

ANNUAL  
**WATER REPORT**

*Water testing  
performed in 2010*



*Presented By*  
**City of Mercer Island**

PWS ID#: 536405

## Maintaining High Standards

Once again we are proud to present our annual water quality report. This report covers all testing performed between January 1, 2010 and December 31, 2010. Over the years, we have dedicated ourselves to providing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water protection, water conservation and community education while continuing to serve the needs of all our water customers. As your water utility, it is our goal to meet your need for a clean, plentiful supply of drinking water at a reasonable cost.

In April of 2009 the Washington State Department of Health (DOH) performed a sanitary survey of the City's water system. DOH Group A drinking water regulation, WAC 246-290-416, requires routine sanitary surveys of all Group A systems once every five years. The purpose of the survey was to assess the overall operation, maintenance, and management of the water system toward ensuring the distribution of safe and reliable drinking water.

DOH reported to the City of Mercer Island that their water system appears to be in great condition, a result of competent staff and a functional operations and maintenance program that continues to evolve based on education and experiences. The survey also noted that the facilities looked well maintained.

### Why Do I Get This Report Each Year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.

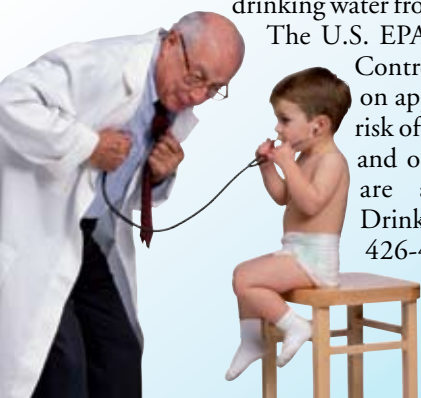
## Source Water Assessment

Washington's Source Water Assessment Plan (SWAP) is now available from the Department of Health (DOH) website at <http://doh.wa.gov/ehp/dw/default.htm>. This plan, conducted by the DOH Office of Drinking Water (ODW), is an assessment of the delineated area around their listed sources through which contaminants, if present, could migrate and reach our source water. By default, the DOH assigns a susceptibility rating of "high" for all surface water sources.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Where Does My Water Come From?

The City of Mercer Island receives its surface water supply from Seattle Public Utilities (SPU). Our primary water source from SPU is the Cedar River Watershed with the Tolt River's South Fork providing an alternate supply. SPU's uninhabited watersheds are supplied by the melting snow pack in the Cascade Mountains with supplements from our annual rainfall totals.

Each watershed is closed to unauthorized access and carefully managed to supply clean, pristine drinking water to more than 1.3 million people in the greater Seattle area. The rainfall and snow melt collected in the Cedar and Tolt rivers meet or surpass all Federal standards for drinking water. Water samples are tested every day for a wide variety of substances.

To learn more about their watersheds, treatment facilities, and their water quality analysis on the Internet, go to the Seattle Public Utilities Web site at [www.seattle.gov/util/About\\_SPU/Water\\_System/Water\\_Quality/index.asp](http://www.seattle.gov/util/About_SPU/Water_System/Water_Quality/index.asp).

## Water Conservation

In 2007, Mercer Island, as a member of the 17 local utilities that comprise the Regional 1% Saving Water Partnership, adopted the six-year regional conservation goal to help protect the long-term supply of drinking water and to promote good stewardship of water resources.

### Under this program, on Mercer Island during 2010:

- 120 homes installed high-efficiency clothes washers
- 17 homes performed automatic irrigation system upgrades
- 10 homes installed more efficient toilets
- 1 multifamily complex installed 15 more efficient toilets
- 1 multifamily complex participated in the WaterSmart Technology Incentive Program.

### Personal Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are few tips:

Automatic dishwashers can use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Turn off the tap when brushing your teeth, washing your face, or shaving.

Check every faucet in your home for leaks. Just a slow drip can waste many gallons per day. Don't forget to check those outside faucets as well!

Mulch your garden beds to retain a moisture layer.

## Substances That Could Be in Water

In order to ensure that tap water is safe to drink, the U.S. EPA and/or the Washington State Board of Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

### Pharmaceutical Compounds

The American Water Works Association reported the following comments to the U.S. Senate Subcommittee:

“The first priority of the water community is protecting public health. As part of that commitment, water professionals have been researching the occurrence of personal care products and pharmaceutical compounds in drinking water supplies for more than 30 years.

“Today’s advanced technology has allowed scientists to detect more substances—at lower levels—than ever before. To date, however, research throughout the world has not demonstrated an impact on human health from pharmaceuticals in drinking water at the trace levels at which they have been found. People regularly consume or expose themselves to products containing these compounds in much higher concentrations through medicines, food and beverage, and other sources.

