

Protecting public health by assuring safe drinking water

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<http://oregon.gov/DHS/ph/dwp/>

DHS proposes new drinking water rules, announces public comment period

The Department of Human Services (DHS) recently filed proposed rules with the Secretary of State. These rules implement statutory provisions authorized by the 2005 Legislature for backflow prevention and direct lab reporting (*See article on right*). The rule proposals also increase current fees for plan review and operator certification to cover the department's costs to provide those services. Fee increases were recommended in 2004 by the Task Force on Drinking Water Program Workload and Funding (*See PIPELINE, Spring 2004*). These fees have not been raised since they were originally established in the 1980s. The proposed rules also include clarifications to a number of existing rules.

These proposed rules are open for public comment until January 12, 2006. Public hearings are scheduled for Portland (January 5), Roseburg (January 6), and Bend (January 12). The proposed rules, statement of need and fiscal impact, and notice of rulemaking hearings with times and locations can be obtained from our Web site at <http://oregon.gov/DHS/ph/dwp> or by calling our offices at (971) 673-0405.

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2005 LEGISLATURE REPORT

by Dave Leland

The 2005 Legislature was one of the most active and successful sessions for drinking water in recent memory. DHS tracked no fewer than nine drinking water bills. Three bills supported by the department passed. Drinking water bills discussed during the session involved direct lab reporting, backflow, drinking water program capacity, public water system definition, and drinking water fluoridation. This article summarizes those bills and their outcomes.

Direct Lab Reporting (SB 1080)

SB 1080 passed in the 2005 Legislature and requires labs to report to both DHS and the public water supplier the validated results of any drinking water compliance water tests that show contamination in excess of maximum contaminant levels (MCLs) established by the department.

Direct lab reporting was recommended to the Legislature in the 2001 Secretary of State audit of the drinking water program. The audit report cited the current reporting requirements as a "critical weakness," finding that water suppliers did not always report results of water tests to DHS. Specifically, auditors found tests in lab files with results in excess of MCLs that were not reported by the water supplier to the department as required. Legislators introduced direct lab reporting bills in 2001 and 2003 that did not advance beyond committees.

During the 2005 session, the League of Oregon Cities convened a stakeholder workgroup to attempt to develop bill language that would implement direct lab reporting in a limited way that could be supported by the DHS and stakeholders. The stakeholder workgroup reached a majority agreement on language requiring labs to report to the department and the water supplier the result of any validated compliance sample that shows contamination higher than MCLs. Currently, about two percent of all drinking water compliance test results show levels higher than MCLs. SB 1080 subsequently passed, and will take effect in January 2006. (*See article in left column*).

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Legislature 2005 — continued

DHS developed draft rules to implement SB 1080 by January 2006 (*See article on Page 1*). At the request of laboratories, the department will install a dedicated fax by the end of 2005 to receive test results from labs and provide the labs with proof of their required reporting to DHS.

Backflow (HB 3093, HB 3108)

Two bills relating to backflow prevention and testing passed in the 2005 Legislature, supported by the department and stakeholders. HB 3093 exempts plumbers from DHS requirements to obtain certification for testing and inspecting backflow assemblies, and requires the Department of Consumer and Business Services to develop rules requiring plumbers to complete backflow training approved by that department.

HB 3108 establishes an annual fee on community water systems to support the statewide oversight of local community backflow prevention programs. Existing fees for backflow device testing and inspection, combined with the new community water system fee, will fully pay for the department's costs of overseeing the statewide backflow program. The department developed draft rules to implement both bills by January 2006 (*See article on cover*).

Drinking Water Program Capacity (HB 2171)

HB 2171 would have established a new fee on public water systems to pay the department's costs in conducting required periodic sanitary survey inspections of those water systems. The bill passed the originating committee, but did not pass in the budget committee.

HB 2171 resulted from recommendations to the 2005 Legislature from the Task Force on Drinking Water Program Workload and Funding (*See PIPELINE, Spring 2004*). The task force found that DHS needs additional resources to fully implement current EPA drinking water regulations. The task force recommended that the Legislature authorize DHS to establish a new fee on public water systems for required sanitary survey inspections, and that the department increase current authorized fees for plan review and operator certification services to cover the full cost of providing these services. The task force further recommended that DHS use the increased fee revenue as match to obtain additional EPA funds to support the statewide drinking water program.

Although HB 2171 did not pass, DHS and the task force made the most of the opportunity to support the bill and inform legislators about the drinking water program and funding needs.

DHS developed draft rules to increase currently authorized fees for plan review and operator certification by January 2006 (*See article page 1*), and will return to the 2007 Legislature to ask again for the new sanitary survey inspection fee.

Public Water System Definition (HB 2472)

HB 2472 would have removed from state oversight nearly 1,000 very small public water systems serving 4–14 connections or 10–24 people, by changing the definition of a “public water system” contained in state law (*ORS 448*) to match the public water system definition of the federal Safe Drinking Water Act. DHS took a neutral position this bill, understanding the need to protect the health of people served by these water systems, but mindful that insufficient resources exist in the drinking water program to support any meaningful effort on these water systems. This bill did not pass in its original form, and was changed into a drinking water fluoridation bill later in the 2005 session.

