

Camano Water Association

82 W Monticello Dr, Camano Island, WA 98282

CONSUMER CONFIDENCE REPORT

2017 Annual Drinking Water Quality Report

1. The Report

This is an annual report on the quality of water delivered by Camano Water Association (CWA). It meets the federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports". It contains information on water sources and the health risks, if any, associated with any contaminants. Safe water is vital.

The purpose of this report is to keep you informed about water quality, and how quality was monitored as the water was delivered over the past year. The goal is and always has been, to provide a safe and dependable supply of drinking water. The Board of Trustees and the staff strive continually to improve the water treatment process and to protect the water resource. Employee Dan Peterson is the Treatment Plant and Distribution Operator.

Water Use Efficiency

In addition to the water quality reporting outlined in the following document, CWA also gathers "Water Use Efficiency" information for annual performance reporting to the State Department of Health. For 2017 this includes a total production volume for the water system of 55,576,494 gallons. Authorized consumption (including customer use, filter backwashing, and flushing for maintenance operations) was equal to 53,925,023 gallons. Loss/leakage was approximately 1,651,471 gallons. This represents approximately 3.0% of the distribution system leakage, and the three-year average is approximately 4.80%. The "Water Use Efficiency" goal for CWA is: "Maintain single family sales per single family connection at less than 200 gallons per day on an average annual basis". This goal has been consistently met; in 2009 the average annual use per single-family connection dropped below 200 and has remained there since then. This success has been largely due to the efforts of CWA to fully meter the system and bill customers on a conservation rate structure. More information on the conservation plan or water use efficiency is available from the CWA office by calling (360) 387-9136.

2. Water Source

CWA's water source is entirely from wells, i.e. ground water, from a deep aquifer, aquifer C in US Geological Service notation, commonly known as a sea level aquifer. Such deep aquifers are regarded as protected from surface water contamination. The primary source of CWA's water is the three wells, numbers 6, 7, and 8, in the well field on Bonnie Lane. The water is treated by adding potassium permanganate and chlorine for oxidation, and filtered through pyrolucite media which adsorbs the iron and manganese to remove it from the water. Most of the system is gravity fed from reservoirs.

One other well (Number 5) is available for use if extra water is required or if there is a problem in the well field. Well number 4 is reserved for emergency use. Hypochlorite is added at the well head when these wells are in use.

3. Coliform Testing

As required by State law, the water is tested three times monthly for coliform bacteria by an independent lab. The water meets federal and state requirements.

Water Quality Analysis Table

Substance	Date Tested	Unit	MCL	MCLG	Detected Level	Range	Major Sources	Violation
Inorganic Chemicals								
5.Arsenic	7-11-11	ppm	0.10		ND		Erosion of natural deposits	No
Barium	7-11-11	ppm	2		0.047		Erosion of natural deposits	No
1.Flouride	7-11-11	ppm	4.0		0.18		Erosion of natural deposits, discharge from fertilizer and aluminum factories	No
Nitrate	7/22/16	ppm	10		ND		Runoff from fertilizer use; leaching from septic tanks	No
Copper	10-31-17	ppm	AL = 1.3	1.3	0.425	0.042-0.688	Corrosion of plumbing systems	No
Lead	10-31-17	ppm	0.015	0	0.001	0.00-0.002	Corrosion of plumbing systems	No
Chloride	4-23-12	ppm	250		20		Indicator of sea water intrusion	No
Iron	8-11-15	ppm	0.3		0.09		Erosion of natural deposits	No
2.Manganese	7-11-11	ppm	SMCL =0.05		0.010		Erosion of natural deposits	No
3.Radium 228 (Wellfield)	7-8-15	pCi/L	5		ND		Radioactive waste	No
3.Gross Beta	7-8-15	pCi/L	50		1.72		Radioactive waste	No
3.Gross Beta (Wellfield)	7-20-09	pCi/L	50		3.1		Radioactive waste	No
4/5.Sodium	7-20-09	ppm	LOC=20		22.8		Erosion of natural deposits	No
Sulfate	7-20-09	ppm	250		8.3		Erosion of natural deposits	No
Zinc	7-20-09	ppm	5		0.063		Erosion of natural deposits	No
Volatile Organic Compounds (VOCs) The lower section of this table has been reproduced at the back of this report, to allow for more detail.								
Trihalomethanes:								
Chloroform		ppb						
Bromodichloromethane		ppb						
Chlorodibromomethane		ppb						
Bromoform		ppb						
Total Trihalomethanes		ppb	80				By-product of drinking water chlorination	
Halo-Acetic Acids:								
Monochloroacetic Acid		ppb						
Dichloroacetic Acid		ppb						
Trichloroacetic Acid		ppb						
Monobromoacetic Acid		ppb						
Dibromoacetic Acid		ppb						
HAA (5) Total							By-product of drinking water chlorination	
Other:								
Bromochloroacetic Acid		ppb						