“The ongoing conversation about these substances should remind us of how precious our source waters are and the need to protect them. The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean.”

For more information about contaminants and potential health effects, call the U.S. EPA’s Safe Drinking Water Hotline at (800) 426-4791.

## Community Participation

You are invited to participate in our public forum and share your comments about your drinking water. The Utility Board meets at 7 p.m. on the second Tuesday of most months, in the City Council Chambers at City Hall located at 9611 SE 36th Street, Mercer Island, WA. You can find meeting and contact information on the City of Mercer Island Web site at [www.mercergov.org/CCBIndex.asp?ccbid=8](http://www.mercergov.org/CCBIndex.asp?ccbid=8).

## IDSE Sampling

In 2008, The City of Mercer Island completed the Initial Distribution System Evaluation (IDSE), required by the U.S. EPA, in the Stage II Disinfectant By-products Rule (D/DBA). These evaluations are intended to identify locations in a distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

Using the criteria provided by the EPA, 8 data locations were analyzed and the results submitted to the EPA for their approval. The EPA determined that our low-threshold results require us to monitor four Stage II D/DBP sites beginning during the second quarter of 2012.

## Mercer Island’s Sewer Utility Enlists Your Help

Many items that should be placed in the garbage or recycled are finding their way into our public sewer system. This maintenance concern costs the sewer utility tens of thousands of dollars annually.

Items such as cleaning cloths, heavy paper products, mop heads, and personal care and hygiene products do not biodegrade and are major contributing factors to sewer backups on the island.

Other serious contributors are fats, oils, and grease. These by-products of cooking are found in such things as meat fats, cooking oil, lard, ice cream, shortening, butter, and margarine. When these by-products are washed down the drain, they stick to the inside of sewer pipes.

Garbage disposals do not keep grease out of the pipes; they only shred it into smaller pieces. Detergents initially dissolve grease during washing but eventually it solidifies either in your sewer or in the City’s mainline. Food scraps should be composted instead of placing them down the drain.

## Questions?

For more information about this report, or for any questions related to your drinking water, please contact the City of Mercer Island Maintenance Department at (206) 275-7608. This 2011 report, indicating water testing done in 2010, is also available on the City’s Web site at [www.mercergov.org/files/2010WaterQualityReport.pdf](http://www.mercergov.org/files/2010WaterQualityReport.pdf).

## Variations and Exemptions

As a consumer you are entitled to know what variations and waivers are in force with your water utility. The City of Mercer Island currently has one waiver with the Department of Health, related to asbestos-cement water main piping. The Washington State Department of Health does not require any water supplier to report on systems with less than 10 percent total asbestos-cement piping. Our waiver simply acknowledges that a very small amount of asbestos-cement pipe exists in our system. The water distribution system on Mercer Island is composed of 98 percent cast iron, ductile iron, or steel; the remaining 2 percent is AC (asbestos-cement) pipe. AC is an old material that is no longer used in construction, and the small amounts of material in our system pose no threat to drinking water quality. Furthermore, Seattle Public Utilities has not detected any naturally occurring asbestos in their watersheds.

## Storing and Treating Emergency Drinking Water

Having an ample supply of clean water is a top priority in an emergency. A normally active person needs to drink at least two quarts of water each day. You will also need water for food preparation and hygiene. Store a total of at least one gallon per person, per day. You should store at least a two-week supply of water for each member of your family.

Store your water in thoroughly washed plastic, glass, fiberglass, or enamel-lined metal containers. Plastic containers, such as soft drink bottles, are best. You can also purchase food-grade plastic buckets or drums. Seal water containers tightly, label them, and store in a cool, dark place. Rotate water every six months.

Boiling is the safest method of treating water. Bring water to a rolling boil for three to five minutes, keeping in mind that some water will evaporate. Let the water cool before drinking. Boiled water will taste better if you put oxygen back into it by pouring the water back and forth between two clean containers. This practice will also improve the taste of stored water.

For disinfection you can use household liquid bleach to kill microorganisms. Use only regular household liquid bleach that contains 5.25% sodium hypochlorite. Do not use scented bleaches, color-safe bleaches, or bleaches with added cleaners. Add 16 drops of bleach per gallon of water, stir, and let stand for 30 minutes. If the water does not have a slight bleach odor, repeat the dosage and let stand another 15 minutes. If, after the second treatment, the water doesn't have a bleach odor, use the water for flushing and begin a new treatment process.

## Checking a Toilet for Leaks

Unknown water use is most often the result of a leaking toilet. Sometimes toilet leaks aren't seen or heard. Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is a good idea to check each toilet for leaking at least once a year.

The main causes of a toilet leak are either a "fill valve" that will not shut off or a bad "flapper."

