City of St. Helens Water Department

2012 Water Quality Report

Water Quality

The City of St. Helens Water Department is providing this summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent.

City of St. Helens Water Department is committed to providing you with the safest and most reliable water supply. Informed customers are our best allies in maintaining safe drinking water.

We are required by the Oregon State Health Division to take 15 routine water samples monthly from designated areas throughout the city, testing for microbiological contaminants in the drinking water.

We have been continuing to upgrade and improve our water quality and service by installing new water mains and having a leak detection survey done to help reduce water loss.

Water Source

The St. Helens Water Department supplies the city with water from a water treatment facility located in Columbia City. There are two wells on the banks of the Columbia River in Columbia City that supply water to the treatment plant. There is also one Ground Well located near Scappoose Bay Marina. The Scappoose Bay well only operates during emergencies.

The water treatment facility is a membrane plant that works by running water through a series of synthetic filters that capture sediment, germs and organisms. These filter systems are fully computer-controlled for automatic backwashing and cleaning. There are no chemical additions, except for standard chlorine disinfection and acidity controls. The system requires very little daily hands-on operational duties aside from the computer-controlled monitoring of water quality. That differs from the traditional sand filtration or chemical treatment plants that require constant operational tasks to operate. The investment in systems, controls and the more expensive synthetic filters will be more than offset over the life of the plant by greatly reduced staff and maintenance requirements.

During the summer months when usage is higher, the City produces over 4 million gallons of water per day. This serves over 12,000 residents through over 4,000 service connections. During the fall and winter months, this usage falls to just over 2 million gallons per day.

You can contact St. Helens City Hall at 503-397-6272 with questions or for information about the next opportunity for public participation in decisions about your drinking water.

How to Read This Table

This report is based upon the most recent tests conducted by the City of St. Helens Water Department. Testing frequency is determined by the Oregon Health Division. Terms used in the Water Quality Table and in other parts of this report are defined here.

- **Maximum Contaminant Level or MCL**: 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.
- **Maximum Contaminant Level Goal or MCLG**: 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.
- **Treatment Technique or TT**: A required process intended to reduce the level of a contaminant in drinking water.

The data presented in this report is from the most recent testing done in accordance with regulations. Test results can also be viewed on the Oregon Health Division's website at **http://170.104.63.9/** Our WS Number is 4100724.

Key to Table

MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
TT = Treatment Technique

ppm = parts per million or milligrams per liter (mg/l)
ppb = parts per billion or micrograms per liter (ug/l)
NTU = Nephelometric Turbidity Unit

Contaminant	Date Tested	Range Min. - Max.	Detected Level	Unit	MCL	MCLG	Violation	Major Sources
Nitrate	5/23/12	n/a	1.6	ppm	10.0	n/a	NO	Naturally occurring
TTHMs	Quarterly	7.1 – 13.3	13.3	ppb	80	n/a	NO	Disinfection Byproduct
HAA5	Quarterly	1.0 – 5.2	5.2	ppb	60	n/a	NO	Disinfection Byproduct
Turbidity	Daily	.01 - 0.1	0.1	NTU	TT = 0.3	n/a	NO	Soil Runoff, Sediment
Barium	10/24/12	n/a	0.013	ppm	2.0	n/a	NO	Naturally occurring
Sodium	10/24/12	n/a	14.8	ppm	n/a	n/a	NO	Naturally occurring

Water Quality Table Footnotes

All contaminants tested were below the Maximum Contaminant Level and none were in violation.

Mandatory Testing

The contaminants we monitor for are listed below. Only the ones listed in the table above had detectable levels.

Microbiological Contaminants
Total Coliform Bacteria
Fecal Coliform
Turbidity
Radioactive Contaminants
Beta/photon emitters
Alpha emitters
Combined Radium
Inorganic Contaminants
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Copper
Cyanide
Fluoride
Lead
Mercury (inorganic)
Nickel
Nitrate (as Nitrogen)
Nitrite (as Nitrogen)
Selenium
Sodium
Sulfate
Thallium
Synthetic Organic Contaminants
2,4D
2,4,5-TP (Silvex)
Alachlor
Atrazine
Benzo(a)pyrene (PAH)
Carbofuran
Chlordane
Dalapon
Di(2-ethylhexyl)adipate
Di(2-ethylhexyl)phthalate
Dibromochloropropane
Dinoseb
Diquat
Endothall
Endrin
Ethylene dibromide
Glyphosate
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Lindane
Methoxychlor
Oxamyl (Vydate)
PCBs (Polychlorinated)
Pentachlorophenol
Picloram
Simazene
Toxaphene
Volatile Organic Contaminants
Benzene
Carbon Tetrachloride
Chlorobenzene
o-Dichlorobenzene
p-Dichlorobenzene
1,2 – Dichloroethane
1,1 – Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
Dichloromethane
1,2, - Dichloropropane
Ethylbenzene
Styrene
Tetrachloroethylene
1,2,4-Trichlorobenzene
1,1,1 – Trichloroethane
1,1,2 – Trichloroethane
Thrichloroethylene
TTHMs
Toluene
Vinyl Chloride
Xylenes

Lead and Copper Testing

Substance	Units	Goal	Action Level (AL)	90th Percentile	Homes Exceeding Action Level	Complies?	Source of Contaminate
Copper	ppm	1.3	1.3	0.61	0	Yes	Corrosion of household plumbing
Lead	ppb	0	15.5	2	0	Yes	Corrosion of household plumbing

The 90th percentile is the highest result found in 90% of the samples when they are listed in order from the lowest to the highest results. EPA requires testing for lead and copper at customers' taps most likely to contain these substances based on when the house was built. The EPA determined that the sample results did not exceed the Action Level (AL). Due to the low results in the last two rounds of testing, in the future, we will be required to take 30 lead and copper samples instead of 60.

