

THE OREGON SAFE DRINKING WATER REVOLVING LOAN FUND - FULL STEAM AHEAD!

In our Fall/Winter 1997 edition, we rolled out the beginning of this important program. In this issue, we give an update of accomplishments since then, and a brief description of several safe drinking water projects from around the state: some that are completed, some that are underway. Thanks go to the communities using the loan fund, and to staff of the Health Division and Oregon Economic and Community Development Department who make the funds available. Good work, everyone!

Dave Leland, Manager, Drinking Water Program

HIGHLIGHTS - THE FIRST FIVE YEARS

by Dave Phelps

- Over \$28.3 million in capital improvement loans from the Safe Drinking Water Revolving Loan Fund to water systems statewide.
- A total of 26 projects received Safe Drinking Water Revolving Loan Fund financing.
- All 26 projects solved public health problems that would have resulted in serious compliance actions if they had not been corrected with capital improvements.
- Two water systems completed their projects and returned to compliance. Their customers now receive safe drinking water.
- 25 loans were made to small water systems, those serving 10,000 or fewer people.
- 20 loans were made to cities, 4 loans made to water districts, and 2 loans to private investor-owned or non-profit water systems.
- The largest loan was for \$4.0 million, and the smallest loan was for \$36,165.
- Since 1998, the first year the Loan Fund was available, a total of 317 projects requested \$230.4 million in Safe Drinking Water Revolving Loan Fund assistance. The Loan Fund has \$66 million available for lending.
- Interest in Oregon's Safe Drinking Water Revolving Loan Fund increased in 2000 when loan rates were reduced and "loan forgiveness" was established for financially disadvantaged water systems.

Dave Phelps is Funding Coordinator in the Protection & Development Unit of the Drinking Water Program / (503) 731-4010 or daven.m.phelps@state.or.us

IMPORTANT REMINDERS ABOUT CHEMICAL SAMPLING

Nitrate Sampling. ALL public water systems must test for nitrate at least once each year and report the results to the Health Division. Arrange your 2001 test soon if you haven't already!

VOC/SOC Testing. The 1999-01 compliance period ends December 31. All community systems and all nontransient noncommunity systems (such as schools and places of employment) must sample during this compliance period. If you still need to do your test, arrange for it soon to avoid lab capacity problems late in the year!

VOC/SOC Testing - EPA Requirements. You may recall that both the USEPA and the Oregon Secretary of State recently pointed out that our minimum state testing frequencies are less stringent than those of EPA. We have committed to fixing that discrepancy for the 2002-04 compliance period. State rules currently require one VOC/SOC test per source entry point during each 3-year compliance period. We will continue to follow that frequency to determine your compliance status for 1999-2001.

We summarize the minimum on-going test frequencies of the EPA rule on Page 6 (not for initial testing of new water sources or for systems with detectable levels of contaminants). This is for your information if you wish to assure that your system meets EPA minimum test frequencies during the current compliance period (1999-2001):

Continued on page 6

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DRINKING WATER REVOLVING LOAN FUND PROJECTS AROUND OREGON

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NORTHWEST REGION

Youngs River- Lewis and Clark Water District - Clatsop County



The Youngs River-Lewis and Clark Water District, which serves 2,500 people, is located between the City of Astoria and the City of Warrenton at the mouth of the Columbia River is in the final construction of its new 0.5 MGD Pall membrane filtration plant. The District with the help of state and federal funds will on completion of the plant meet the mandated requirements for filtering it's drinking water under the Surface Water Treatment Rule. At the present time the water is just chlorinated. Included in the project was replacement of one-mile of old steel intake line with HDPE pipe. This will be the first public water system in the State of Oregon with this form of treatment. Estimated water rate upon completion of this project \$49.22.

Loan Execution Date: May 19, 1999

Project Funding:

Safe Drinking Water Loan:	\$ 1,290,000
(20 years @ 4.1%)	
Water/Wastewater Grant:	\$ 500,000
Total project cost:	\$ 1,790,000

CENTRAL REGION

City of Wasco - Sherman County

The City of Wasco is a small rural community of 420 people. The City will obtain the engineering for an estimated \$1,350,000 water system improvement project with a \$150,000 low interest loan from the Oregon Safe Drinking Water State Revolving Fund. When the construction phase is complete, it will correct a recurring bacteria problem in Wasco's water system, which led to its listing by the Oregon Health Division as a Significant Non-Complier. The bacteria problem is being temporarily addressed with interim chlorination equipment installed during a construction project that replaced two old reservoirs and a main line into town in order to provide ample storage and fire flows to a prospective business. This first phase was financed with the state's Special Public Works fund.