A fill valve problem will cause water to flow over the "overflow tube" because the water level is set too high or the fill valve won't shut the water off. If you can't adjust the water level lower or can't get the fill valve to shut off the water, replace the fill valve.

If you had water run into the bowl during the dye test and the water level is not set too high, your flapper is probably leaking, and it should be replaced. Flappers tend to harden more quickly when chlorine tablets are placed in the tank. If flappers aren't pliable, they will not completely seat and leaks will occur.

Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If the meter dial moved, you have a leak. Hint: Don't let that automatic ice maker fool you if it cycles on during this test.

For more Mercer Island conservation information, please visit our website at <http://www.mercergov.org/waterconservation>. The Washington State Department of Health has also provided information at <http://www.doh.wa.gov/ehp/dw/Publications/331-450a.pdf>.

## Mercer Island Takes Its Water Seriously

During 2010 we purchased 640.5 million gallons of water from Seattle Public Utilities, of which our records indicate that we sold 648.3 million gallons. These figures represent a three-year annual average of 4.1 percent of unaccounted-for water that we remain vigilant to identify. Efforts that we made during 2010 to reduce our 2009 3 percent unaccounted-for water included the replacement of inaccurate water meters and a leak-detection survey, which identified some small hidden leaks that have been repaired. We also meter all of our water main flushing usage during our annual distribution and dead-end water main flushing programs as well as the water used during our fire hydrant inspection program.

In addition, we could use your help! If you see or suspect a water leak, call us. If you notice a truck connected to a fire hydrant that clearly isn't a City vehicle, or if you see a hose connected to a hydrant and there is no meter attached, please call us.

## Lead and Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Mercer Island is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

With the previous low sample result levels of lead and copper within the Cedar Watershed's customer user area, Mercer Island was required to take only 6 water samples during the summer of 2009. Of those six samples, one home had a lead level above the Action Level of 15 µg/L (ppb). This level could be due to a long sample collection standing time, changes in water quality, or perhaps some of the plumbing fixtures had been replaced. The City of Mercer Island is responsible for providing high-quality drinking water, but we cannot control the materials used in buildings and plumbing.

## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced many people that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted in 1999 by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water.

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Furthermore, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend thousands of times more per gallon for bottled water than they typically do for tap water. If your family drinks their recommended eight glasses a day from bottled water, you could spend thousands of dollars annually. The same amount of tap water would cost a dollar or two. Another example: The cost of one gallon of bottled water would be equivalent to the cost of 650 gallons of water delivered through your tap. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the Natural Resources Defense Council's study results, check out their Web site at [www.nrdc.org/water/drinking/bw/exesum.asp](http://www.nrdc.org/water/drinking/bw/exesum.asp).

The EPA also provides a report discussing bottled water: [www.epa.gov/ogwdw000/faq/pdfs/fs\\_healthseries\\_bottledwater.pdf](http://www.epa.gov/ogwdw000/faq/pdfs/fs_healthseries_bottledwater.pdf).

## Mercer Island Breaks New Ground in Earthquake Preparedness with Emergency Well



In order to ensure water for residents in the event of a disaster such as an earthquake, the City of Mercer Island became the first jurisdiction in Washington State to receive a "source permit" for an emergency well. In 2007, the emergency well was drilled to a depth of 570 feet at Rotary Park in the center of the Island.

Water from the well will be available to residents on either a walk-up basis or by water truck, depending on emergency conditions existing at the time. The well is not designed to supply the Island's water distribution system. The relatively small flows produced by the well are not hydraulically sufficient to move through 120 miles of pipes and open 84 pressure-reducing stations, and could serve only a small portion of the Island. In addition, the State's approval for the well clearly does not allow it to be connected to the system.

## How Is My Water Treated and Purified?

Mercer Island receives its water primarily from the Cedar River Water supply via the Seattle Public Utilities transmission system.

At SPU's Cedar treatment facility, which was completed in 2003, the water is screened to remove debris (twigs, leaves), disinfected with chlorine to remove microbial contaminants, fluoridated for dental health protection, and adjusted with lime for pH-adjusted corrosion control to minimize lead leaching in older plumbing systems. In 2004, SPU added two more steps in water treatment at this facility: ozonation for odor and taste improvements and Giardia control and ultraviolet light (UV) disinfection to disable microbial contaminants such as chlorine-resistant *Cryptosporidium*.

The Tolt water supply has ozonation, filtration, chlorination, fluoridation, pH, and alkalinity adjustment.

The introduction of Fluoride into drinking water and toothpaste is viewed as one of the 10 greatest accomplishments of the Twentieth Century, according to the Centers for Disease Control and Prevention (CDC).



