#### Water Quality Data Table 2016

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report (2016). The presence of contaminants in the water does not necessarily indicate the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA and/or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. The City of Palmer operates under two waivers for sampling. One is an asbestos waiver; there has never been any piping containing asbestos used within the City, so we are not required to sample for it. We also have a SOC/OOC waiver which eliminates sampling for contaminants that have never been introduced to this area.

| Contaminant and Type                          | MCLG<br>or<br>MRDLG   | MCL<br>TT, or<br>MRDL   | Your<br>Water   | Ra                      | nge        | Sample<br>Date               | Violation<br>Yes or No  | Typical Source  |  |
|---|---|---|-----------------|-------------------------|------------|------------------------------|-------------------------|---|--|
|   |   |   |                 | Low                     | High       |                              |                         |   |  |
| Disinfectants & Disinfectant by-products      |   |   |                 |                         |            |                              |                         |   |  |
| Chlorine Residual (ppm)                       | NA  | 4.0   | 0.6             | 0.10                    | 0.60       | 2016                         | No                      | Drinking water disinfectant   |  |
| TTHMs [Total<br>Trihalomethanes] (ppb)        | NA  | 80  | 9.0             | NA                      | 9.0        | 2016                         | No                      | By-product of drinking water disinfection   |  |
| HAA5 [Total Haloacetic<br>Acids] (ppb)        | NA  | 60  | 1.1             | NA                      | 1.1        | 2016                         | No                      | By-product of drinking water disinfection   |  |
| <b>Inorganic Contamina</b>                    | nts   |   |                 |                         |            |                              |                         |   |  |
| Barium (ppm)                                  | 2   | 2   | 0.0502          | 0.0208                  | 0.0502     | 2013                         | No                      | Erosion of natural deposits   |  |
| Fluoride (ppm)                                | 4   | 4   | 0.166           | NA                      | 0.166      | 2013                         | No                      | Erosion of natural deposits, water additive<br>that promotes strong teeth                         |  |
| Nitrate [measured as<br>Nitrogen] (ppm)       | 10  | 10  | 0.806           | NA                      | 0.806      | 2016                         | No                      | Runoff from fertilizer use; leaching from<br>septic tanks, sewage, erosion of natural<br>deposits |  |
| <b>Radioactive Contami</b>                    | nants   |   |                 |                         |            |                              |                         |   |  |
| Radium (combined 226/228) (pCi/L)             | 0   | 5   | 0.191           | 0.850                   | 0.191      | 2016                         | No                      | Erosion of natural deposits   |  |
| Uranium                                       | 0   | 30  | 0.0003<br>ppm   | NA                      |            | 2013                         | No                      | Erosion of natural deposits   |  |
| Microbiological Conta                         | aminants  |   |                 |                         |            | -                            |                         |   |  |
| Total Coliform (positive<br>samples/month)    | 0   | 1   | 1               | NA                      |            | 2016                         | No                      | Naturally present in the environment  |  |
| Contaminant and Type                          | MCLG  | AL  | Your Water      | Samp                    | le Date    | # Samples<br>Exceeding<br>AL | Exceeds<br>AL<br>Y or N | Typical Source  |  |
| <b>Inorganic Contamina</b>                    | nts   |   |                 |                         |            |                              |                         |   |  |
| Lead-action level at<br>consumer taps (ppb)   | 0   | 15  | 2.16            | 20                      | )16        | 0                            | No                      | Corrosion of household plumbing<br>systems, erosion of natural deposits                           |  |
| Copper-action level at<br>consumer taps (ppm) | 1.3   | 1.3   | 0.141           | 20                      | )16        | 0                            | No                      | Corrosion of household plumbing<br>systems, erosion of natural deposits                           |  |
| Additional Contaminant                        | ts  |   |                 |                         |            |                              |                         |   |  |
|   |   | accible the (   | State require   |                         | opitor co  | me centamin                  | ante not ree            | nuired by Edderal regulations Of  |  |
|   | in an effort to ensure the safest water possible, the State requires us to monitor some contaminants not required by Federal regulations. Of these contaminants only the one listed below was found in your water                           |   |                 |                         |            |                              |                         |   |  |
| Contaminant                                   | State MCL   | Your Water  | 1               | Explanation and Comment |            |                              |                         |   |  |
| Nickel  | State MCL   | 8.97 ug/L   | No              | 2013                    | ľ          | Слрі                         |                         |   |  |
| Violations and Exceedance                     |   | 0.97 uy/L   | NO              | 2015                    | I          |                              |                         |   |  |
| Failure to provide 2015 CC                    |   | tive system h   | efore deadlin   | e                       |            |                              |                         |   |  |
| Unit Descriptions                             |   | tive system b   |                 | <u> </u>                |            |                              |                         |   |  |
| Term  | Definition  |   |                 |                         |            |                              |                         |   |  |
| ug/L  | Number of n   | nicrograms of   | substance p     | er one Li               | ter of wa  | ater                         |                         |   |  |
| ppm   |   | llion, or millig  |                 |                         |            |                              |                         |   |  |
| ppb   | Parts per billion, or micrograms per liter (μ/L)  |   |                 |                         |            |                              |                         |   |  |
| pCi/L   |   | Picocuries per liter (measure of radioactivity)   |                 |                         |            |                              |                         |   |  |
| NA  |   | Not Applicable  |                 |                         |            |                              |                         |   |  |
| ND  | Not Detected  | 244   |                 |                         |            |                              |                         |   |  |
| NR  |   | ot required, l  | out recomme     | nded                    |            |                              |                         |   |  |
| Important Drinking Wa                         |   | COMPANY STREET  |                 |                         |            |                              |                         |   |  |
| 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   | MCLGs as is fe  | Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as is feasible using the best available treatment technology. |                 |                         |            |                              |                         |   |  |
| Π   | Treatment Te  | chnique: A req  | uired process i | ntended t               | o reduce t | the level of a co            | ontaminant in           | drinking water.   |  |
| AL  | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.   |   |                 |                         |            |                              |                         |   |  |
| Variances & Exemptions                        | State or EPA permission not to meet anMCL or a treatment technique under certain conditions.  |   |                 |                         |            |                              |                         |   |  |
| 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 use of disinfectants to control microbial contaminants |   |                 |                         |            |                              |                         |   |  |
| MRDL  | Maximum residual disinfection 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   | Monitored Not Regulated.  |   |                 |                         |            |                              |                         |   |  |