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 St. Helens 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 water for 30 seconds to two 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.

Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA 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 contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800)426-4791.

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 and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants 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 and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm 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, stormwater runoff and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800)426-4791.

Hexavalent Chromium has been back in the news lately. The State used to require us to test for Total Chromium, which includes Hexavalent Chromium, and during that period from 1987 to 2003, there were never any detectable levels found in our drinking water.

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WATER SERVICE INFORMATION – A deposit of $30.00 will be required of consumers within the City limits and a deposit of $40.00 will be required of customers outside the City limits of St. Helens before water service will be furnished. All users of City water inside or outside the City of St. Helens shall pay $8.28 per month service charge for each water service meter in addition to the rate paid for water use.

Effective August 16, 2003, a Storm Drain Utility Fee was implemented in response to increased environmental requirements for storm water discharge, which has increased the City's maintenance and construction costs. The Storm Drain Utility fee has been set at $9.14 per month per equivalent residential unit. For a single family dwelling, this is equal to $18.28 per two-month billing cycle. Commercial rates are based on the number of EDUs for each business and are determined by taking the approximate total area (square feet) of impervious surface and dividing by 2,500.

SENIOR CITIZEN SUBSIDY – The monthly water service subsidy shall be up to a maximum of 1362 cu. ft. per 2 month billing cycle for a home ***within*** the City limits that is occupied and either owned or rented by an individual over 65 years of age. An applicant for such a subsidy shall apply to the City Hall office and provide proof of age.

DELINQUENT ACCOUNTS – Upon failure to pay water charges due within the first ten days of a month, by the ***15th*** day of the month, the account shall be delinquent and a late charge of ***$5.00*** shall be added and by the ***25th*** day of the month, the account shall be assessed a ***$20.00*** delinquent fee and water service to the customer may be turned off.

RESTORATION CHARGE – A customer shall pay for restoration of water service when service has been ***discontinued*** because of non-payment. There is a fee ***$20.00*** to have service restored between 8am and 4pm and ***$100.00*** between 4pm and 8am to cover employee overtime.

OTHER WATER QUALITY INFORMATION –
Our backflow program helps prevent any potentially contaminated water from entering the City's water supply by having industrial, commercial or residential buildings install an approved backflow assembly. ***If you are considering installing a lawn sprinkler system, you are required to install an approved backflow assembly to help protect your drinking water and our water system.*** Contact our Building Department to find out more information at 503-397-6272.

If you have questions or need more information about your drinking water, contact the City of St. Helens Water Department at 503-397-3532.

City of St. Helens Water Department
P.O. Box 278
St. Helens, OR 97051

More Information

CITY HALL (Billing) – Hours 8:30 am – 5:00 pm Mon. – Fri.
Phone 503-397-6272 Website www.ci.st-helens.or.us

WATER DEPARTMENT (Maintenance) – Hours 8:00 am – 4:30 pm Mon. – Fri. Phone 503-397-3532

AFTER HOURS EMERGENCY PHONE – 503-397-1521

REMEMBER - Water meters are ***City property*** and should not be tampered with. If you have a water or sewer emergency (such as a broken pipe or leak), call the Water Department or the After Hours Emergency number. Someone is on call 24 hours a day, 7 days a week.

WATER HEATER INFORMATION – The water system from the meter to your residence is a closed system. This means there is a check valve by the meter that does not allow water to flow back into the system from the service line. Your water heater should have a T/P valve to relieve excessive water temperature or pressure. We recommend that you inspect your T/P valve annually.

To do this, place a pan under the water outlet and lift the lever to verify good flow. Be careful – the water is very hot. If water drips from the pipe after operating the valve, trip it several times to get a better seal. If it continues to drip, the valve needs to be replaced.

Also, a licensed plumber can inspect, repair or replace your T/P valve to ensure your safety. A thermal expansion tank and pressure-relief toilet ball cock assembly can provide additional protection.

WATER CONSERVATION – Here are some helpful water conservation tips for your household:

Indoors
* Install low flow shower heads and aerators on the faucets.
* Don't let the water run while brushing your teeth.
* Fix any leaky plumbing or faucets.
* Flush only when necessary. Don't use your toilet as a garbage can.
* Keep a container of drinking water in the refrigerator instead of letting the faucet run until the water is cool.

