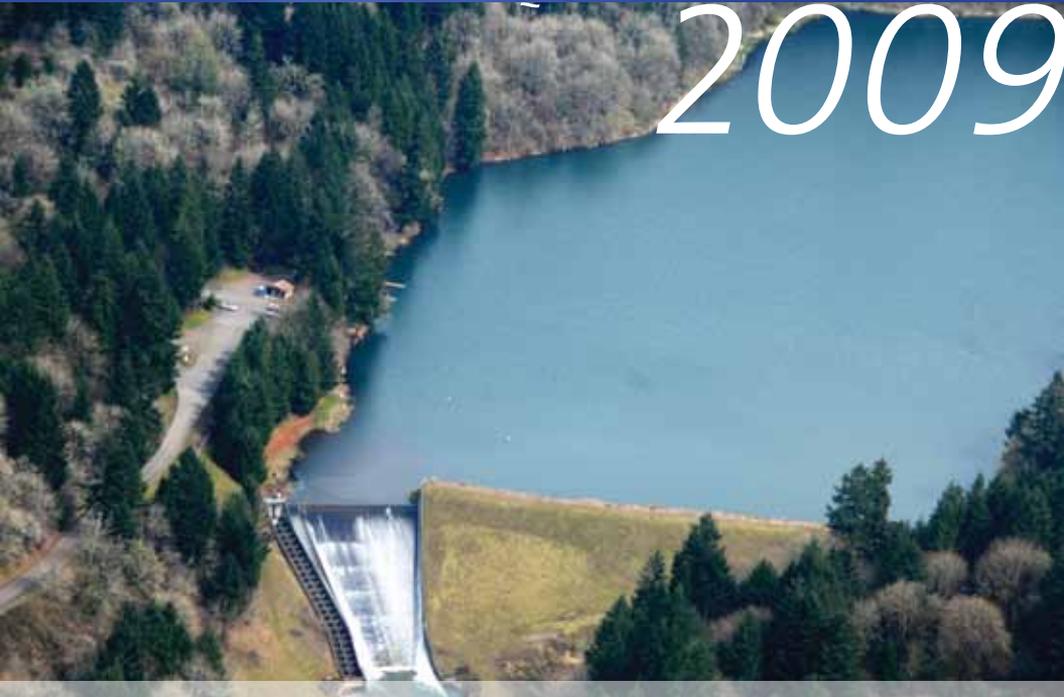


# WATER QUALITY REPORT 2009



CITY OF SILVERTON  
306 S. WATER STREET  
SILVERTON, OR 97381  
PHONE: 503-873-5321



## Consumer Confidence Report

The City of Silverton takes very seriously the responsibility of providing its citizens with drinking water that meets all of the standards set forth by the U.S. Environmental Protection Agency (EPA) and the Oregon Department of Human Services. This report is a snapshot of last year's drinking water quality. Each year you will receive a report similar to this one showing how we've done meeting these standards.

### Your Water Is Safe To Drink

In 2009, the drinking water delivered to the citizens of Silverton met or exceeded all U.S. Environmental Protection Agency (EPA) and State drinking water health standards. As certified by independent testing laboratories, the water from our Water Treatment Plant received no drinking water quality violations.

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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than 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 and other microbial



contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 Silverton 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 drinking 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 <http://www.epa.gov/safewater/lead>.

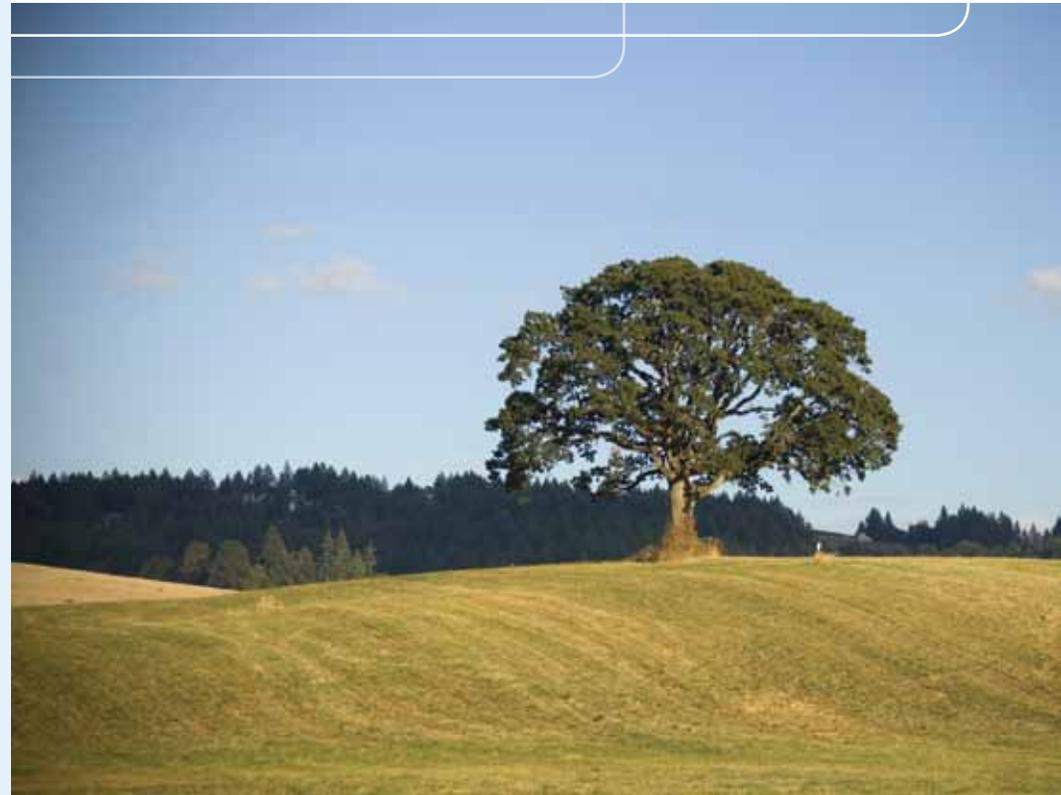
## New Water System Master Plan is Underway