MPL

State assigned Maximum Permissable Level.



City of Palmer 231 W. Evergreen Avenue Palmer, AK 99645

# This is your 2016 City of Palmer Annual Water Quality Report. For more information, contact Alycia Anderson at the City of Palmer—761-1351

| Stay up-to-date!  | How is  |  |  |  |  |  |
|---|---|--|--|--|--|--|
| The City of Palmer has a Face-<br>book page, a twitter account,<br>and a hotline (761-1358) that<br>we use to share information<br>about events, changes in ser-<br>vices, project information, etc.<br>Visit www.cityofpalmer.org for<br>more information. | Your w<br>Disinfect<br>chlorine<br>facility.<br>ous ba<br>may be<br>disinfect<br>the maj<br>20th ce |  |  |  |  |  |
| Protection of drinking wate   | r is everyd   |  |  |  |  |  |
| sponsibility!<br>You can help protect your community's drinl<br>source in several ways:<br>Eliminate  |   |  |  |  |  |  |
| Eliminate excess use of lawn & garden ferti<br>pesticides. They contain hazardous chemi   |   |  |  |  |  |  |

water is treated by disinfection. ction involves the injection of e into the water at the treatment Chlorine is used to kill dangeracteria and microorganisms that e in the water. Drinking water ction is considered to be one of ajor public health advances of the entury.

