



CITY OF BONNEY LAKE  
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DATABAR



# 2009 Water Quality Report

*"The City of Bonney Lake's mission is to protect the community's livable identity and scenic beauty through responsible growth planning and by providing accountable, accessible and efficient local government services."*

## 2010 WATER CONSUMPTION CHARGES TO CUSTOMERS

Water consumption is recorded by water meters in cubic feet [7.48 gallons = 1 cubic foot]. Water meters are read in hundreds of cubic feet (ccf) [100 ccf = 748 gallons].

### Rates for Customers Inside City Limits:

#### Winter

0-10 CCF per month \$1.11 = \$0.15 per 100 gallons  
Over 10 CCF per month \$2.20 = \$0.29 per 100 gallons

Winter rates will be reflected on bills covering October 1st through May 31st.

#### Summer

0-10 CCF per month \$1.11 = \$0.15 per 100 gallons  
Over 10 CCF per month \$3.76 = \$0.50 per 100 gallons

Summer rates will be reflected on bills covering June 1st through September 30th.

### Rates for Customers Outside City Limits:

#### Winter

0-10 CCF per month \$1.61 = \$0.22 per 100 gallons  
Over 10 CCF per month \$3.19 = \$0.43 per 100 gallons

Winter rates will be reflected on bills covering November 1st through June 30th.

#### Summer

0-10 CCF per month \$1.61 = \$0.22 per 100 gallons  
Over 10 CCF per month \$5.46 = \$0.73 per 100 gallons

Summer rates will be reflected on bills covering July 1st through October 31st.

## HOW TO SAVE MONEY ON WATER AND SEWER BILLS

Both Water and Sewer charges are based on how much water you use. To save money on both, the following water conservation suggestions are offered for residential customers. It is important to minimize both daily water consumption quantity and to minimize water use during peak hour periods. You can find additional conservation tips at: [www.waterwise.com](http://www.waterwise.com).

### INSIDE THE HOME

- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Shorten your shower by a minute or two and you'll save up to 150 gallons per month.
- Install an instant water heater near your kitchen sink so you don't have to run the water while it heats up. This also reduces energy costs.
- Turn dish washers on when going to bed instead of during peak water use times, when dinners are being prepared.
- Put food coloring in your toilet tank. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it can save up to 1,000 gallons a month.
- Know where your master water shut-off valve is located, just in case you have a water leak issue. Try it once a year to make sure it works. This could save water and prevent damage to your home.

### OUTSIDE THE HOME

- Use a hose nozzle or turn off the water while you wash your car. You'll save up to 100 gallons every time.
- Limit grass watering to no more than three times a week with 30-minutes per sprinkler zone.
- Spreading a layer of organic mulch around plants retains moisture and saves water, time and money.
- Use drip irrigation for shrubs and trees to apply water directly to the roots where it's needed.
- The City's customer peak demand for water is just before and after sunrise. We encourage customers to do the following: avoid watering grass and gardens during the day when the most evaporation occurs; automated sprinkler systems should be set to use water in the late evening or very early in the morning hours.

## THE CITY OF BONNEY LAKE'S 2009 WATER QUALITY REPORT

The City of Bonney Lake is committed to providing residents with a safe, reliable supply of high-quality drinking water. The quality of our water meets, and in most cases exceeds, state and federal standards for both appearance and safety. This "Consumer Confidence Report" is required to be sent to all our customers each year by the Safe Drinking Water Act (SDWA). The City of Bonney Lake is proud to share our results with you. Please contact the Public Works Department at: (253) 447-4320 with any questions you may have.

Water Quality is of the utmost importance to your Mayor, City Council and Public Works staff, many of whom live in our water service area and drink the same water you do. Since they are also purchasers of the water, you can be assured they will do their best to keep the costs as low as possible without sacrificing quality.

## A MESSAGE FROM MAYOR JOHNSON

The City of Bonney Lake maintains quality drinking water which is fundamental to our way of life. As we have pointed out many times in the past, our water is some of the best drinking water in the state and your city staff is committed to continuing to provide you with the most efficient delivery of quality drinking water. As you read this report, it clearly shows that your drinking water meets and exceeds the required standards set by the U.S. Environmental Protection Agency. The goal of this report is to help you understand what is in your water – and what isn't. Included are details describing where your water comes from, what it contains, and how it compares to stringent federal water quality standards. It also outlines the process used to protect your water from its source to you. We are committed to keeping you informed about water issues, including our recent agreement with Cascade Water Alliance. This agreement will allow us to procure additional supply over the next 30 years.