All public water systems in Oregon are required to have a Water System Master Plan, approved by the Drinking Water Program of the Oregon State Health Division. In Silverton, this \$79,500 project started in January, 2010. It will take approximately one year to complete as it provides a detailed study of Silverton demographics and land use, water treatment and supply status, water distribution system analysis, and recommended water system improvement alternatives. The improvements will be outlined in a phased Capital Improvement Plan which includes a financial plan. As the project progresses, a series of Technical Advisory Committee meetings will be held to discuss the development of the Master Plan. Committee members include city staff, consulting engineers, and Silverton residents representing local business, industry, and residents. The public is welcome to sit in on the Committee meetings, and encouraged to check the City's web site ([www.silverton.or.us](http://www.silverton.or.us)) for the time and place.

### Water Quality Concerns

Due to water system maintenance projects, repairs or new water line construction, it is not uncommon to observe temporary changes to the clarity, taste or odor of water received at your tap. If you have any questions or concerns about your drinking water, please feel free to contact us by visiting the City's website and clicking on the tab for "Maintenance Concerns", or by calling us directly at the Water Treatment Plant (503-873-5437).

If you have any questions about any of the information contained in this report, please contact Steve Starner, Water Quality Supervisor at (503-873-5439).



# WATER QUALITY TEST RESULTS 2009

PWSID #4100823

Substance	Unit Description	Goal (MCLG)*	Highest Level Allowed (MCL)*	Range Detected or Overall Results	Sample Date	Source of Substance	Violation?
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## INORGANIC CHEMICALS

Barium	ppm*	2	2	0.004	7/19/2002	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	No
Sodium	ppm*	N/A	N/A	7.0	7/19/2002	Naturally present in the environment	No
Nitrate	ppm*	10	10	0.29	1/7/2010	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion from natural deposits	No
Fluoride	ppm*	4	4	0.6-1.3	Daily	Erosion of natural deposits; Water additive which promotes strong teeth	No

## MICROBIOLOGICAL

Turbidity	NTU*	N/A	0.30	0.03-0.28	every 15 minutes	Erosion and soil runoffs	No
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## COPPER AND LEAD TESTING

Substance	Unit Description	Goal (MCLG)*	Action Level (AL)*	90th Percentile	Homes Exceeding AL	Sample Date	Source of Substance	Violation?
Copper	ppm*	1.3	1.3 AL*	<0.1	0	8/7/2008	Corrosion of household plumbing systems	No
Lead	ppb*	0	1.5 AL*	<0.002	0	8/7/2008	Corrosion of household plumbing systems	No

\*UNIT DESCRIPTIONS: **ppm** (Parts per million), **ppb** (Parts per Billion), **mg/L** (milligrams per liter)

- AL** Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- MCL** Maximum Contaminant Level – The highest level of 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 - 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.
- N/A** Not Applicable
- NR** Not Regulated by the EPA
- ND** Not Detected
- NTU** Nephelometric Turbidity Units
- TT** Treatment Technique - A required process intended to reduce a contaminant level in drinking water

## How the Water gets to You

Last year, we treated 519 million gallons of water. Ninety-eight percent of the water came from Abiqua Creek, diverted from a point about seven miles upstream of the City. The geographic area (the drinking water protection area) extends upstream approximately 19 miles in a southeasterly direction and encompasses a total area of 49.7 square miles. Included in this area are a number of tributaries to the Abiqua main stem, including Echo, Hammond, Little Abiqua, Cedar and Homestead Creeks. Once diverted from Abiqua Creek, the water flows by gravity through a pipeline to the City's Water Treatment Plant located on the corner of Ames Street and East Main Street (at the top of "Danger Hill").



Two percent of the water treated last year came from Silver Creek, our backup water supply source. The "backup" status has more to do with energy consumption rather than water quality. Silver Creek water must be pumped from an intake structure located next to the Municipal Swimming Pool in order to be delivered to the Water Plant. To ensure an adequate supply of water is available even during drought conditions, 423 million gallons of water is stored in the Silverton Reservoir, which is slowly released during the summer months to supplement stream flows and protect fish habitat.

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, in some cases, 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 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 byproducts 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

LAST YEAR, WE TREATED

**519 million**  
gallons OF WATER.



## Conventional and Direct Water Filtration

The Silverton Water Treatment Plant must measure the turbidity of the water coming directly out of each filter bed before it goes to the reservoir and distribution system. This measurement is used as an indicator of the presence of disease-causing organisms. Turbidity measures the effectiveness of the filtration units and guides operator decisions about the frequency of backwashing the filters.

From a regulatory standpoint, turbidity measurements are required at two locations: the combined filter effluent, at a point where water from all filter beds combines but upstream of entry to any reservoir; and at each individual filter bed. The monitoring frequency for the combined filter effluent is at least every four hours, while the frequency for each individual filter is continuously every 15 minutes. Operator intervention and automatic controls are in place to assure that the filter beds are always functioning at an optimal level so that disease-causing organisms do not pass through and cause illness among customers.