# one's

nking w

tilizers nicals th can reach your drinking water source.

#### Pick up

Clean up after your pets

### Dispose

Dispose of chemicals properly; take used motor o a recycling center.

#### <u>Volunteer</u>

Palmer Soil & Water Conservation District is a lo organization in Palmer, check them out at www.palmersoilandwater.org. Use EPA's Adopt Ye Watershed to locate groups in your community

#### s my drinking water treated?

### Help keep your drinking water safe!

Report any suspicious behavior/activities that you see around City reservoirs and water wells to the Palmer Police at 745-4811 or Public Works at 745-3400.

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# 2016 ANNUAL DRINKING WATER QUALITY REPORT PALMER WATER SYSTEM ID # AK226020

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.

### Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

### Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing crossconnection control regulations and ensuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- · Boiler/ Radiant heater (water heaters not included)
- · Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional sources of water on the property
- Decorative pond
- Watering trough

## **Capital Project Update**

Sherrod Area Water & Street Improvements Phase 4– Most of the construction was completed last summer. The Contractor will be out this spring and early summer finishing up punch list items.

# Monitoring & Reporting of Compliance Data Violations

Failure to provide 2015 CCR to consecutive water system before deadline.

# **Cryptosporidium Monitoring**

Cryptosporidium is a microbial pathogen found in water throughout the U.S. Although disinfection removes cryptosporidium the most commonly used methods cannot guarantee 100% removal. Our monitoring indicated the presence of these organisms in our finished water in Spring 2016. Current test methods do not allow us to determine if the organisms are dead or capable of causing illness. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of an infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the illness in a few weeks. However, immune-compromised people are at a 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 illness and it may be spread through means other than drinking water.

### Where does your water come from?

Your water comes from three different groundwater wells which are numbered 1, 4, and 5. The State of Alaska Department of Environmental Conservation (ADEC) conducted source water assessments for all three wells. Wells 4 and 5 are located at 950 E. Cope Industrial Way (latitude +61° 35.150' and longitude -149° 05.795'). Well 1 is located at 11971 E. Scott Road (latitude +61°36.466' and longitude -149°08.979'). The production of water is primarily through alternating operation of wells 4 and 5; though they are capable of simultaneous operation if required. Wells 4 and 5 provide 90% of your water. Well 1 runs as needed and supplies 10% of your water. The source water assessment may be obtained by calling Public Works at 745-3400.

The well heads received a susceptibility of low and the well aquifer received susceptibility ratings ranging from low to very high depending on the well. Combining these scores produces an overall susceptibility of low to medium for the sources. In addition, this water system has received a vulnerability rating of medium for bacteria/viruses, medium to high for nitrates/ nitrites, low to high for volatile organic chemicals, low to high for heavy metals, other organic chemicals, and for synthetic organic chemicals.

## Water Conservation Tips

Did you know that the average Palmer household uses approximately 150 gallons of water per day, which works out to be ~38 gallons per person per day? There are many low and no-cost ways to conserve water. Small changes can make a big difference – try one today!

#### Short showers

A 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.

### Water off

Turning faucets off while brushing your teeth, washing your hair and shaving can save up to 500 gallons a month.

#### Water saving showerhead

They're inexpensive, easy to install, and can save you up to 750 gallons a month. Full loads

Run your washing machine and dishwasher only when they are full. You can save up to 1,000 gallons a month.

# Fix the leak

Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.

#### What are you watering?

Driveways and asphalt don't need water. Adjust sprinklers so only the yard is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation. 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 Palmer is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components in your residence. 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.

### 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 from humans or animals, microbial contaminants, agricultural operations, wildlife, inorganic contaminants, industrial or domestic wastewater discharges, oil and gas production, mining, pesticides and herbicides, or organic chemical contaminants. 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. Reporting suspicious vehicles or activities near your water supply will greatly help in protecting your water supply.

# **Information About Lead**