Although this report is of a technical nature, it contains important information. Please stay tuned throughout the spring and summer for updates regarding availability of this limited resource. Other sources of information include the city newsletter placed in the Courier Herald each month; and, keep an eye on your utility bill where we frequently put information on your statement, to keep you informed.

Should you have any questions or comments, we encourage you to call, write or e-mail our staff. Please contact City staff with any questions as follows: phone: (253) 447-4320. Address: PO Box 7380, Bonney Lake, WA 98391-0944; e-mail: [webert@ci.bonney-lake.wa.us](mailto:webert@ci.bonney-lake.wa.us). The city will also have a booth at Bonney Lake Days August 21.

Thank you,

Neil Johnson, Mayor  
City of Bonney Lake

## THE CHURCH LAKE DRIVE WATERMAIN REPLACEMENT PROJECT

The old 4 inch tar wrapped steel main, installed in the 1960's, has been replaced with new 8 inch ductile iron main.



The new 8 inch ductile iron main with valve cluster is better to isolate water, in case of an emergency.

## PUBLIC IMPROVEMENT

The City of Bonney Lake maintains nearly 200 miles of water mains and 1400 fire hydrants in the Bonney Lake water service area. The Public Works Operations Division provided safe, quality water to approximately 13,000 households, 184 commercial accounts and approximately 32,500 water consumers with a high degree of reliability. Approximately 1.4 billion gallons of water were produced by the City of Bonney Lake's wells and springs (this is equivalent to 41,551 gallons per person per year or 114 gallons per person per day). The month of July was the highest use month for the City with a production of 221 million gallons and the lowest production month being January with production of 68 million gallons.

## BONNEY LAKE'S WATER SOURCE

The City of Bonney Lake's drinking water is supplied by groundwater pumped from springs at Victor Falls and Grainger Springs, and well water from our Tacoma Point and Ball Park sites. The City currently has the ability to supply its customers with almost 11 million gallons of water per day.

A Source Water Assessment has been performed for our area to provide baseline data about the quality of water before it is treated and distributed to customers. This is important because it identifies the origins of contaminants within our area and indicates the susceptibility of our water system to such contaminants.

Continued . . .

# 2009 RESULTS

CITY OF BONNEY LAKE INORGANICS	MCL	UNITS	BALL PARK WELL	TACOMA POINT WELL	GRAINGER SPRING	VICTOR FALLS SPRING	WATER PURCHASED FROM TACOMA PUBLIC UTILITIES
Arsenic	0.01	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	
Barium	2	mg/l	< 0.1	< 0.1	< 0.1	< 0.1	
Cadmium	0.005	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	
Chromium	0.1	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	
Mercury	0.002	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	
Selenium	0.05	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	
Beryllium	0.004	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	
Nickel	0.1	mg/l	< 0.04	< 0.04	< 0.04	< 0.04	
Antimony	0.006	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	
Thallium	0.002	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	
Cyanide	0.2	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	
Fluoride	4	mg/l	< 0.2	< 0.2	< 0.2	< 0.2	1.07
Nitrite - N	1	mg/l	< 0.2	< 0.2	< 0.2	< 0.2	
Nitrate - N	10	mg/l	0.3	0.5	2.9	3.9	
Total Nitrate/Nitrite	10	mg/l	< 0.5	0.5	2.9	3.9	
Iron	0.3	mg/l	0.03	< 0.1	< 0.1	< 0.1	0.13
Manganese	0.05	mg/l	0.225	< 0.01	< 0.01	< 0.01	0.0789
Silver	0.1	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	
Chloride	250	mg/l	10	3	8	9	
Sulfate	250	mg/l	7	6	10	7	15.5
Zinc	5	mg/l	< 0.2	< 0.2	< 0.2	< 0.2	0.129
Sodium		mg/l	11	5	20	8	10.5
Hardness		mg/l	110	52	104	114	
Conductivity	700	umhos/cm	190	95	208	186	
Turbidity		NTU	< 0.1	< .1	0.2	< 0.1	
Color	15	color units	< 5	< 5	< 5	< 5	
Lead		mg/l	< 0.001	< 0.001	< 0.001	< 0.001	
Copper		mg/l	< 0.02	< 0.02	< 0.02	< 0.02	

### KEY TO TABLE:

MCL = Maximum (allowable) Contaminant Level set by the federal government

Mg/l = milligrams per liter or parts per million

umhos/cm = micromhos per centimeter

NTU = Nephelometric Turbidity Unit (Water Clarity)

< = Less than minimal Lab Test

# 2009 WATER QUALITY REPORT

Bonney Lake's Water Source Continued . . .

