

# PUBLIC HEALTH IMPROVEMENT PARTNERSHIP

## PUBLIC HEALTH ACTIVITIES & SERVICES

### Keeping Our Drinking Water Safe and Reliable

#### THE ISSUE

Safe and reliable drinking water is essential to human health, and it's a key component of economic vitality for the communities of our state.

Washington's public health system — 35 local health agencies and the Washington State Department of Health — carefully monitor the quality of drinking water.

The water we drink comes from underground sources or from rivers, lakes, and streams. All water sources are at risk of contamination from human and animal waste, and activities. However, surface water is more vulnerable, so it's monitored more closely.

Protecting our water is a huge job. It starts with monitoring water quality, and continues as we plan, prepare, and respond to emergencies such as floods and pipe breaks. We also annually certify 5,400 water system professionals who keep water systems operating safely, delivering drinking water to homes and businesses throughout the state.

A growing problem in Washington is the number of older systems with aging pipes and equipment. A recent estimate puts the 20-year system improvement need at \$9.7 billion.

The improvement cost will rise as economically pinched communities delay maintenance. In Washington public health regulates more than 17,000 water systems. These include 4,193 Group A systems (serving 15 or more connections) and 13,000 Group B systems (serving two to 14 connections, covering just two percent of the state's population). These range in size from the City of Seattle serving 184,030 homes and businesses to systems serving only two homes or businesses. The state regulates Group A systems and most local health agencies help monitor the smaller systems; often found in rural communities.

#### WHAT ARE WE DOING TO KEEP DRINKING WATER SAFE?

In 2009 Washington's public health system:

- Worked with water systems to issue 110 drinking water advisories to alert customers to potential health threats. We worked with the water utilities to make repairs.
- Inspected about 800 water systems to find potential problems early.
- Tracked 156,833 water sample results, looking for bacterial and chemical contaminants such as *E. coli*, nitrate, and arsenic. When contaminants were detected, public health worked with water systems to issue health advisories, if needed, and see that appropriate repairs were made. Water quality monitoring data is tracked over time so we have a good picture of water systems' health and water quality.

- Worked with training partners to ensure relevant education for the state's 4,000 certified waterworks operators and 1,400 backflow assembly testers.
- Worked with partners to help struggling water systems get grants and low-interest loans to make needed improvements more affordable.
- Required water systems to submit plans showing how they'll meet future needs.

### THE RESULTS

We've distributed \$468,501,800 in Drinking Water State Revolving Fund low-interest loans and grants to help water systems finance improvements since the fund was established in 1996. The need is great. In 2009 we received applications for federal economic stimulus funds totaling more than \$415 million. We had \$38.5 million to distribute.

Our aggressive sanitary survey program of Group A water systems is paying off. In 2009 77 percent of the 800 systems we surveyed had no significant public health risks. This is a slight improvement from 2008 when 75 percent of the systems surveyed had no significant public health risks.

Overall, our state has a good water-quality compliance record. For example, 98.6 percent of Group A water systems meet federal standards for nitrate. We continue to work on improvements with those that don't.

We're working with other state, local, and federal agencies to help solve public health problems, such as nitrate and bacterial contamination of private wells in the Yakima Valley.

### CHALLENGES

One of our biggest challenges is ensuring continued funding so we can keep providing needed services. As our ability to match federal drinking water funding diminishes, we're working to be more efficient; fee increases could make up some of the difference.

We're helping Washington's water utilities prepare for emergencies and adapt to conditions that could occur from climate change.

Small water systems serving fewer than 1,000 connections often lack resources to keep their systems in good working order. In recent years, the legislature has spent \$18 million on emergency repairs for these systems.

Most public health system enforcement actions are for small water system problems. In 2007 these systems accounted for 99.5 percent of all bacteria monitoring violations and 100 percent of federal drinking water standard violations for nitrate.

### WHAT'S NEXT?

We're working to improve small water system reliability and quality by encouraging consolidation, providing guidance on establishing sustainable rate structures, and ensuring that new small systems are designed well and set-up to be managed properly.

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ALWAYS WORKING FOR A SAFER AND  
HEALTHIER WASHINGTON