

# Spanaway Water Company

## 2016 CONSUMER CONFIDENCE REPORT



*Este informe contiene información muy importante sobre la calidad de su agua potable. Por favor lea este informe o comuníquese con alguien que pueda traducir la información.*

## About Your Water Company



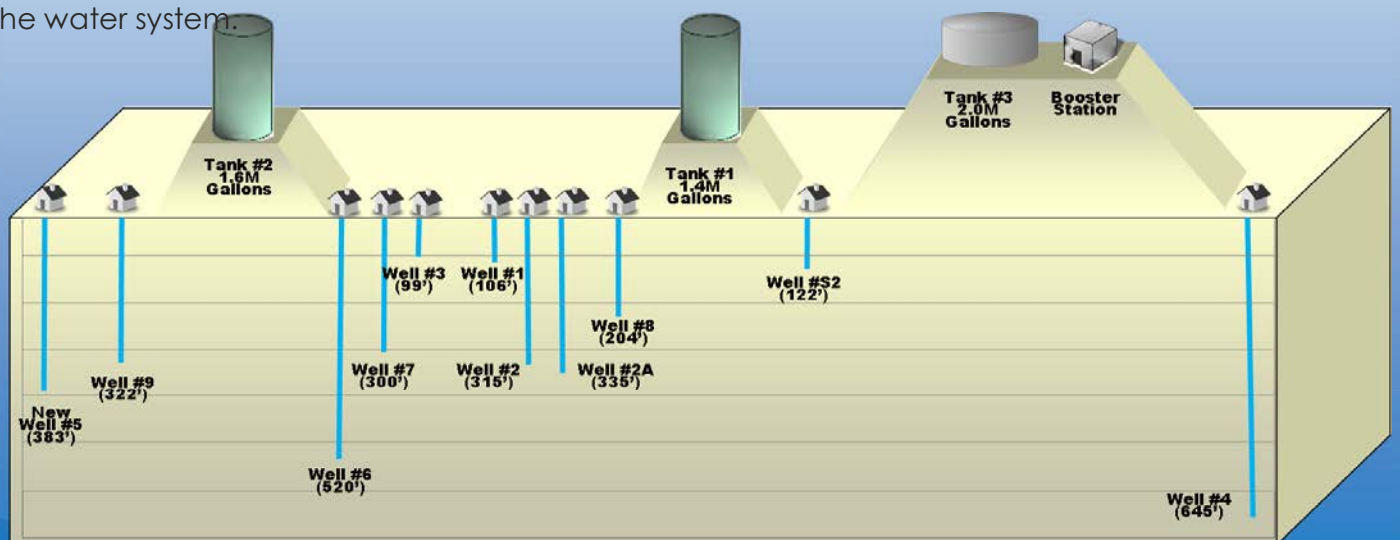
Spanaway Water Company (SWC) is a non-profit mutual water company owned by the property owners (members) served by the company. SWC serves over 10,540 families and more than 450 businesses in the Spanaway area. The company's Board of Directors are elected from and by the company membership. Therefore, you can be certain that both high water quality and reasonable prices are their top priorities.

We strive to provide you with safe, high quality water that meets or exceeds all federal and state standards. Water quality is tested daily by water company employees. We also have a regular testing schedule that includes weekly, annual, quarterly and tri-annual analysis by Washington State and EPA certified laboratories.

## SPANAWAY WATER COMPANY AN OVERVIEW OF OUR WATER SUPPLY.

Spanaway Water Company draws water from 11 wells located in the Spanaway area of the Chambers/Clover Creek watershed.

The well depths vary from 99 to 645 feet. The water system has three tanks holding over 5,000,000 gallons, one booster station serving the higher elevations at the south end of the water system, well over 130 miles of water mains, and 900 fire hydrants. The diagram below provides an overview of the water system.



## A Message from our Manager

It is hard to believe that this is our nineteenth Water Quality Report / Consumer Confidence Report. Water quality is our highest priority and the past years have seen major changes in both water quality regulations and how water quality is addressed by your water company.

Chlorination of the water system began in 1993 to ensure compliance with stricter EPA drinking water bacteriological regulations. Corrosion control for lead and copper began in 1999 with the addition of sodium hydroxide treatment at four wells. While lead levels have never been an issue, the treatment provides protection from copper corrosion by raising the naturally low pH of the water. 2000 saw the first of two manganese filters being install at the newly developed Well 4 followed in 2010 with filtration at new Well 6.

Most recently, the redrilled and enlarged Well 5 began operation last June. This well utilizes a completely different approach for corrosion control, an approach unavailable in 1999. At this new 1,500 gallon per minute well, rather than adding sodium hydroxide to the water to raise the pH, we aerate the water to remove the naturally occurring dissolved carbon dioxide (CO<sub>2</sub>). Though the process requires pumping the water twice, once out of the ground and then booster pumping it into the water system after aeration, the process does not involve the addition of any chemicals to the water. Our Lowry Deep Bubble System is the first



Well 5 Main Pump Room

in the northwest. This system basically blows air up through the water in two special baffled tanks, pulling the CO<sub>2</sub> out of the water to raise the pH greatly reducing the water's naturally soft and somewhat corrosive nature.