Outdoors
* If the soil is moist, don't water. Allow the lawn to dry out between waterings. This will promote deeper root growth.
* Don't water on windy days. The wind will carry the spray away.
* Don't water during the hottest part of the day. Water in the mornings and evenings when the temperature is cooler.
* Remove weeds to prevent plant competition and cut down the amount of water needed.
* Use nozzles on hoses when washing your car instead of letting the water run.

WINTERIZATION - Freezing weather brings with it the possibility of broken pipes and fittings. Here are some winterizing tips:

* Leave cupboard doors open under sinks if plumbing is on outside walls. This allows pipes to get more heat.
* When the weather dips below freezing, let inside faucets run slightly to keep water moving in pipes.
* Shut off and drain outdoor irrigation systems during the winter months.
* Put covers on outdoor hose bibs and insulate any exposed pipes.
* Plug foundation vents to prevent pipes under the house from freezing.
* If you go on vacation, leave the heat on at least 55 degrees.

OUR EMPLOYEES – The City of St. Helens is committed to bringing you quality drinking water. Our Water Distribution Operators and Water Filtration Plant Operators are State Certified and receive annual training to keep their knowledge current.

Do You Have an Emergency Water Supply?

If an earthquake, winter storm, or other disaster strikes our community, you might not have access to food, water and electricity for days or even weeks. Disaster strikes at a moments notice, many times without warning, you probably will not have the opportunity to shop or search for the supplies you and your family will need. Every household should assemble a disaster supplies kit and keep it up to date.
In an emergency, having a supply of clean water is a top priority, for drinking, food preparation and hygiene. Are you ready today for an emergency situation tomorrow?

PREPARE AND STORE AN EMERGENCY SUPPLY OF WATER

The CDC, EPA, FEMA and Red Cross recommend that the safest and most reliable emergency supply of water is commercially bottled water. Keep bottled water in its original container, and do not open it until you need to use it. Store bottled water intended for drinking and cooking in the original sealed container, in a cool place, out of direct sunlight, and observe the expiration or "use by" date, generally 6 months.

If you are preparing your own containers of water… it is recommended to purchase food-grade water storage containers from surplus or camping supplies stores to use for water storage. If you decide to re-use storage containers, choose two-liter plastic soft drink bottles – not plastic jugs or cardboard containers that have had milk or fruit juice in them. The reason is that, milk protein and fruit sugars cannot be adequately removed from these containers and provide and environment of bacterial growth when water is stored in them.

Activities that do require boiled water: **	**Activities that do not require boiled water:**
Drinking	Showering
Washing food served without cooking/baking	Tub Bathing
Adding water to food without cooking/baking	Dish washing or rinsing*
Ice Making	Laundering
Cleaning food contact surfaces	General cleaning, mopping
Gargling	Hand washing
Eye washing	Pet watering
Taking water with medications	Pet bathing
Tooth Brushing	

*Cleaned dishes and utensils should be rinsed in water that contains 1 tablespoon of household (non-scented) bleach per gallon of water (100-200 ppm chlorine) and allowed to air dry before use.

** Water used for activities that require boiling should be brought to a rolling boil for a minimum of 1 minute **before** adding pasta, vegetables, oatmeal etc.

Preparing Containers: Thoroughly clean the bottles with dishwashing soap and hot water, and rinse completely so there is no residual soap. Additionally, for plastic soft drink bottles sanitize the bottles by adding a solution of 1 teaspoon of non-scented liquid household chlorine bleach to a quart of water. Swish the sanitizing solution in the bottle so that it touches all surfaces. After sanitizing the bottle, thoroughly rinse out the sanitizing solution with clean water.

Filling Water Containers: Fill the bottle to the top with regular tap water. If the water you are using comes from a well or water source that is not treated with chorine, add two drops of **non-scented** liquid household chlorine bleach to each gallon of water. Tightly close the container using the original cap. Be careful not to contaminate the cap by touching the inside of it with your fingers. Write the date on the outside of the container so that you know when you filled it. Store in a cool, dark place. Replace your personally stored water every six months. Repeat cleaning and sanitizing the container or bottle before refilling.

Treating water: There are many ways to treat water, though none are perfect. **Boiling** is the safest method of treating water. In a large pot or kettle, bring water to a rolling boil for 1 full minute, 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.

Chlorination: You can use household liquid bleach to kill microorganisms. Use **ONLY unscented**, regular household liquid bleach that contains 5.25 to 6.0% sodium hypochlorite. Because the strength of bleach decreases with time, use bleach from a newly opened or unopened bottle. **DOSE:** Add 16 drops (1/8 teaspoon) of bleach per gallon of water, stir and let stand for 30 minutes. The water should have a slight bleach odor. If it doesn't, then repeat the dosage and let stand another 15 minutes. If it still does not smell of bleach, discard the water and find another source of water.

Other preparedness materials are available at www.fema.gov, www.redcross.org, as well as www.ready.gov. We have also included on the City of St. Helens web site (www.ci.st-helens.or.us) on the Water Filtration Plant link, more emergency preparedness information, such as preparing emergency kits, to assist you and your family prepare for unexpected disasters.