## What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major health concern for your family and the community where you live. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems or fire sprinkler systems), irrigation systems that are connected to lake water, or water sources of questionable quality such as water-actuated boat lifts. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to rare occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing or fertilizing. Garden hoses and irrigation systems can also be contaminated by pets. Improperly adjusted fill valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed many commercial and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected with the proper type of backflow preventer. We also require that each backflow preventer be inspected and tested annually to make sure that it is providing maximum protection.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at [http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/crossconnectioncontrol\\_manual.cfm](http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/crossconnectioncontrol_manual.cfm). You can also call the Safe Drinking Water Hotline at (800) 426-4791.

## Sampling Results

During the past year, Seattle Public Utilities (SPU) has taken hundreds of source water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. Although most of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

For water quality data on nonregulated parameters or secondary substances, such as pH, alkalinity, hardness, and conductivity, visit the SPU's web site at [http://www.seattle.gov/util/About\\_SPU/Water\\_System/Water\\_Quality/Water\\_Quality\\_Analyses?index.asp](http://www.seattle.gov/util/About_SPU/Water_System/Water_Quality/Water_Quality_Analyses?index.asp) and then select 2010 Water Quality Analyses in the left panel.

The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

### REGULATED SUBSTANCES

| SUBSTANCE<br>(UNIT OF MEASURE)                                     | YEAR<br>SAMPLED | MCL<br>[MRDL]         | MCLG<br>[MRDLG] | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | VIOLATION | TYPICAL SOURCE   |
|--|-----------------|-----------------------|-----------------|--------------------|-------------------|-----------|--|
| <b>Arsenic</b> (ppb)   | 2010            | 10                    | 0               | 0.5 (one sample)   | NA                | No        | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes                   |
| <b>Barium</b> (ppb)  | 2010            | 2                     | 2               | 1.8 (one sample)   | NA                | No        | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits                               |
| <b>Chlorine</b> (ppm)  | 2010            | [4]                   | [4]             | 1.02 (average)     | 0.44–1.64         | No        | Water additive used to control microbes  |
| <b>Chromium</b> (ppb)  | 2010            | 100                   | 100             | 0.8 (one sample)   | NA                | No        | Discharge from steel and pulp mills; Erosion of natural deposits   |
| <b>Fluoride</b> (ppm)  | 2010            | 4                     | 4               | 0.95 (average)     | 0.7–1.1           | No        | Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories |
| <b>Nitrate</b> (ppm)   | 2010            | 10                    | 10              | 0.02 (one sample)  | NA                | No        | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                              |
| <b>Total Organic Carbon</b> (ppm)                                  | 2010            | TT                    | NA              | 0.9                | 0.4–1.8           | No        | Naturally present in the environment   |
| <b>Turbidity</b> <sup>1</sup> (NTU)                                | 2010            | TT                    | NA              | 4.5                | 0.2–4.5           | No        | Soil runoff  |
| <b>Turbidity</b> (Lowest monthly percent of samples meeting limit) | 2010            | TT=95% of samples<0.3 | NA              | 95                 | NA                | No        | Soil runoff  |

### Tap water samples were collected for lead and copper analyses from sample sites throughout the community<sup>2</sup>

| SUBSTANCE<br>(UNIT OF MEASURE) | YEAR<br>SAMPLED | AL  | MCLG | AMOUNT DETECTED<br>(90TH%TILE) | SITES ABOVE AL/<br>TOTAL SITES | VIOLATION | TYPICAL SOURCE   |
|--------------------------------|-----------------|-----|------|--------------------------------|--------------------------------|-----------|--|
| <b>Copper</b> (ppm)            | 2009            | 1.3 | 1.3  | 0.1                            | 0/53                           | No        | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| <b>Lead</b> (ppb)              | 2009            | 15  | 0    | 6.3                            | 3/53                           | No        | Corrosion of household plumbing systems; Erosion of natural deposits                                   |

### OTHER SUBSTANCES

| SUBSTANCE<br>(UNIT OF MEASURE)                          | YEAR<br>SAMPLED | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | TYPICAL SOURCE                            |
|---|-----------------|--------------------|-------------------|---|
| <b>Cryptosporidium</b> (# positive samples)             | 2010            | ND                 | NA                | Naturally present in the environment      |
| <b>Haloacetic Acids [HAA]–IDSE Results</b> (ppb)        | 2008            | 26 (average)       | 17–35.3           | By-product of drinking water disinfection |
| <b>TTHMs [Total Trihalomethanes]–IDSE Results</b> (ppb) | 2008            | 24.8 (average)     | 14.1–35.7         | By-product of drinking water disinfection |

<sup>1</sup>Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

<sup>2</sup>Tap water samples were collected for lead and copper analyses from sample sites throughout the Seattle Public Utility Cedar River Purveyor service area.

## Definitions

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.