4. How to Contact CWA

Please read this report carefully and, if you have questions, call our staff at 360-387-9136. We can help answer questions about Camano Water Association and the water quality or operations.

The Monticello office is staffed from 8:00 am to 3:00 pm Monday through Friday; telephone 360-387-9136. For emergencies, Dan Peterson, or a contract employee are on call twenty four hours a day, seven days a week, and can be reached by dialing 360-387-9136 and following the instructions given.

Members are always welcome to attend the regular board meetings. Currently these are scheduled on the third Tuesday of the month at 82 W. Monticello Drive from 8:30 am until approximately noon. Due to scheduling conflicts however, dates and times change, so please call ahead to confirm the schedule.

The members' annual meeting is held on the morning of the first Saturday in November.

5. National Primary Drinking Water Regulation Compliance

The data presented in this report is from the most recent testing done in accordance with regulations. All data is from approved laboratories. Inorganic chemicals do not have to be measured every year: It is required that the most recent data be shown. Hundreds of regulated contaminants, which were undetected in the required testing, are omitted from the table.

The table shows the results of the water-quality analyses. Every regulated contaminant that was detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, and the usual sources of such contamination. Neither alpha or beta particles were detected. Substances not detected are not reported.

Water-Quality Table Footnotes

1. CWA does not add fluoride to the water:
2. Manganese is a secondary, rather than a primary contaminant. Its presence is not a violation.
3. Radium is measured in Pica curies per liter; reduced monitoring is expected due to these results.
4. Sodium is monitored as a possible indicator of sea water intrusion. 100 ppm triggers increased monitoring.

Key to Abbreviations

AL = Action Level

ND = Non Detect

N/A = Not Applicable

LOC = Level of concern

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MFL = million fibers per liter

ppb = parts per billion, or micrograms per liter ($\mu\text{g/l}$)

ppm = parts per million, or milligrams per liter (mg/l)

SMCL = Secondary Maximum Contaminant Level

SRL = state reporting level

6. Variances and Exemptions

None

7. Unregulated Contaminants **MANGANESE**

Duration: Manganese has always been found in the water supplied by CWA. The treatment plant consistently reduces the amount of manganese sent to distribution to below the MCL of 0.05 ppm.

Health Effects: Manganese is a secondary contaminant, the effects are aesthetic (staining of fixtures), not health related.

Action Taken: The Camano Water Association has installed a state of the art pyrolucite filtration system at their treatment plant to take care of the problem with both iron and manganese.

Copper, Lead and Sodium: Although the state board of health has not established MCLs for copper, lead, and sodium, there is sufficient public health significance connected with copper, lead, and sodium levels to require inclusion in inorganic chemical and physical source monitoring. For lead and copper, the EPA has established distribution system related levels at which a system is required to consider corrosion control. These levels, called "action levels," are 0.015 mg/L for lead and 1.3 mg/L for copper and are applied to the highest concentration in ten percent of all samples collected from the distribution system. CWA achieved this action level and has since hired an engineer to recommend a corrosion treatment for the system. The EPA has also established a recommended level of twenty mg/L for sodium as a level of concern for those consumers who may be restricted for daily sodium intake in their diets.

CWA did not test for cryptosporidium, as it is a surface water contaminant and we use ground water.

CWA did not test for Radon as Congress has set no limits.

