



Lead and Water Quality Questions and Answers

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Health & Safety

Is Seattle's water safe to drink?

Yes. Seattle's source water is some of the best in the nation and comes from two protected watersheds in the Cascade Mountains. There is no lead in Seattle's source water.

If there is no lead in our source water, why did you do special testing for lead?

We did tests after we learned that Tacoma found lead in samples taken from four galvanized steel service lines. We sampled 14 homes, including water from the galvanized service lines and the household plumbing, to test for lead and confirm the effectiveness of our corrosion control treatment. About five percent of our Seattle water system has galvanized steel pipes and of those, about one in four has a lead gooseneck. We have 8,000 galvanized steel pipes connecting homes to our water mains, and we estimate about 2,000 of those may have lead goosenecks.

What are the results of recent testing?

The testing on the water service lines for 14 homes, two of which had lead gooseneck, showed the levels of lead in the water to be well below the action level of 15 parts per billion (ppb), and the highest level found was 3.76 ppb. In line with SPU's standard practice, the utility will be replacing the 14 galvanized steel service lines and removing the two goosenecks.

Why did you limit initial testing to only 14 homes?

SPU is in compliance with federal lead testing requirements, but decided to do additional testing after Tacoma announced high lead results. We wanted to confirm the drinking water from galvanized service lines and goosenecks was safe, and that corrosion control was effective in helping to keep lead out of the water.

Are you going to test more homes? If so, when?

The results of the recent testing showed no lead levels above the federal action level. These results indicate that Seattle's corrosion control program is effective in reducing risks from lead in drinking water. SPU does not plan to do additional testing of lead goosenecks at this time, but will continue periodic sampling for lead required by federal regulations.

Do I need to run my water to protect myself?

- [The Environmental Protection Agency, Department of Health and SPU recommend:](#)
 - Everyone should run water for two minutes before drinking or cooking if you have not run water for six hours or more.
- [SPU's website](#) has additional information.

What are the ways I can run water?

You only have to run water for two minutes. Ideally, this should be done at the fixture farthest away from the meter. Here are some ways to flush the line:

- Shower - 2 minutes
- Hand washing dishes – 2 minutes of constant use
- Outside watering - 2 minutes
- Toilet - 3 flushes
- Clothes washer - 1 load
- Dishwasher – 1 load
- Faucet - 2 minutes

How much does it cost to run my tap for two minutes?

Less than 5 cents.

Does running my faucet waste water?

Seattle Public Utilities recommends capturing the water and using it to water plants inside and outside your home.

Do I need to be worried about my health or the health of my children?

If you are concerned, check with your doctor about health effects from lead. Useful information can be found on the [Department of Health website](#), as well as the [website of the Centers for Disease Control and Prevention](#).

Who is most at risk for lead in water?

Children under six and pregnant women are most at risk for lead exposure, particularly if they live in homes with lead solder in their plumbing. These homes were typically built or plumbed before 1980 in SPU's direct service area.

Homes with the greatest risk for exposure to lead are those with lead-based paint. Homes built before 1960 are most likely to have lead-based paint.

Where can I find more information about lead exposure?

- [Public Health-Seattle and King County](#): Phone: 206-296-4600
- [Washington Department of Health](#): 206-296-4600
- [Seattle Public Schools Drinking Water Quality](#): 206-252-0703

Testing for Lead

How can I tell if I have lead in my water?

You may have your water tested. You can find a list of accredited labs on the [Department of Ecology's website](#).

I had my water tested by a private company and it shows positive for lead. What should I do?

Customers should follow the standard guideline to run for two minutes before cooking or drinking if it has not been run in 6 hours or more. [SPU's guidelines](#) can be found on our

website. You may also want to have a plumbing inspector look at your pipes and fixtures to determine any issues in your own plumbing system.

Can you give me more detail about how you are testing for lead?

We recently concluded extensive testing of 14 Seattle homes. We tested water from the public water main in the street to the tap in the home. While the goal for all samples is zero, the water in all samples tested well below the action level of 15 parts per billion (ppb). All 14 homes had galvanized service lines, and two homes also had lead goosenecks. Sample result values for the two homes with gooseneck fittings ranged from non-detect to 3.76 ppb. Values for the other seven homes ranged from non-detect to 1.20 ppb.