The \$150,000 Safe Drinking Water State Revolving Fund award will finance all of the engineering services for the final phase of the improvements. Because Wasco qualified as a Disadvantaged Community, the \$150,000 award is offered at 1% for a 20-year term. The City of Wasco has applied to Oregon Economic and Community Development Department for construction financing of the remaining \$1,350,000 improvements.

Loan Execution Date: April 17, 2000

Project Funding:

Phase I	
Special Public Works Fund	\$ 600,000
Phase II	
Safe Drinking Water Loan:	\$ 150,000
(20 years @ 1%)	
Unidentified	\$ 1,350,000
Total project cost:	\$ 2,100,000

VALLEY / MID-COAST REGION

City of Lowell -- Lane County



The City of Lowell, located near Dexter Lake, serves drinking water to 1,100 people. The City’s water filtration plant built in 1969 treated water from Dexter Lake. Taste and odor problems associated with algae led to discontinued use of the treatment plant. In the 1970’s, several wells were drilled, but these were plagued with high arsenic levels, poor supply capacity, and malfunctioning pumps. In 1995, the production capacity from the well supply diminished from 200 to 80 gallons per minute and was not meeting system demand. When water line pressures often fell below 20 psi during peak demand times, the City issued a “boil water” alert to protect residents from a potential serious health threat.

A Water System Master Plan completed in 1998 found that limited ground water supply and uncertainty about meeting maximum contaminant levels for arsenic, made utilization of the Dexter Lake surface water source, once again the preferred alternative. A low interest loan of \$223,000 from the Safe Drinking Water Revolving Loan Fund will be combined with an Oregon Community Development Block Grant of \$645,000 to construct the improvements necessary to eliminate the water shortage and threat to public health. Funding will allow for rehabilitation of the water treatment plant including new filters, piping, metering, chemical feed equipment, a raw water intake pump and mixer, a sedimentation basin, modifications to the clearwell to increase chlorine contact time, telemetry and controls, and equipment for the laboratory.

Loan Execution Date: August 24, 2000

Project Funding:	
SDWRLF Loan:	\$223,000
Other Sources:	<u>\$645,000</u>
Total Project Cost:	\$868,000

SOUTHWEST REGION

City of Bandon - Coos County

The City of Bandon is a small coastal community in southern Oregon. Its water system, serving a population of 2,800, is nearing completion on modifications that include treatment plant improvements to meet current and future needs, pump replacement to increase efficiency and effectiveness, construction of a new water storage reservoir to augment existing capacity, installation of new waterlines to improve hydraulic efficiency and replace deteriorated lines, and impoundment dredging to remove sedimentation. The improvements will provide the community a reliable water source by alleviating public health concerns associated with microbial risk, storage capacity, and enhanced flow capability. This will create a system that is in compliance with federal and state drinking water standards.

Loan Execution Date: July 12, 1999

Project Funding:	
Safe Drinking Water loan	\$ 500,000
Other Funding Sources:	<u>\$ 4,700,000</u>
Total Project Cost:	\$ 5,200,000

EASTERN REGION

City of Burns - Harney County

This municipal water system serves 2,800 people in rural, distressed Harney County. The City will construct a new 2.5 MG reservoir and associated transmission lines to solve storage, pressure and water loss problems. In addition, the project will update the chlorination system, install a telemetry system, and correct a valving problem that affects the inter-tie with its neighbor, the City of Hines. Installing a new distribution system and providing a new, reliable source of water will alleviate public health concerns by eliminating microbial risk and low pressure problems and bring the system into compliance with federal and state drinking water standards.

Financial Award Date: March 29, 2001

Project Funding:	
SDWRLF	\$1,786,000
Other Sources:	<u>\$ 556,000</u>
Total Project Cost:	\$2,342,000

TECHNICAL ASSISTANCE PROVIDER STARTS WORK

Poage Engineering and Surveying, Inc., of Eugene, is now under contract to the Health Division to provide technical assistance to water suppliers with groundwater sources that serve fewer than 10,000 people. Tom Poage and his staff are very experienced in the drinking water field having been in business since 1974. Poage Engineering has also partnered with Anderson-Perry Engineer to provide a broad range of services to the entire state.

These services are provided at no cost to the water supplier, and the contractor can assist with short-term operational problems and provide resolution plans for compliance problems. Feel free to contact the firm directly at (541) 485-4505 or on the Internet through their website at www.poage.net to request a technical assistance visit. Look for a direct link from OHD's website to Poage Engineering in the coming weeks!

RULES AND WEBSITE MATERIALS AVAILABLE ON CD!

