

# CITY OF UNALASKA

P.O. BOX 610  
UNALASKA, AK 99685  
PUBLIC WATER SYSTEM I.D. 260309

May 2019

## Unalaska Consumer Confidence Report 2018

### Unalaska Water Facts...

This brochure is a snapshot of the quality of the water that the City of Unalaska Water Utility provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and Alaska state standards. For more information about your water, visit the City of Unalaska website at <https://www.ci.unalaska.ak.us/> or call the Unalaska Department of Public Utilities at 907-581-1260 and ask for Dan Winters or Jeremiah Kirchofer.

Our constant goal is to provide you with a safe and dependable supply of drinking water. The City of Unalaska Water Utility wants you to understand the efforts we make to continually improve the water treatment process and protect our water resources. Our water supply comes from two sources, surface water from the Icy Creek Watershed in Pyramid Valley and two groundwater well sites consisting of four wells in Unalaska Valley.

#### Source Water Assessment

The State of Alaska has provided a "Source Water Assessment" report (dated July 2004) for our surface and ground water sources. Our water system has utilized this report to develop a protection plan for our water sources.

The report lists the vulnerabilities for our Icy creek surface water source as follows: "The water system is located in Unalaska and the intake is a surface water source. The overall protection area received a susceptibility rating of "very high". In addition, the water sources have received a vulnerability rating of "very high" for bacteria/viruses, "medium" for nitrates/nitrites, "medium" for volatile organic chemicals, "medium" for heavy metals, "medium" for synthetic organic chemicals and "medium" for other organic chemicals."

Vulnerabilities for our Well 1, 1A, 2 and 3 ground water sources were listed as follows: "The water system is located in Unalaska and the intake is groundwater wells. The wellheads received a susceptibility rating of "low" and the aquifer received a susceptibility rating of "very high". Combining these scores produces a natural susceptibility of "medium" for the source. In addition, this water system has received a vulnerability rating of "medium" for bacteria/viruses, "medium" for nitrates/nitrites, "low" for volatile organic chemicals, "low" for heavy metals, "low" for other organic chemicals, and "low" for synthetic organic chemicals."

For further information regarding this source water assessment, please contact the local water system operator, or the Alaska Resources Library & Information Services (ARLIS) located at 3211 Providence Drive, Room 111, Anchorage, Alaska 99508; phone number 907-272-7547. If the water operator does not have a copy of the source water assessment results, you may also access it online at the ADEC Drinking Water Watch website. Instructions on how to access it online may be obtained at: <https://dec.alaska.gov/DWW/JSP/swaDisclaimer.html> For specific questions regarding the results of the source water assessment, you may contact Chris Miller from ADEC Drinking Water Protection Program at 907-269-7549.

In its effort to supply you with the safest possible product, the City of Unalaska treats our water supply for disinfection of viruses and bacteria. Chlorine residual and UVT levels are continuously monitored to ensure proper dosages are being added.

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.

The City of Unalaska treats our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 Drinking Water Hotline at 1-800-426-4791.

To comply with Safe Drinking Water Act amendments, the City of Unalaska annually issues a report on the monitoring performed on its drinking water. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

For the 2018 calendar year (and up to five preceding years), some components were detected in amounts well below Federal Safe Drinking Water Act Maximum Contaminant Levels set for public water systems throughout the country. The tables included in this report list the detected constituents and other sampling results. Their presence does not necessarily indicate that water poses a health risk.

#### Violations and Compliance

**Treatment Technique Violation:** We are required by ADEC to maintain a minimum chlorine residual of 0.2 mg/L at our entry point to distribution for each daily reading in a specific month. Disinfection is one of the water treatment methods we use to ensure the safety of our drinking water. Although we met the required total number of daily chlorine readings in the month of October, two of the thirty-one daily chlorine residual readings were below the minimum EPA requirement of 0.2 mg/L which resulted in the treatment technique violation. However, we did return to compliance by consistently maintaining at or above the minimum EPA requirement for daily chlorine residual levels in the previous and succeeding months of 2018.

**Monitoring and Reporting Violations:** We are required by ADEC to take ten Total Coliform (TC) samples and ten distribution chlorine residual samples per month. The TC samples and distribution chlorine residual

samples must be taken at the same time at each location. This monitoring and reporting requirement is necessary to ensure our water is free of microbiological contaminants. In the month of May, we incurred a monitoring violation for missing two of the ten required TC samples, although the eight samples we took were all satisfactory. In 2018, we met this monitoring requirement in 11 of the 12 months and continue to be compliant in the following year.

In addition, we also incurred a monitoring and reporting violation when we missed the two distribution chlorine residual samples associated with the two missing TC samples. However, in the remaining months in 2018, we consistently monitored for all required TC samples with satisfactory lab results and we also monitored and reported for the corresponding distribution chlorine residual samples.

Some people may be more vulnerable to substances found 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/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Drinking Water Hotline (1-800-426-4791).

For opportunities for public participation in decisions that may affect the quality of water, please attend the regularly scheduled City Council meetings on the second and fourth Tuesdays of each month at 7 p.m.



## Water Quality Data...

Contaminants that may be present in source water before we treat it include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from, septic systems, livestock, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban storm-water runoff or industrial or domestic wastewater discharges.
- *Pesticides and Herbicides*, which may come from a variety of sources such as agriculture and residential uses.
- *Radioactive contaminants*, which are naturally occurring.
- *Organic chemical contaminants*, which originate from industrial processes, gas stations, storm runoff, and septic systems.

The City of Unalaska Water Utility tested our surface water supply for Cryptosporidium. The testing consisted of two samples per month for one year. Two Cryptosporidium oocysts were found in one of the twenty four samples. Cryptosporidium is a microbial pathogen found in drinking water throughout the U.S. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Unalaska Water Quality Report – 2018

The tables below list all the drinking water contaminants that we detected or sampled for during the 2018 calendar year. There are many regulations pertaining to sampling and monitoring of our water system. The City of Unalaska Water Utility constantly monitors the water supply for various constituents.

The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing performed from January 1 - December 31, 2018. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. By virtue of previous testing with satisfactory results the City of Unalaska has obtained a waiver for Synthetic Organic Compounds (SOC), Other Organic Compounds (OOC) and for Asbestos, and did not test for these contaminants during this time period.

Contaminant	MCL	MCLG	Level Detected	Typical Source of Substance	Health Effects
Turbidity (NTU) (Highest level in 2018 - Feb.)	5 NTU	N/A	<b>3.8 NTU</b>	Soil Runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Cryptosporidium (oocyst) (Tested Oct. 2006- Sept. 2007)	0	0	<b>2 oocysts per 240 Liters</b>	Microbial Contaminate	Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection.
Total Coliform (positive sample(s) /month)	0	0	<b>0</b>	Microbial Contaminate	Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful, bacteria may be present. Coliforms found in more samples than allowed are a warning of potential problems.

Unalaska Water Quality Report – 2018

Contaminant	MCL	MCLG	Level Detected	Typical Source of Substance	Health Effects
Total Trihalomethanes (ug/L) (Tested 2018)	80	0	<b>10.10 - 28.20</b>	By-product of drinking water chlorination; Also occurs naturally in soils and water	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.
Haloacetic Acids (ug/L) (Tested 2018)	60	0	<b>6.80 - 11.90</b>	By-product of drinking water disinfection	Some people who drink water containing halo acetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Gross Alpha (pCi/L) (Tested 2013)	15	0	<b>-0.001 to 1.2</b>	Occurs naturally in soils and water	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Radium 226 (pCi/L) (Tested 2013)	5	0	<b>0.14 - 0.21</b>	Occurs naturally in soils and water	Some people who drink water containing radium 226 in excess of the MCL over many years may have an increased risk of getting cancer.
Radium 228 (pCi/L) (Tested 2013)	5	0	<b>-0.42 to 0.56</b>	Occurs naturally in soils and water	Some people who drink water containing radium 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (ug/L) (Tested 2013)	30	0	<b>0.284 - 0.352</b>	Occurs naturally in soils and water	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Unalaska Water Quality Report – 2018

Contaminant	MCL	MCLG	Level Detected	Typical Source of Substance	Health Effects
Barium (ug/L) (Tested 2015)	2000	2000	<b>0 – 6.70</b>	Occurs naturally in soils and water	Some people who drink water containing barium in excess of the MCL over many years may have a higher risk of increased blood pressure.
Chromium (ug/L) (Tested 2015)	100	100	<b>ND</b>	Occurs naturally in soils and water	Some people who drink water containing chromium in excess of the MCL over many years may have an increased risk of allergic dermatitis.
Selenium (ug/L) (Tested 2015)	50	50	<b>ND</b>	Occurs naturally in soils and water	Some people who drink water containing selenium in excess of the MCL over many years may have an increased risk of hair and fingernail loss.
Arsenic (ug/L) (Tested 2018)	10	0	<b>ND</b>	Occurs naturally in soils and water	Some people who drink water containing arsenic in excess of the MCL over many years may have an increased risk of skin damage, circulatory system problems and cancer.
Nickel (ug/L) (Tested 2015)	N/A	N/A	<b>ND</b>	Occurs naturally in soils and water	Some people who drink water containing nickel in excess of the MCL over many years may have an increased risk of decreased body weight, dermatitis or heart and liver damage.
VOC's (units vary) (Tested 2018)	Varies	Varies	<b>ND</b>	Chemical Contaminant	Some people who drink water containing VOC's in excess of the MCL over many years may have an increased risk of cancer and/or other medical issues.
Nitrate [measured as Nitrogen] (ug/L) (Tested 2018)	10000	10000	<b>ND - 119.0</b>	Occurs naturally in soils and water	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Unalaska Water Quality Report – 2018

Contaminant	Action level	90 <sup>th</sup> percentile	# of homes exceeding Action level	MCLG	Typical Source of Substance	Health Effects
Lead (ug/L) (Tested 2018)	15.00	<b>10.20</b>	2 out of 20 tested	0	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Copper (ug/L) (Tested 2018)	1300.00	<b>1010.00</b>	0 out of 20 tested	1300.00	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

**Additional Information for Lead**

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 Unalaska 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 EPA's Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

**NOTE:** The EPA requires monitoring of over 70 drinking water contaminants. Those listed above are the only contaminants detected in your drinking water. For a complete list contact the City of Unalaska Water Utility.

## CCR Legend:

- **Maximum Contaminant Level (MCL)** - The “Maximum Allowed” (MCL) is 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 (MCLG)** - The “Goal” (MCLG) is 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.
- **Action Level (AL)** - The concentrations of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
- **Micrograms per liter (ug/L)** - parts of contaminant per billion parts of water.
- **Pico curies per liter (pCi/l)** - A measure of radioactivity.
- **Nephelometric Turbidity Unit (NTU)** - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Positive samples/month** - Number of samples taken monthly that were found to be positive.
- **N/A** - Not applicable.
- **ND** - Not detected.

The City of Unalaska Water Utility is proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. Thank you for your understanding.

For any questions please visit the City of Unalaska website at <https://www.ci.unalaska.ak.us/> or call our offices:  
Department of Public Utilities  
Dan Winters or Jeremiah Kirchhofer  
907-581-1260

The City of Unalaska Water Utility works diligently to provide top quality water to every home. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children’s future.