How does Seattle regularly monitor for lead in water?

Seattle Public Utilities follows the Lead and Copper Rule requirements. SPU monitors for lead in water in the highest-risk homes in the service area. These homes were built or plumbed prior to 1980 with copper pipes and lead solder in their household plumbing. (Lead solder was banned in 1980 in Seattle). These homes are sampled every 3 years by testing the water after it has been sitting in the home plumbing for at least 6 hours, which is expected to represent the highest likely occurrence of lead. The Lead and Copper Rule does not address homes with galvanized service lines or lead goosenecks.

What is the Lead and Copper Rule?

The Lead and Copper Rule is the federal regulation that determines how water systems should treat drinking water to reduce lead and copper exposure from household plumbing. The Lead and Copper Rule set the action level for lead at 15 parts per billion (ppb). This means that if ten percent of water samples from high risk homes (see below) return lead levels of over 15 ppb, a water provider is required to take action.

Is Seattle in compliance with the Lead and Copper Rule?

Yes. Seattle Public Utilities is in compliance with the Lead and Copper Rule, which includes testing of homes deemed most likely to be sources of lead to customers.

How does Seattle Public Utilities report lead findings to customers?

You'll see the most recent findings summarized in the annual Drinking Water Report that is mailed to all customers each year. Look for the 2015 findings this summer.

How accurate are home testing kits for lead?

The only way to accurately know the amount of lead in your household water is to have your water tested by a certified lab. Many [certified labs](#) in Washington perform these tests for \$20 to \$40 per test.

Lead in your Service Lines and Plumbing

What homes and businesses are most at risk for lead in pipes?

Any building built before 1980 could have been built or plumbed with copper pipes joined with lead solder. Lead solder was banned in Seattle in 1980. Small amounts of lead can still be found in brass plumbing fixtures and can slowly dissolve into water after standing in pipes for a long time.

What SPU service lines are at most risk for lead?

In addition, about 5 percent (8,000) of Seattle's direct service area pipes that bring water into homes from the street are made of galvanized steel. Of those, about one in four is estimated to have a lead connecting pipe called a gooseneck. Tacoma's recent testing of this type of infrastructure revealed high lead levels in their service area. As a precaution, SPU recently tested water from our galvanized service lines and found lead was well below the regulatory action limit of 15 ppb.

How can I find out what material my SPU water service pipe is made of?

Go to www.seattle.gov/util/lead, click on the Map Tool link, and type in your address to find out what kind of material—copper, plastic or galvanized steel—the service line that supplies your home with drinking water is made of. If you need help with the tool or have other questions, call SPU at (206) 684-5800.

My water service line is galvanized steel, what should I do?

See the recommendations about flushing water for 2 minutes prior to drinking or cooking.

SPU's website has additional information:

http://www.seattle.gov/util/MyServices/Water/Water_Quality/WaterSourcesContaminants/Lead/

How do I know if my SPU water service pipe has a gooseneck fitting?

SPU estimates about 1 in 4 or 25% of its galvanized water service pipes may have a lead gooseneck fitting. At this time, SPU does not know the location of these fittings. Gooseneck fittings tend to have been installed prior to 1940.

Is SPU going to replace the galvanized steel service lines and gooseneck connections?

SPU's standard practice is to remove and replace galvanized service lines (and any associated goosenecks when they are found) when they leak or fail.

I have a galvanized steel service line. Is it beneficial for me to update my interior plumbing?

Customers may replace their pipes from the meter to the building and inside the building for a variety of reasons, including age of the pipes, materials and leaks. The corrosion control program is designed to prevent possible lead sources in plumbing materials from entering the water.

General Questions about Services Lines and the Map Tool

From the water main, what pipes belong to SPU and what pipes are my responsibility?

SPU is responsible for the service line that runs from the water main in the street to a union joint on your side of the meter box. SPU is also responsible for the meter. Customers are responsible for the pipes that run from the meter to the building and the inside plumbing and fixtures.