Well 5 Lowry Tanks and Booster Pump

To gain the Washington State's Department of Health approval for this treatment we completed extensive small-scale pilot testing of the Lowry system. While we had the pilot test equipment, we also tested the system's effectiveness at the wells currently adding sodium hydroxide. This testing proved that the Lowry System is also very effective at these wells.

Because we strongly believe that the fewer chemicals we are required to add to the water the better, we are analyzing the long-term cost differences between the existing sodium hydroxide systems and Lowry System. Early indications are that switching to Lowry Systems at the other well sites will be more

cost effective in the long-term. If confirmed, a portion of the "Capital Projects Fee" on water bills will be used to replace the existing sodium hydroxide systems with Lowry systems and remove those treatment chemicals from the water you receive. Water quality truly is a priority for your water company.

**Jeff Johnson**

**Manager**

**Spanaway Water Company**



## Why provide a Water Quality Report?

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 similar protection for public health.

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.



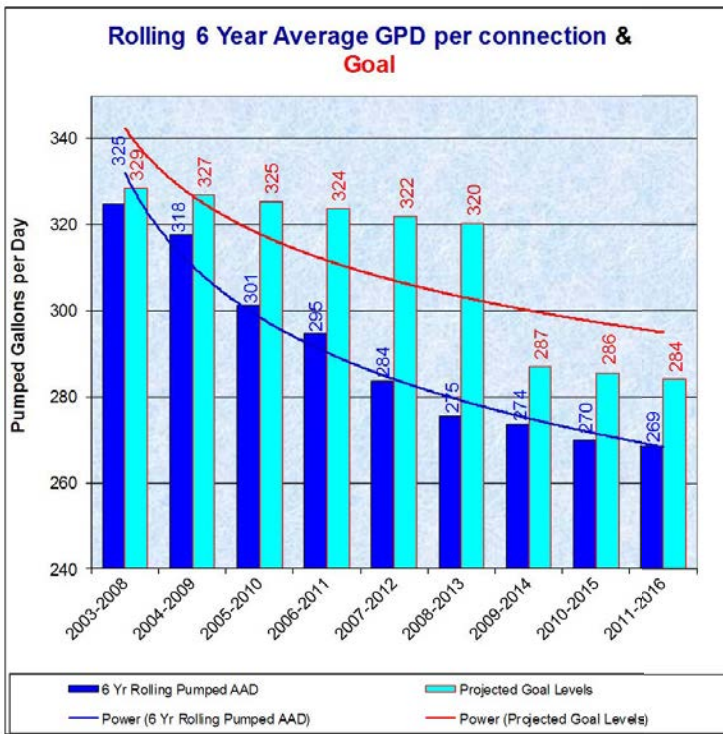
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## Sometimes my water is discolored, is it safe to drink?

Your water is safe to drink or cook with. Manganese build up in pipes can be released when valves are being repaired, the system is being flushed or fire hydrants are in use. Should you experience "brown" water, letting an outside faucet run for a few minutes should clear the problem.

Routine main flushing is done on Tuesdays, October through May. To reduce the risk of discoloring clothing we ask that you avoid washing clothes on Tuesdays during this period.





Spanaway Water's customers continued to meet our Water Use Efficiency Goal set at the 2013 annual meeting. That goal seeks to reduce the rolling six-year average pumped water per water service by at least 0.5% in each of the next six years. The 2016 goal was 284 gallons per day (GPD) per water service - actual average 2016 use was 269 GPD. Since setting the goal in 2013 usage has decreased by nearly 2.5% and since the Implementation of Water Use Efficiency in 2007 usage has decreased by 18.69% - WELL DONE!

The Company's leak detection and repair work in early 2016 was intended to reduced system leakage from the 17.3% seen in fiscal year 2016(179,644,242 gallons). For fiscal year 2017, which started last October 1<sup>st</sup>, we are seeing the lowest water pump per household in Spanaway

Water's history. This reflects both the leak repairs completed and the cool wet spring we have had, but water loss should be down considerably.

When it comes to leaks, you are our best monitors! If you see unexplained standing water please or notice a substantial drop in water pressure, give us a call – we will check it out.



## Community Participation

The annual meeting of SWC is held on the third Monday of November at 7:30 p.m. Members are elected to the Board of Directors at the annual meetings. The Board of Directors meet monthly on the third Thursday of each month at 4:00 p.m. Meetings are held at the Company office at 18413 "B" St. E. You are invited to participate in these meetings.

If you would like more information about Spanaway Water Company, information in this newsletter, contaminants, or any other water issues, we will be happy to answer your questions. Please see [www.spanaway-water.org](http://www.spanaway-water.org) or call (253) 531-9024 and ask for Jeff Johnson, Manager or Dwayne Farmer, Water Programs Manager.



## Message from the EPA

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, those persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (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.

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. Spanaway Water Company 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/lead](http://www.epa.gov/lead).