8. Require Additional 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 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 (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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- (B) 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;
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- (D) 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 storm water runoff and septic systems.
- (E) 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some individuals may be more vulnerable to contaminants in drinking water than is the general population.- Immune-compromised persons, for example those with cancer undergoing chemotherapy or have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly or 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 or answers to other drinking water questions are available from the **Safe Drinking Water Hotline (800-426-4791)**. This report was prepared using technical assistance provided by the American Water Works Association, Douglas Kelly, Island County Hydro geologist, and the Washington State Department of Health Drinking Water Division. Edited by Camano Water Association. Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

In 2015, it was brought to the attention of the CWA that our water exceeded the maximum contaminant level (MCL) of 80 parts per billion (PPB), set forth by the Department of Health. The contaminants involved are classified as disinfection byproducts (DBP), and are a naturally occurring result of the chlorination process for domestic drinking water supplies. Upon receiving this information, and working together with the Department of Health, efforts began to reduce this number back down to a pre-mcl level. Unfortunately, we were unable to reduce this excess to the recommended levels during the 2015/16 period.

When the Department of Health informed us during 2016 that we were above the 80ppb threshold, we began informing our customers that attempts were still underway to correct the issue. The CWA began flushing the pipes within our service area twice a week to try and reduce the DBP present in the system. The CWA remains engaged with our engineer to assess (and implement) further steps that can be taken to reduce contaminant levels to within the recommended levels.

During 2017, CWA installed a new sprinkler system into three reservoir tanks, and installed new, larger, vents on top of the units. This work (which cost an estimated \$47,000) in conjunction with our flushing program saw some initial success in reducing the contaminant levels of our water supply. Unfortunately, this initial reduction did not allow us to successfully pass the three consecutive tests required by the Department of Health. While the CWA has not yet been able to sustainably reduce the contaminant levels present in our water, we remain optimistic that the processes we are putting in place will yield the desired results. Until such a time, we continue to keep both the DOH, and our customers, apprised of the situation.

CWA DBP Test Results for Cavalero Sample Station

Volatile Organic Compounds (VOC's)	Results	Results	Results	Results	MCL	
Trihalomethanes		1/13/2017	4/5/2017	7/19/2017	10/16/2017	
Chloroform	ppb	48.0	66.4	49.8	64.7	
Bromodichloromethane	ppb	19.9	24.9	21.0	26.9	
Chlorodibromoethane	ppb	6.3	7	5.7	8.5	
Bromoform	ppb	ND	ND	ND	ND	
Total Trihalomethanes	ppb	74.2	98.3	76.5	100.0	80
Halo-Acetic Acids		1/13/2017	4/5/2017	7/19/2017	10/16/2017	
Monochloroacetic Acid	ppb	ND	3.9	2.3	ND	
Dichloroacetic Acid	ppb	7.2	19.8	16.0	4.8	
Trichloroacetic Acid	ppb	24.7	39.9	24.1	28.9	
Monobromoacetic Acid	ppb	ND	ND	ND	ND	
Dibromoacetic Acid	ppb	ND	1.4	1.2	ND	
HAA (5) Total		31.9	65.0	43.6	33.7	60
Bromochloroacetic Acid	ppb	3.7	7.1	5.4	1.3	

CWA DBP Test Results for Cascade / Mt View B.O.

Volatile Organic Compounds (VOC's)	Results	Results	Results	Results	MCL	
Trihalomethanes		1/13/2017	4/5/2017	7/19/2017	10/16/2017	
Chloroform	ppb	35.4	60.0	47.7	55.4	
Bromodichloromethane	ppb	15.6	23.9	19.7	23.9	
Chlorodibromoethane	ppb	5.1	6.7	5.3	7.2	
Bromoform	ppb	ND	ND	ND	ND	
Total Trihalomethanes	ppb	56.1	90.6	72.7	86.5	80
Halo-Acetic Acids		1/13/2017	4/5/2017	7/19/2017	10/16/2017	
Monochloroacetic Acid	ppb	ND	3.9	ND	ND	
Dichloroacetic Acid	ppb	9.1	21.1	15.7	4.0	
Trichloroacetic Acid	ppb	22.1	40.1	25.1	23.0	
Monobromoacetic Acid	ppb	ND	ND	ND	ND	
Dibromoacetic Acid	ppb	ND	1.5	1.2	ND	
HAA (5) Total		31.2	66.6	42.0	27.0	60
Bromochloroacetic Acid	ppb	3.4	7.6	5.4	1.0	