How accurate is the map tool? I want to be confident that my service line material is correct.

The map tool contains information from SPU's existing data systems. Please see the [Terms of Use](#) for using the map tool for accuracy information.

Why do I have a ductile iron or plastic service line?

There are several types of service lines within the SPU system, including galvanized steel, copper, ductile iron and plastic. The materials used for service lines has changed over time.

More Information

How is the Flint, Michigan situation different from Seattle's?

To start, Flint's water system has many service connections that are made entirely out of lead, which is common among water systems in the eastern U.S. Service connections are the pipes that connect homes to the water mains in the street. Flint changed water sources in 2014, moving from a Detroit regional water system that provided fully treated water from Lake Huron to a local water supply from the Flint River. The chemistry in the water from the Flint River was much more corrosive than the treated Lake Huron water from Detroit. Without appropriate corrosion control treatment, the water quickly began to dissolve metals such as iron and lead from pipes and fixtures into the drinking water. As a result, the quality of the drinking water provided to customers was significantly impacted. In some cases, lead concentrations were found to be many times higher than drinking water regulations allow.

In comparison, Seattle Public Utilities has maintained a continuous and consistent water supply from our two high-quality protected mountain watersheds. We have also had corrosion control in place since the 1980's and have continued to apply and optimize it consistently ever since. Finally, we do not have service lines made entirely out of lead.

Who regulates our water supply?

Seattle Public Utilities and all other public water systems in Washington are regulated by the Environmental Protection Agency and the Washington State Department of Health. Rules and regulations for public water systems like Seattle primarily come from the Federal Safe Drinking

Water Act, as well as any additional, more stringent standards set by the Washington State Department of Health.

Can you tell me more about Seattle Public Utilities' water quality?

Seattle Public Utilities has two primary sources of water in the Cascade Mountains in protected watersheds far from human interference. Only snow and rain form the source of this water. Before this water reaches your tap, it is treated at state of the art treatment facilities. The water is treated to optimize corrosion control, reducing the opportunities for lead to leach into the water even if your home's plumbing has fittings that may contain some lead. We monitor key parameters daily at our treatment plants, and take samples throughout the water system, to ensure our corrosion control program is continuously and consistently applied.

The staff at Seattle Public Utilities who oversees your drinking water is made up of scientists and experts in their fields with experience in drinking water treatment, regulatory and public health backgrounds, water quality, water treatment plant operations and distribution, engineering and maintenance. Many of these people are leaders in the industry and all of them are dedicated to providing Seattle with some of the best drinking water in the nation and the world.

Additional Facts

- Up until 1986, lead was allowed across the country as a constituent of the solder used to join household copper plumbing. It has also long been a part of brass fittings and household fixtures. Seattle actually banned the use of lead solder several years before that, in 1980.
- In its website summary of the federal prohibition on use of lead pipes, solder and flux, EPA reports: "In 1986, the Congress Amended the Safe Drinking Water Act, prohibiting the use of pipes, solder or flux that were not 'lead free' in public water systems or plumbing in facilities providing water for human consumption. At the time 'lead free' was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8%."

- In more recent rulemaking, Congress further reduced the amount of lead that can be used in brass. EPA reports: “In 2011 Congress passed the Reduction of Lead in Drinking Water Act (RLDWA) revising the definition of lead free by lowering the maximum lead content of the wetted surfaces of plumbing products (such as pipes, pipe fittings, plumbing fittings and fixtures) from 8% to a weighted average of 0.25%...”
- The federal Lead and Copper Rule, which was developed by the EPA and is implemented by the Washington State Department of Health, prescribes the minimum number of samples, how sample sites are selected, the process for collecting lead samples in customers’ homes, and what the levels must be below. Seattle Public Utilities currently collects a minimum of 50 samples every three years. Sample sites are selected based on what are believed to be the most likely, worst-case sample sites for lead exposure. The federal Action Level for lead in drinking water is 15 parts per billion (ppb) in no more than 10% of collected samples. For Seattle Public Utilities, the most recent round of lead sampling resulted in 90% of samples being less than 3 ppb, and no samples exceeding 15 ppb.