The drinking water rules are now available on CD. The CD also includes all the informational material that is posted on our web page. To get your CD, contact Marsha Fox at (503) 731-4988.

FACTS ABOUT DRINKING WATER IN AMERICA

- Only 1% of the Earth's water is fresh water available to people to drink (97% is salt water, 2% is frozen).
- The U.S. has access to about 2,500 cubic kilometers of fresh water - less than 1/20th of 1% of the total amount of fresh water available.
- Americans tap into those resources for about 370 billion gallons of water every day.
- The U.S. withdraws more water from its resources than any other country in the world.
- Of the amount withdrawn in the U.S., only 1% is used for drinking water. About 40% is used for agriculture, 38% for hydroelectric power, 8% for industrial use, and 6% is used for household purposes.
- There are 54,000 community water providers in the U.S. They provide 90% of the population with their tap water.
- About 3,000 of those community water providers are utilities that provide more than 75% of the nation's water.
- About 60% of those community water providers are municipally owned; 40% are investor-owned.
- 82% of large water utilities have their own water laboratories on site.
- More than 90% of American water utilities are in full compliance with federal regulations annually.
- Water utilities contribute millions of dollars annually to independent research efforts and research partnerships with USEPA and other interested parties.

(Source: American Water Works Association)

EPA ISSUES ORDER TO OREGON MOBILE HOME PARK

by Harold Rogers

As part of an ongoing effort to protect the purity and insure the safety of Oregon's drinking water, the U.S. Environmental Protection Agency has issued an administrative order to an Oregon drinking water supplier for failure to comply with the Safe Drinking Water Act. The order requires the water system to comply with testing and reporting to the public about their drinking water quality.

The order is the first direct EPA action under the federal Safe Drinking Water Act since 1986, when the State took over enforcement responsibility to ensure Oregon water suppliers comply with federal drinking water requirements. EPA is taking the enforcement action against Marie Benz of the Appleblossom Mobile Home Park located in Silverton, Oregon, at the request of the State Health Division after continued State efforts to obtain compliance were unsuccessful.

According to Michael Bussell, Deputy Director of EPA's Office of Water in Seattle, EPA and the Health Division agreed to share the enforcement responsibilities against water suppliers in Oregon who persistently violate the drinking water rules.

"The Health Division has made repeated efforts to obtain the missing data from this system," Bussell said. "They have previously taken an action and have given the water supplier every opportunity to comply with that action."

Appleblossom Mobile Home Park is one of seven drinking water systems recently referred to the EPA by the Health Division for repeated testing and reporting violations. The Health Division has already assessed civil penalties against water systems for testing and reporting violations, but a few continue not to test or report the quality of their drinking water. Violation of an EPA order could result in an administrative civil penalty of up to \$25,000 or a civil penalty of \$27,500 per day of violation.

Four of the water systems referred to EPA by the State have already decided it is easier to cooperate with the State and do the required testing and reporting than contest the EPA's administrative order and penalties. "Although enforcement action can be taken by EPA, we prefer to encourage voluntary compliance with the State," said EPA's Bussell. "Oregon water suppliers can comply with the rules on time, comply with a State action as prescribed, or they can choose to meet with the EPA.

Harold Rogers is the Safe Drinking Water Program Coordinator, Oregon Operations Office, USEPA Region X. He can be reached in Portland at (503) 326-2715.

DROUGHT

by Dave Leland

The weather conditions of 2000-01 raise the possibility of water shortages in the Pacific Northwest this summer, at least in some areas. You may have heard about local drought declarations in Klamath, Jefferson, Crook, and Wasco counties. The State of Washington has issued a statewide drought declaration. Now is a good time for public water suppliers to consider their own vulnerabilities to supply shortage, be aware of statewide planning efforts, and review or develop their own local plans to deal with drought. The article below reviews state drought planning efforts, and the questionnaire on page 7 gives you an opportunity to make us aware of any problems that you are anticipating. We encourage you to read the article, and complete the questionnaire. In addition, you can view more drought information on the Water Resources Department "Drought Watch" web page (http://www.wrd.state.or.us/drought_watch/index.shtml).

Dave Leland, Manager, Drinking Water Program

PLANNING FOR DROUGHT

by Barry Norris

During our most recent drought cycle (1987-1992), Oregon state officials decided to develop a written format for response and mitigation activities. As state officials worked their way through development of the process it became apparent that a drought emergency is different from other emergencies. The reason is that a drought is normally very slow in developing, and the associated problems can vary from year to year and from basin to basin in many different ways. While some folks might be enjoying the "good weather", others are suffering financial losses; while some folks find the dry weather an opportunity to extend their normal dry weather recreation activities, others see their recreation activities lost from fish and wildlife kills and wildfire potential.

