

# City of Stanwood Water Quality Report For the Year 2010

Once again, the City of Stanwood is pleased to present the annual Water Quality Report for the 2010 calendar year. We are committed to delivering quality drinking water. You can be confident that the water provided at your tap meets or exceeds national and state regulations.

This report will inform you on the source of your water, what compounds are currently in your water, and how well your water complies with current regulations enforced by the Environmental Protection Agency (EPA) and Washington State Department of Health (DOH).

## Your Water Sources

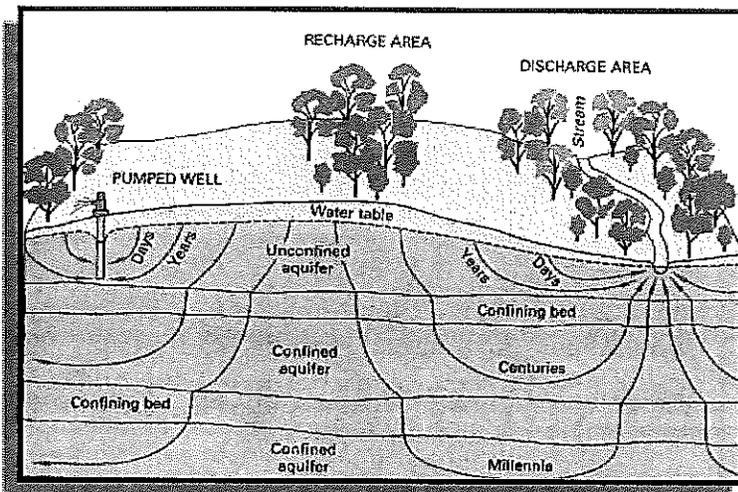
The City of Stanwood currently has six groundwater sources that withdraw water from aquifers. Aquifers are natural reservoirs of water found underground within layers of gravel, rock and sand. This water becomes replenished as rainwater seeps through layers of earth, which act as a natural filter. Fure Well (Source 4), Hatt Slough Springs (Source 1), Cedarhome Well (Source 7) and both Bryant Wells (Sources 2 and 3) are supplied by aquifers.

The DOH Office of Drinking Water rates all water sources based on their contaminant susceptibility as part of the Source Water Assessment Program (SWAP). Most of the city's sources are designated as high susceptibility due to the type of aquifer, depth of well and nearby contaminant sources. SWAP data for the City of Stanwood is online at:

<http://www.doh.wa.gov/ehp/dw/sw/assessment.htm>

The Bryant Wells are the city's primary source of water and provide the majority of the city's water supply. The Bryant Wells are located near Stanwood High School off 268<sup>th</sup> Street NW (Stanwood-Bryant Road). Water pumped from the Bryant Wells is filtered for purity and chlorinated for disinfection before it is sent out to the distribution system and finally arrives at your tap. Water pumped from all other sources is chlorinated for disinfection before it is sent to the distribution system.

Our distribution system is a network of underground pipes that carries water from our sources to your tap. Our water system operators continue to track the quantity and quality of water from source to sink every day.



## Important Health Information

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in water include:

- ♦ *Microbial contaminants*, such as viruses and bacteria, from wildlife;
- ♦ *Inorganic contaminants*, such as salts and metals, which are naturally occurring;
- ♦ *Organic contaminants*, which are byproducts of disinfection processes; and
- ♦ *Radioactive contaminants*, which can be naturally occurring.

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 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).

# Help Conserve Water: *Water Use Efficiency Performance Report*

We would like to thank you for doing your part in helping our community conserve water. Through our commitment to water conservation, we have reduced our residential water use by more than 15 percent over the past 5 years. In just the last year, we saved more than 30 million gallons of water, helping promote environmental sustainability within the city.

The City of Stanwood's goal is to reduce single-family household water use to 201 gallons per day (gpd) by 2019 based on a 4-year rolling average. A 4-year rolling average is used to assess our conservation performance because weather can have a large impact on water use year to year. Our 4-year rolling average water use for 2007—2010 was 206 gpd per household and our 2010 average water use was 209 gpd per household.

City of Stanwood Comparison of 2005 and 2010 Water Use Data			
	Year		Percent Change
	2005	2010	
Total Water Production	355 MG	320 MG	-10%
Total Authorized Consumption	292 MG	249 MG	-15%
Distribution System Leakage	17.7%	22.2%	5%
Average Single Family Use per Household	250 gpd	209 gpd	-16%

MG = million gallons    gpd = gallons per day

Our Public Works Department is also working hard to reduce the amount of water loss or distribution system leakage. Although the amount of distribution system leakage increased in 2010, the city has recently located several water main leaks and an overflowing reservoir. We are fixing known leaks in the system, replacing old water main and eliminating the reservoir overflow. System leak detection is planned in the near future to find additional leaks. We are also expanding the metering of un-billable uses, like our flushing program, to meet our goal of achieving less than 10 percent distribution system leakage based on a 3-year rolling average. The current 3-year rolling average for distribution system leakage is 13 percent.

Here are some ways you can help us reach our water use goals by saving even more water around your house.

- ◆ Fix leaks in toilets, faucets and sprinklers.
- ◆ Replace showerheads with low-flow models.
- ◆ Wash only full loads of clothes and dishes.
- ◆ Install aerators on bath and kitchen faucets.
- ◆ Replace dishwashers and washing machines with Energy Star® models.
- ◆ Select drought-tolerant or native plants for your next landscaping project.
- ◆ Water your lawn once or twice a week for a longer duration (45 – 60 minutes, or 1 inch of water) to encourage deep roots.