The U.S. EPA Office of Water [www.epa.gov/your-drinking-water](http://www.epa.gov/your-drinking-water) and the Centers for Disease Control and Prevention [www.cdc.gov](http://www.cdc.gov) web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Washington State Department of Health has a website [www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw) that provides complete and current information on water issues in Washington State, including valuable information about our watershed.

**Minimum Detectable Level (MDA):** the level of contaminant in drinking water that can be reliably detected by the laboratory.

**Maximum Contamination Level Goal (MCLG):** the level of a contaminant in drinking water below which there is no known or expected risk to health.

**Maximum Contamination Level (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.

**Action Level (AL):** the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

*Please use these definitions for the chart on the next page.....*

**MCLGs** allow for a margin of safety.

**ND:** not detectable at testing limit.

**N/A:** not applicable.

**mfl:** million fibers per liter.

**ppb:** parts per billion or micrograms per liter.

**ppm:** parts per million or milligrams per liter.

**pCi/l:** picocuries per liter (a measure of radiation)



## Sampling Results

For 2016, we sampled every source for nitrates and bacteria. The finished water was tested for bacteria and disinfection by-products (DBP). DBP's are the result of naturally occurring chemicals reacting with chlorination. The DBP's testing results were all less than 25% of the EPA's maximum contamination level. Some chemicals are listed as of the last detection date. We have also included the EPA's standards and information about the contaminants that were detectable. A complete listing of all water quality testing and highest levels ever found in the water system is available at the company office.

<b>CONTAMINANTS DETECTED IN 2016 WITH DESIGNATED MAXIMUM CONTAMINANT LEVELS (pwsid# 82850P)</b>						
<b>Compound:</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest</b>	<b>Range of Samples (Regulated at source)</b>	<b>Year</b>	<b>Typical Source of Contamination</b>
<b>Source Sampling</b>						
Nitrate (ppm)	10	10	4	0.2 - 4.0	2016	Runoff from fertilizer use; leaching from septic tanks, sewage, or erosion.
Fluoride (ppm)	4	4	0.3	<0.2 - 0.3	2009	Naturally occurring
Arsenic (ppb)	10	10	0.001	0.001-0.001	2016	Naturally occurring & Industrial Activities
Herb (ppm)	Varies - between 0.2 & 10,000		ND	ND-ND	2016	Runoff from farms, gardens & lawns
Pest (ppm)	Varies - between 0.2 & 10,000		ND	ND-ND	2016	Runoff from farms, gardens & lawns
VOC (ppm)	Varies - between 0.2 & 10,000		ND	ND-ND	2016	Septic tanks, landfills & industrial facilities
Gross Alpha	15		ND	ND-ND	2016	Naturally occurring
Radium-228	5		ND	ND-ND	2016	Naturally occurring
<b>REGULATED IN DISTRIBUTION SYSTEM</b>						
Haloacetic Acids (HAA5) (ppb)	60*	60	ND	ND - ND	2016 (quarterly)	By product of chlorination
Trihalomethanes (THM): (ppb)	80*	80	3.9	2.9-3.9	2016 (quarterly)	By product of chlorination
*Compliance is determined by running annual average of quarterly sampling for subcomponents of THMs and HAA5s.						
Asbestos (mfl)	7	7	<0.095	N/A - <0.095	2008	Asbestos piping
Total Coliform	0	0	0		2016	Naturally occurring throughout the environment
E coli	0	0	0		2015	Animal Wastes
Chlorine (ppm)	4	4	1.15	0.4-1.15	Daily	Water additive used to control microbes
<b>REGULATED AT CONSUMER'S TAP (BASED ON 90TH % OF CUSTOMERS TESTED)</b>						
Copper (ppm)	1.3	1.3	0.73	0.03 - .73 (0.66 - 90th %)	2016	Corrosion of household plumbing systems
Lead (ppb)	15	0	6	< 1 - 6 (4 - 90th%)	2016	Corrosion of household plumbing systems
<b>UNREGULATED CONTAMINANTS MONITORING RULES</b>						
Chromium (ppb)	100		0.47	ND - 0.47	2014	Naturally occurring & Industrial Activities
molybdenum (ppb)	Not set		1.8	ND - 1.8	2014	Naturally occurring & Industrial Activities
Strontium (ppb)	Not set		280	52 - 280	2014	Naturally occurring throughout the environment
Vanadium (ppb)	Not set		3.8	ND - 3.8	2014	Naturally occurring throughout the environment
Chlorate (ppb)	800		240	ND - 240	2014	By-product of drinking water chlorination
Hexavalent Chromium (ppb)	Not set		0.35	ND - 0.35	2014	Naturally occurring & Industrial Activities



# Spanaway Water Company

*Providing reliable, high quality water in an efficient and "friendly, professional" manner.*



PO Box 1000  
18413 "B" Street East  
Spanaway, WA 98387  
Tel: 253-531-9024  
Email: [customerservice@spanaway-water.org](mailto:customerservice@spanaway-water.org)