To ensure that the tap water is safe to drink, the U.S. Environmental Protection Agency, through the Safe Drinking Water Act (SDWA), prescribes limits with the substantial safety factors on the amount of certain contaminants in water provided by public water systems.

To ensure safe, high quality water, the Public Works Operations Division (PW-OPS) continually monitors and samples the water quality. During the 2009 calendar year, PW-OPS took 480 routine bacteria samples, 34 bacteria samples to test new connections, and 6 engineering samples. Operators also took 34 sets of Disinfectant By-Products samples, and 4 samples for full organic chemical analysis. An independent certified laboratory tests these samples to ensure the safety of your drinking water.

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 the 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 (800-426-4791) or visit their on line website at [www.epa.gov/safewater/sdwa/index.html](http://www.epa.gov/safewater/sdwa/index.html).

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals 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 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 (synthetic organic chemicals)**, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses. Of the 93 synthetic organic chemicals tested, no contaminants were detected.
- **Organic chemicals**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum products, and can also come from gas stations, urban stormwater runoff and septic systems. We test for volatile organic chemicals every three years.
- **Radioactive contaminants**, while unlikely, can be naturally occurring or be the result of oil and gas productions 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 system. No radioactive materials were detected in Bonney Lake's water.

## SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons include, but are not limited to, persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. The 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 (800-426-4791).

The primary sources of disease causing organisms will be from pets, food, general household cleanliness and personal hygiene. The risks of infection by Cryptosporidium or Giardia in your water supply are remote, as these organisms are not typically found in ground water sources such as those that supply the City of Bonney Lake system.

## LEAD IN 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 Bonney Lake 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)."

## CHLORINE DISINFECTION

Chlorine is added to Bonney Lake's water as a disinfectant to protect consumers from possible disease causing microorganisms.

**Chlorine Residuals.** The state mandates a minimum chlorine residual level of 0.2 parts per million (ppm) throughout the water distribution system. This residual for Bonney Lake water sources typically ranges from 0.2 up to 0.6 ppm. The 2009 monitoring results ranged from 0.16 mg/l up to 1.32 mg/l.

**Chlorine Disinfection By-Products.** When chlorine combines with organic material, it will form chlorine by-products known as Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) that are regulated by the Washington State Department of Health (DOH). The maximum level permitted for TTHM is 80 parts per billion (ppb) and for HAA5 the maximum level is 60 ppb. The results of testing conducted in 2009 ranged from non-detected to 36.8 ppb for TTHM and non-detected to 15 ppb for HAA5.

On occasion, there may be a chlorine odor or temporary milkiness to the water (the milkiness appearance is air in the lines). This is not a health hazard. However, if noticed on a regular basis you can contact the Public Works Operations office at (253) 447-3101 for more information.

## CROSS CONNECTION CONTROL

The City of Bonney Lake has implemented a cross connection control program to prevent backflow of contaminated water from a customer's water system into the public water system. A cross connection control device is required if you use water for purposes other than drinking such as for: a booster system, boilers, yard sprinkler systems, fire sprinkler systems and soft drink dispensing machines. The City requires customers with their water line connected to these other uses to submit, on an annual basis, a report that their device has been tested by a state certified professional.

## CITY OF BONNEY LAKE WATER AVAILABILITY

Victor Falls	1,100 gpm
Grainger Springs	1,500 gpm
Ball Park #1	1,000 gpm
Ball Park #2	270 gpm
Tacoma Point #2, 4, 6	2,300 gpm
<b>Total Owned By City:</b>	<b>6,170 gpm or 8,884,880 gpd</b>
<b>Tacoma Water Agreement:</b>	<b>2,000,000 gpd</b>

gpm – gallons per minute, gpd – gallons per day