,6-bis  
 (1,1-dimethylethyl) 2,5-p-cymene  
 (p-isopropyltoluene)  
 DCPA mono-acid metabolite  
 DCPA di-acid metabolite  
 DDE  
 Diazinon  
 Dieldrin  
 Dimethoate  
 Disulfoton  
 Diuron  
 EPTC (s-ethyl-dipropylthiocarbonate)  
 Fonofos

Chemicals (*continued*)  
 Hexachloro-butadiene  
 Isopropylbenzene (cumene)  
 Linuron  
 Manganese  
 Methyl-t-butyl ether (MTBE)  
 Methyl bromide (bromomethane)  
 Metolachlor  
 Metribuzin  
 Molinate  
 Naphthalene  
 Nitrobenzene  
 Organo tins  
 Prometon  
 RDX (cyclo trimethylene trinitramine)  
 Rhodamine WT  
 Sodium (guidance for sensitive  
 subpopulations expected)  
 Terbacil  
 Terbufos  
 Vanadium  
 Zinc

**Microbials:**  
*Acanthamoeba* (guidance expected for  
 contact lens wearers)  
 adenoviruses  
*Aeromonas hydrophila*  
 caliciviruses  
 coxsackieviruses  
*Cyclospora cayetanensis*  
 echoviruses  
*Helicobacter pylori*  
 Hepatitis A virus  
*Legionella* (in groundwater)  
*Microsporidia (enterocytozoon &  
 septata)*  
*Mycobacterium avium intracellulare*  
 (MAC)  
*Toxoplasma gondii*

## DRINKING WATER PROGRAM GOES ONLINE

by Patrick Meyer, MPH

A vision has finally been fulfilled — the Drinking Water Program is now online and open to the world at large. It has been a dream to have available to the public and water systems in Oregon many of the resources we have in an online format. That dream has now been achieved with the opening of the program's web page. Point your Internet browser to [www.ohd.hr.state.or.us/cehs/dwp](http://www.ohd.hr.state.or.us/cehs/dwp). There is a lot of information here and a lot more will be added as we come across it and hear from you on what you would like to see.

Here is a quick tour to whet your appetite. A word on the format of documents here: all were converted to the Adobe PDF format. PDF allows us to create an exact copy of the document that you can copy to your computer, read, and print. Your copy will look exactly like the original. It means that you no longer have to call, ask for a form, and wait for it in the mail; you can go to the web site, find your form, print it off and have what you need — 24 hours a day, seven days a week. The PDF reader (Acrobat) is free from Adobe - a good deal. If you do not have it already installed in your browser there is a link (a spot to take you to somewhere else) at the bottom of each page to Adobe to get the Acrobat reader. Now back to the tour.

We have the "Pipeline" going back to July 1991, we have our rules (water system, operator certification, cross connection and realty transaction) ready for your use, more forms than you could probably fill in or use in a day covering everything from monitoring to groundwater to certification, the manuals for the Small Water System training course, manuals for helping you with groundwater protection, fact sheets on a whole range of chemicals and other nasty items, everything you need to know about cross connection, all the material needed to become a certified operator, construction standards, and much, much more.

So stop by and peruse to your hearts content. If you do not see something you think should be there, let me know and I will do my best to get it there. This site is intended to help spread and provide information for water systems and the public so send an email to me: [patrick.j.meyer@state.or.us](mailto:patrick.j.meyer@state.or.us) or call (503) 731-4381 if we missed something.

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Patrick Meyer, MPH, is in the Monitoring & Compliance Unit, Drinking Water Program

## PUBLIC WATER SYSTEM VIOLATION DATA NOW ONLINE!

Ten years of compliance data is now online at the "ENVIROFACTS WAREHOUSE" at: <http://www.epa.gov/enviro/index.html>

### "WATER ON TAP" REPORT AVAILABLE

EPA has prepared a report entitled: "Water on Tap: A Consumer's Guide to the Nation's Drinking Water". This report provides information about the quality of U.S. drinking water safety, and addresses a variety of concerns that apply to many regions and situations.

The report stresses the need for people to take more individual and community-level responsibility for drinking water quality. It urges them to contact local utility officials with questions; read reports sent to them about the local water supply; and most importantly, become good water stewards themselves.

Water suppliers may find the report useful as a reference when they prepare their consumer confidence reports in the future.

Everyone needs to help prevent contaminants from entering source waters in the first place. Protection of the watershed goes hand-in-hand with ensuring the appropriate treatment is provided by the utility. People should begin with the information that EPA has prepared in this report, continue to learn more, and care more and do more for drinking water.

The topics covered in the report include:

- How Safe Is My Drinking Water?
- Where Does My Drinking Water Come From?
- How Much Drinking Water Do We Use In Our Homes?
- How Will I Know If My Drinking Water Remains Safe In the Future?
- How Can I Help To Protect My Drinking Water Supply?
- What Can I Do If There Is A Problem With My Drinking Water?
- What Do I Need To Know To Protect My Private Drinking Water Supply?

To obtain a copy of the report, write to:

Water on Tap, #634D, Consumer Information Center,  
Pueblo, CO 81009

or access it on the internet at: [www.epa.gov/ogwdw/wot](http://www.epa.gov/ogwdw/wot)



Drinking Water Program, Oregon Health Division  
 Department of Human Resources  
 P.O. Box 14450  
 Portland OR 97214-0450

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## TRAINING CALENDAR

### AWWA PNWS

Judy Grycko/(503)246-5845  
 Nov. 13 Communicating With  
 and Involving the Public  
 in Drinking Water Issues  
 Teleconference

### OCT, Inc.

Robert Funk/(503)650-8735  
 Nov.17-21 Water/Distribution Operator  
 Cert. Review Grades I-III  
 Jan. 5 SDWA Regs. for Water Plant  
 Operators

### WETRC

1-800-562-0858  
 Nov. 4-6 Pump O&M  
 Jan. 7-9 Water Cert. Exam Review  
 Jan. 20-22 Water Cert. Exam Review

### Arasmith Consulting Resources

Event Solutions  
 Amy Fries/(541)928-5055  
 Dec. 2-4 O&M of Chlorination  
 Systems

### Cross Connection/Backflow Courses

Backflow Management Inc. (B)  
 800-841-7689  
 Clackamas Community College (C)  
 (503) 657-6958 ext. 2364

### Backflow Assembly Tester Course

Dec. 1-5 Bend (B)  
 Dec. 8-12 Oregon City (C)  
 Jan. 19-23 Medford (C)

### Backflow Assembly Tester Retraining/ Recertification

Dec. 5 Oregon City (C)

Cross Connection Inspector Course  
 Nov. 17-20 Oregon City (C)  
 Dec. 1-4 Portland (B)

Cross Connection Inspector Update  
 Nov. 21 Oregon City (C)

### Water System Training Courses

Oregon Health Division/(503)731-4317  
 Nov. 6 Deer Island  
 Nov. 24 Tillamook

### California State University, Sacramento

Home Study Courses in Water Treatment,  
 Dist. and Small Water System O&M.  
 Contact: Ken Kerri/(916)278-6142, E-mail:  
 water office @csus.edu, Website:  
<http://www.owp.csus.edu> for information.

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