Our experience in Oregon tells us that the most effective measures for mitigation and response include a good program for monitoring statewide conditions, close coordination among state "experts" who are involved in reporting statewide conditions, and a good public information program. While these activities do not actually provide direct mitigation, they promote public awareness and allow individuals and organizations to make preparations.

A second important factor in drought response and mitigation is to approach special water management practices with caution. It is easy for regulation activities to fall into a trap of invoking special use permits in a manner that will actually encourage more than normal use in some areas.

Oregon Drought Mitigation and Response

From the beginning of our effort in developing a state drought plan it was evident that we needed to concentrate on three things:

1. Close coordination among state and federal agencies.
2. Procedures for obtaining the best data available on statewide conditions.
3. Establish a strong network and public information program to make data on existing conditions available.

Certainly many factors such as mitigation activities were also found to be important. But it was apparent from the beginning that flexibility was most important, and specificity of mitigation options is high priority. It was also necessary for those involved in the planning process to be aware of budget restraint realities. We realized there was no potential for developing an entirely new funding mechanism for drought response and mitigation without the curtailment of other state programs. Since the Governor already had the authority to reallocate existing resources under a declaration of emergency, there was no effort to limit this existing flexibility.

The Oregon drought plan provides for a state Drought Council that is chaired and facilitated by the Emergency Management Division. Members of the Council include state agencies (including the Water Resources Department and the Health Division), federal agencies, and private organizations. There was and still is no effort to restrict membership when defining the Council.

The Drought Council is responsible for assessing the impact of drought conditions and making recommendations to the Governor's senior advisors. They are advised by a subcommittee of technical people who monitor conditions throughout the state and report them monthly in a publication. In this manner the Drought Council keeps up to date on water conditions. Members combine this knowledge with information they bring from their organizations and differing geographic areas as they go about making recommendations for response, policy, and mitigation.

The heart of the matter is the process of determining a menu of mitigation options that is fair, equitable, economically realistic, and environmentally responsible. As an example, when surface water is in short supply irrigators turn to groundwater. The added stress to groundwater aquifers may be environmentally feasible in some instances, and not in others. The argument can be made that, even in groundwater aquifers that are already stressed, short term use is feasible. However, groundwater pumping installations are expensive to develop and, once installed, they are not easily abandoned. Short term use easily becomes long term use, considering it is more reliable, and environmental problems grow.

The extent of the mitigation activities available for recommendation by the Drought Council include public information and proposals for reallocation of existing resources to be considered by the Governor. When a statewide emergency is declared by the Governor, existing resources are not normally reallocated for mitigation purposes. The Governor simply stresses the need for state agencies to perform as best they can in mitigation activities already included in existing programs.

A major component in the success of a state drought program is the emphasis given on coordination, communication and accuracy. The Drought Council subcommittee responsible for water condition assessments includes the major people in the state that the media looks to for water condition assessments. Through monthly meetings and other frequent contacts these individuals are able to tell the same story. In response to the need for an objective index for measuring drought severity, the subcommittee developed an objective index called the Surface Water Supply Index (SWSI). This index is very helpful in describing conditions to the media, and relating them to past drought events.

The SWSI is an index of current water conditions throughout the state. This index utilizes parameters derived from snow, precipitation, reservoir, and streamflow data. The data is gathered each month from key stations in each basin. The lowest SWSI value, -4.1, indicates extreme drought conditions. The highest SWSI value, +4.1, indicates extreme wet conditions. The mid-point is 0.0. This indicates a normal water supply.

Generally, water condition assessments coming from the Drought Council subcommittee are accepted. Additionally, through the Drought Council state and federal agencies are able to coordinate and provide public information about federal programs that are available to help agriculture. The Drought Council acts as a clearing house for people with questions, and for requests for state and federal drought declarations.

While the executive branch of state government was going about the business of responding to drought emergency, the 1990-1991 legislature studied the possibility of adopting special laws that would give water managers extraordinary authority to conserve and reallocate scarce water supplies during an emergency. Obviously there was a broad spectrum of ideas and extraordinary authorities presented and sponsored by the many special interest groups that follow water issues in Oregon. In very general terms, the debate can be separated into two categories: Those that wanted every available drop protected for fish and wildlife, and those that wanted every available drop used to protect against crop loss and other financial disasters.