## Did you know?



### Estimated Faucet Leakage Rates (number of drips)

- 60 drops per minute = 192 gallons per month
- 90 drops per minute = 310 gallons per month
- 120 drops per minute = 429 gallons per month

## Discolored Water at Your Tap?

Water is distributed from our sources to your tap through a network of buried pipes. Mineral deposits naturally build up and form a lining on pipe walls. In recent years, we have introduced chlorine to our water system. The discolored water you may see is the chlorine reacting with layers of mineral deposits that have built up within our water distribution system.

We have implemented a city-wide flushing program to routinely purge the deposits in our pipelines and minimize the discoloration at your tap. If you experience discolored water, please contact us at (360) 629-9781, and our water system operators will flush the pipelines in your area. The water should be safe to drink at this time. We routinely monitor the quality of all of our water sources and the distribution system to ensure that they meet the latest safe drinking water regulations.



# 2010 Water Quality Monitoring Results

To ensure that tap water is safe to drink, the DOH and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington State Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

We chlorinate each of our water sources and monitor the chlorine concentration as it enters the distribution system. The table on the right summarizes chlorine concentrations. Chlorine is necessary to properly disinfect our water supply from bacteria and microbes.

The City of Stanwood routinely monitors the quality of all of our water sources and the distribution system to ensure that they meet the latest regulations. The table below summarizes the makeup of your water in the past year. In addition to the contaminants listed below, we also monitored our sources for synthetic organic compounds, volatile organic compounds, lead, copper, nickel, radon, sulfate, radionuclides and others. These contaminants measured below their MCL or action levels.

Chlorine Monitoring Point	Average	Range	Units
Hatt Slough	0.42	0.1 - 0.74	ppm
Cedarhome Well	0.30	0.04 - 0.9	ppm
Water Treatment Plant	0.50	0.17 - 0.94	ppm

This is What is in Your Tap Water				This Much is Allowed		Where Did this Compound Come From?
Detected Contaminants	Treatment Plant Result	Hatt Slough Result	Units	EPA's MCL Standard	Do We Comply?	Typical Sources
<b>Arsenic</b>	Average: 8.8 Range: 7-11	4.0	ppb	10	<b>Yes</b>	Erosion from natural deposits
<b>Nitrate</b>	Not detected	2.03	ppm	10	<b>Yes</b>	Fertilizer runoff, animal waste, natural erosion
<b>Sodium*</b>	18.6	7-11	ppm	20	<b>Yes</b>	Erosion from natural deposits
<b>Total Trihalomethanes</b>	Average: 6.1 Range: 2-19.6		ppb	80	<b>Yes</b>	A byproduct of chlorination
<b>Five Haloacetic Acids</b>	Average: 1.6 Range: Not Detected-4.6		ppm	60	<b>Yes</b>	A byproduct of chlorination
<b>Total Coliform</b>	Not detected in 116 annual samples		Positive Samples	0	<b>Yes</b>	Microbes naturally present in the environment
<b>Fecal Coliform and E. Coli</b>	Not detected in 116 annual samples		Positive Samples	0	<b>Yes</b>	Bacterial contamination from human or animal waste

\* Note: Sodium is unregulated but the EPA recommends a 20 mg/L guidance level.

### DEFINITIONS

**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.

**Maximum Residual Disinfectant Level (MRDL):** 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.

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

**ppb = parts per billion = micrograms per liter (µg/L).** This can be compared to one cent in \$10 million.

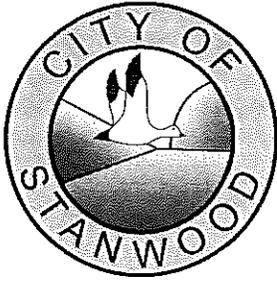
**ppm = parts per million = milligrams per liter (mg/L).** This can be compared to one cent in \$10,000.

**NTU = Nephelometric Turbidity Units:** Turbidity is a measure of the cloudiness of the water.

## Arsenic and Lead Information

Arsenic is naturally present in our water source and is removed at the Bryant Well Field Treatment Facility. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from 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 Stanwood 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 <http://www.epa.gov/safewater/lead>.



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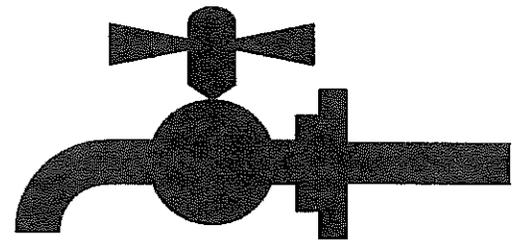
Kevin Hushagen

## Get Involved!

For questions regarding your water utility, dial (360) 629-9781.

City Council meetings are held on the 2<sup>nd</sup> and 4<sup>th</sup> Thursdays (starting at 7 pm) of each month at the School District Office located at 26920 Pioneer Highway. Please join us.

The City of Stanwood Public Works Building  
and Wastewater Treatment Plant



**For More Information  
Please Contact**

U.S. Environmental  
Protection Agency Safe  
Drinking Water Hotline  
1-800-426-4719  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

Or

Washington State  
Department of Health  
(253) 395-6750  
[www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw)