

# 2019 Bethel City Subdivision Water Quality Report AK2271999

## **Is my water safe?**

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. Last year, we conducted tests for over 80 contaminants. We only detected 10 of those contaminants, and found only 1 at a level higher than the EPA allows. As we informed you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report.)

## **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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/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 Water Drinking Hotline (800-426-4791).

## **Where does my water come from?**

A ground water well located at 235 Akiak Drive supplies water to the Bethel City Subdivision water treatment plant located at the same address. Water treatment includes filtration to remove turbidity and color, disinfection with chlorine, and fluoridation before distribution.

## **Source water assessment and its availability**

A source water assessment for the Bethel City Subdivision water well was completed in 2014 and the results of the assessment are:

The Wellhead/Surface Intake Susceptibility is Low.

The Aquifer Susceptibility is Very High.

The overall vulnerability to potential contaminants is:

Bacteria and Viruses is Very High;

Nitrates/Nitrites is Very High;

Volatile Organic Chemicals is Very High;

Inorganics/Heavy Metals is Very High;

Synthetic Organic Chemicals is Very High;

Other Organic Chemicals is Very High.

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 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 assessments, you may contact Chris Miller from ADEC Drinking Water Protection Program at 907-269-7549.

### **Why are there contaminants in my 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: microbial contaminants, such as viruses and bacteria, that 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **How can I get involved?**

Interested persons can contact the Bethel City Subdivision by using the following contact information:  
Bethel City Subdivision Water Plant  
PO Box 1388  
Bethel, Alaska 99559  
Phone 907-543-5024  
FAX 907-543-5023

### **Waivers**

ADEC has granted us a monitoring waiver for Synthetic Organic Compounds (SOC). We are not required to monitor during the waived compliance period. We will continue to apply for waiver renewal at the end of each compliance period.

### **Monitoring and reporting of compliance data violations**

#### **Fluoride**

We are required to monitor for Fluoride on a monthly basis and did not do so for the month of October. We returned to compliance on 11/1/19.

## 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. Bethel City Subdivision 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>.

## Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	.68	.17	.78	2019	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	72	<del>10NA</del>	<del>24NA</del>	2019	Yes	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	55.7	<del>NA</del>	<del>15.3NA</del>	2019	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Barium (ppm)	2	2	.136	NA	NA	2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Fluoride (ppm)	4	4	.26	NA	NA	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury [Inorganic] (ppb)	2	2	.242	NA	NA	2016	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland

#### Radioactive Contaminants

Alpha emitters (pCi/L)	0	15	1.4	NA	NA	2017	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	.24	NA	NA	2017 <del>9</del>	No	Erosion of natural deposits

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps (ppm)	1.3	1.3	.983	2019	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Inorganic Contaminants</b>							
Lead - action level at consumer taps (ppb)	0	15	5.8	2019	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

#### Violations and Exceedances

##### Haloacetic Acids (HAA5)

Some people who drink water containing Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Our HAA5 was 72 ppb in December of 2019 which is over the MCL of 60 ppb. We use best management practices to keep our HAA5 in control.

#### Unit Descriptions

Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected

<b>Unit Descriptions</b>	
NR	NR: Monitoring not required, but recommended.

<b>Important Drinking Water Definitions</b>	
<b>Term</b>	<b>Definition</b>
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

<b>For more information please contact:</b>
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Contact Name: William Arnold  
Address: PO Box 1388  
Bethel, AK 99559  
Phone: 907-543-3110

# 2019 Bethel Heights Water Quality Report

## PWSID#AK2270346

### **Is my water safe?**

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

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### **Where does my water come from?**

The Bethel Heights water system gets its water from two deep groundwater wells located at the Bethel Heights Water Treatment Plant at 900 Ridgecrest.

### **Source water assessment and its availability**

Source water assessment and its availability

A source water assessment for both of the Bethel Heights water wells was completed in 2004. The results of the assessment for each of the two wells was identical and are:

Executive Summary:

The Wellhead/Surface Intake Susceptibility is Low.

The Aquifer Susceptibility is Very High.

The overall vulnerability to potential contaminants is:

Bacteria and Viruses is Very High;

Nitrates/Nitrites is Very High;

Volatile Organic Chemicals is Very High;

Inorganics/Heavy Metals is Very High;

Synthetic Organic Chemicals is Very High;

Other Organic Chemicals is Very High.

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 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:

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### **How can I get involved?**

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### **Waivers**

ADEC has granted us a monitoring waiver for Synthetic Organic Compounds (SOC). We are not required to monitor during the waived compliance period. We will continue to apply for waiver renewal at the end of each compliance period.

### **Monitoring and reporting of compliance data violations**

#### **Consumer Confidence Report (CCR)**

We were required to complete, distribute, and submit a CCR report for 2017 to ADEC before 7/1/18 and failed to do so. We were also required to submit the 2017 certification page to ADEC before 10/1/18 and failed to do so. We did complete those requirements and returned to compliance on 3/8/19.

#### **Lead and Copper**

We are required to submit lead and copper samples for monitoring once every three years and failed to do so for the 2017-2019 sample period. We plan to submit samples in 2020 and return to compliance.

#### **Operator Report**

We are required to submit our monthly operator report to ADEC by the 10th of the following month and failed to do so for the month of October. This triggered two violations, one for not reporting the Chlorine residual for October, and the other for not reporting the Fluoride results for October. We did submit the October operator report and returned to compliance on 12/5/19.

#### E Coli

We are required to submit 3 samples for E Coli monthly and only submitted two for the month of October. We did submit all samples in the following month and returned to compliance on 11/21/19.

#### Chlorine

We are required to report 3 Chlorine residual results from distribution system sampling and only reported the results for two in October. We did submit the proper number of residual results in November and returned to compliance on 12/5/19.

### **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. Bethel Heights 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>.

### **Water Quality Data Table**

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<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	.59	.01	.59	2019	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	37	28	37	2019	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	24.4	24	24.4	2019	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Barium (ppm)	2	2	.235	NA	NA	2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	.665	NA	NA	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury [Inorganic] (ppb)	2	2	1.29	NA	NA	2016	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate [measured as Nitrogen] (ppm)	10	10	.301	NA	NA	2019	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Radioactive Contaminants</b>								
Radium (combined 226/228) (pCi/L)	0	5	1.14	NA	NA	2017	No	Erosion of natural deposits
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
<b>Inorganic Contaminants</b>								
Copper - action level at consumer taps (ppm)	1.3	1.3	1.04	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
<b>Inorganic Contaminants</b>								
Lead - action level at consumer taps (ppb)	0	15	3.21	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

<b>Unit Descriptions</b>				
<b>Term</b>	<b>Definition</b>			
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TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.			
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.			
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.			
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.			
MRDL	MRDL: Maximum residual disinfectant level. 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.			
MNR	MNR: Monitored Not Regulated			
MPL	MPL: State Assigned Maximum Permissible Level			
<b>TT Violation</b>	<b>Explanation</b>	<b>Length</b>	<b>Health Effects Language</b>	<b>Explanation and Comment</b>
Ground Water Rule violations	We received two Ground Water Rule Treatment Technique violations for not reporting the corrective actions taken from our 2017 Sanitary Survey.	The violations were for the period 1/1/19 -3/15/19.	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	We completed the corrective actions and reported them by 3/15/19 and returned to compliance.
<b>For more information please contact:</b>				

Contact Name: William Arnold      Phone: 907-543-3110  
Address: PO Box 1388 Bethel, AK 99559