The resulting drought legislation from the 1990-1991 legislature did a good job of balancing both sides of the issue. It includes extraordinary measures that can only be enacted in an area where the Governor has declared a drought emergency. Residents of these areas are then eligible for emergency water use permits to supplement existing uses. However, the emergency permits are subjected to a limited public interest review, and they can only be used on areas that have an existing water right that cannot be used because of drought conditions. Use from the new source cannot harm an existing use, and it must be determined that no harm to the public interest will occur. Additionally, the legislation also contained provisions for allowing government jurisdictions to enter into option/agreements for moving water from one location to another, and placing numerous individual water rights under one jurisdiction for control and allocation. Use can be intended for various uses including irrigation and instream. These legislative provisions were used extensively during the summer of 1992, and with considerable success. During our current drought period, the drought of 2001, a number of emergency drought permits have been granted.

Barry Norris, Administrator of the Technical Services Division, Oregon Water Resources Department / (503)378-8455 ext 246.

Chemical Sampling (Continued from page 1)

SOC/VOC TESTING FREQUENCY CHART

	Groundwater Source	Surface Water Source	Population greater than 3,300	Population 3,300 or fewer
Synthetic Organic Chemicals (SOCs)			2 samples from consecutive quarters during one year in each compliance period, for each water source entry point	One sample per compliance period from each water source entry point
Volatile Organic Chemicals (VOCs)	One sample per compliance period from each water source entry point	One sample each year from each water source entry point		

DROUGHT PREPARATION QUESTIONNAIRE



**Submit Completed Form to: Oregon Health Division
 Drinking Water Program
 Attn: Diane Weis
 800 NE Oregon St.
 Portland, OR 97232**

Or FAX to: (503) 731-4077

1. Utility name _____
 County _____
 Public Water Supply ID number _____
 Population served: _____
2. Questionnaire filled out by (name and phone number) _____

3. How vulnerable is your water system to drought conditions? High , Medium , Low
 Describe: _____

4. If dry weather patterns continue, do you anticipate water shortage? Yes , No
 If Yes, do you anticipate Minor , Moderate , or Severe problems?
 Describe: _____

5. What specific water source(s) that you use would likely be affected by drought conditions?
 Surface water, river or stream (name of source _____)
 Spring(s)
 Shallow well(s), less than 100 feet deep
 Deep well(s), greater than 100 feet deep
6. Are you?
 Monitoring water levels/streamflows
 Experiencing decline in water quantity
 Experiencing decline in water quality
7. Do you have?
 your own drought plan or procedure
 Current water management plan as per Water Resources Department
 Current water curtailment plan as per Water Resources Department
8. Do you have interties with other local water systems that could be used under drought conditions? Yes , No
 Describe: _____

9. Do you have emergency water source(s) that can be used during drought conditions? Yes , No
 Describe: _____

10. Are you able to assist neighboring water systems if they are experiencing water shortage?
 Yes , No . How? _____

11. Do you anticipate need for state agency assistance?
 Water conservation information/materials
 Consultation on emergency water sources
 Assistance with water rights

Other comments: _____



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 Oregon Health Division
 Drinking Water Program
 P.O. Box 14450
 Portland OR 97293-0450



**PERIODICALS
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 PORTLAND, OR.**

TRAINING CALENDAR

OCT

1-888-248-2552

Sept. 4-6 Collections Cert. Review
 Oct. 8-12 Water Plant &
 Distribution Cert. Review

American Public Works Association

(541) 926-0044

Sept. 20-21 Working with
 Consultants & Contractors
 Oct. 3-5 Fall Conf.

Cross Connection/Backflow Courses

Backflow Management Inc. (B)
 (503) 255-1619
 Clackamas Community College (C)
 (503) 657-6958 ext. 2388

Backflow Assembly Tester Course
 Sept. 10-14 Redmond (B)
 Sept. 17-21 Portland (B)
 Sept. 17-21 Oregon City (C)
 Dec. 10-14 Oregon City (C)

Backflow Assembly Tester Recertification
 Dec. 7 Oregon City (C)

Cross Connection Inspector Course
 Nov. 13-16 Oregon City (C)
 Nov. 26-29 Portland (B)
 Dec. 3-6 Redmond (B)

Cross Connection Inspector Update
 Nov. 17 Oregon City (C)

Water System Training Course

Oregon Health Division
 Marsha Fox/(503) 731-4899
 Aug. 22 Klamath Falls
 Sept. 20 Bend
 Oct. Newport and Dallas
 Nov. Tillamook and Deer
 Island
 Dec. Pendleton

**Dates and exact locations to be announced*

EPA Drinking Water Academy

OAWU/(503) 873-8353
 Oct. 22-23 Risk Communication
 Workshop

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