Drinking water fluoridation

HB 2025, HB 2472, and SB 539 would have required public water suppliers serving 10,000 or more people to add fluoride to the drinking water to improve dental health. The department supported these bills. SB 851 and SB 852 would have established restrictions on drinking water additives that would in effect prohibit public water suppliers from adding fluoride to water supplies. The department opposed those bills. None of these bills passed, although there were spirited public hearings.

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Training calendar

CEUs for Water System Operators
Check www.oesac.com for new offerings approved for drinking water.

Cross Connection/Backflow Courses

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

Backflow Assembly Tester Course

Jan. 9-13	Portland (B)
Feb. 27-Mar. 3	Portland (B)
Mar. 13-17	Oregon City (C)

Backflow Assembly Tester Recertification

Mar. 3	Oregon City (C)
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Water System Training Course

Department of Human Services
Marsha Fox/(971) 673-0408
Feb.* Linn & Benton Counties
Mar.* Jackson & Josephine Counties

* Dates and locations to be announced

Waterborne disease outbreak strikes Oregon camp

by Dr. Paul Lewis and Chris Hughes

When 100 students and parents splashed through a wet week of outdoor school at Camp Yamhill (Yamhill County) in May 2005 no one knew that a “perfect storm” might have been hitting the camp’s water supply and treatment plant. By the middle of the next week more than 60 percent of the campers, parents and councilors had become ill with diarrhea triggering an intensive, but ultimately inconclusive, epidemiologic and environmental investigation.

Since students from five different, widely separated, schools attended the camp, it took parents several days to appreciate the magnitude of the problem; fortunately, one parent knew the Multnomah County environmental health manager who alerted both the state and county public health officials. By that time, stool culture results on two students already suggested that *E. coli* HO157 caused the outbreak.

The next day a team of DHS staff and Yamhill County Health Department staff including specialists in epidemiology, food safety and environmental health, visited the camp to inspect the site and to collect specimens, menus and clues.

The camp is located in rural northern Oregon, east of the coast range. Sysco, a large supplier, provides most food items pre-cooked or requiring minimal preparation or handling, and kitchen staff were well trained and had no reported illnesses prior to or during the outdoor school session. Water from the nearby river was treated with a diatomaceous earth filter and chlorinated prior to storage in a 7000 gallon clear well.

Students did a variety of outdoor school scientific experiments involving soil and river water but did not swim, collect or have direct contact with the river. Students also had recreational options on a “Challenge Course” that included balancing on wet logs and the “flying squirrel” in which they jump over the river suspended by ropes.

As soon as the investigators returned from the site visit, they drafted a questionnaire about food, activity and environmental exposures; 24 hours later, despite systematically interviewing more than 70 students, parents and councilors, the cause of the outbreak could not be identified. Ultimately, 99 camp attendees completed interviews; 61 percent reported diarrhea, some cases were severe. Clinicians who ordered stool cultures were often rewarded with one or more positive results as some patients grew two enteric pathogens. Illnesses began as early as the last day of camp and as late as seven days later but most occurred the weekend campers returned home.

The very high rate of illness among campers, the lab finding of multiple pathogens and the failure to identify a plausible food item suggested the source of illness might be something that everyone at camp encountered, such as the drinking water. The drinking water at Camp Yamhill met drinking water standards during the outbreak period, but a more careful review raised some concerns. Although the camp’s drinking water testing was current and the results were within the water quality standards, the diatomaceous earth filtration equipment being used was dated and more applicable to swimming pool treatment than to drinking water.

In recent years, improvements and expansion of the camping facilities at Camp Yamhill led to both increased camp use by large groups and extended the camp operations from summer seasons only to both spring and summer seasons. Rainfall and stream flow information from the week preceding the outbreak suggested that the drinking water treatment system might have been overwhelmed by unusually low quality raw water resulting from a very heavy spring rain and runoff event, possibly including contamination from cattle in the upstream watershed.

DHS deployed a technical assistance contractor to assist the camp in selecting and installing a new treatment system to improve drinking water safety. The camp installed a modular slow sand filtration treatment system to replace the diatomaceous earth filter system, and also modified the chlorine contact chamber to improve disinfection. Total construction time was 17 days with another 17 days for systems adjustments and filter ripening. While construction and filter ripening was underway, a water hauling truck was brought in with guidance from Yamhill County, and was used to provide water for drinking and cooking. Notices were placed throughout the camp to remind campers that tap water was not to be used for consumption.

The Camp Yamhill water system with the new slow sand filter became fully operational in early July with no further illnesses reported. The quick success of this project can be attributed directly to the communication and collaboration between county health departments, DHS staff, the technical assistance contractor, and ultimately, the diligence of Camp Yamhill.

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