



# City of Palmer

1316A S. Bonanza St.  
Palmer, AK 99645  
Phone: 907-745-3400 Fax: 907-745-3203  
www.cityofpalmer.org

## 2010 ANNUAL DRINKING WATER QUALITY REPORT PUBLIC WATER SYSTEM ID # AK2226020

We are pleased to present the 2010 Drinking Water Quality Report for the City of Palmer. This report is designed to keep you informed about the excellent water quality we have provided to you over the past year as well as inform you about upgrades to our water system throughout the City.

### Capital Projects

Southwest Extension: The City of Palmer recently completed phase IIb of a multi-phase water line extension project to serve the western side of their water district along Trunk Road. Plans for the next phase which will serve the University of Alaska Mat-Su Campus on Trunk Road are nearing completion.

Steel Water Main Replacement: The City is continuing with their steel water main replacement work. The aging steel pipe was past its serviceable life span and numerous leaks were discovered. Ductile iron pipe was selected as the best replacement product and with each section completed, the City noticed a large water savings. In 2009, the water demand was 364,923,000 gallons and in 2010 it dropped to 312,706,400. That reduction of 52,216,600 gallons in one year helped reduce our operating expense.

### Water Sources

The State of Alaska Department of Environmental Conservation (ADEC) has provided us with source water assessments for wells 1, 4 and 5 and these are available upon request for viewing. The water wells that serve Palmer are located at Lat. 61° 35.150' Lon. 149° 05.795' for wells # 4&5 and Lat. 61°36.466' Lon. 149°08.979' for well #1.

The wellheads received a susceptibility of low and the aquifer received susceptibility ratings ranging from low to very high dependant on the well. Combining these scores produces a natural 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. Your water is supplied by three groundwater wells. Wells 4 and 4 are located at 950 E. Cope-Industrial Road, and well 1 is located at 11971 E. Scott Road. The production of water is primarily through alternating operation of wells 4 and 5; though they are capable of simultaneous operation if required. These two wells will normally supply 90% of your water. Well 1 runs as needed and supplies 10% of your water. A source water protection plan is available from the Wasilla ADEC office.

### Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides—they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

### Water Treatment

We are fortunate to have a good clean water source at the City of Palmer. Water is disinfected with a chlorine solution and fluoride is added to assist in preventing dental diseases. After treatment the water is either discharged directly into our distribution system or pumped to one of our four storage tanks.

### 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 storm water 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 storm water 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 storm water 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. By reporting suspicious vehicles or activities near the wells or near your water supply will help greatly in protecting your water supply.

**Do you need to take special precautions with your drinking water?**

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 Drinking Water Hotline.

**Water Conservation Tips**

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Fix leaky toilets and faucets. 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.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

**Water Quality Data Table**

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. 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 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 we are not required to sample for it. We also have an SOC/OOC waiver which eliminates sampling for contaminants that have never been introduced to this area.

Contaminant and Type	MCLG or MRDLG	MCL TT, or MRDL	Your Water	Range		Sample Date	Violation Yes or No	Typical Source
				Low	High			
<i>Inorganic</i>								Discharge from drilling wastes; discharge from metal refineries, erosion of natural deposit
<b>Barium (ppm)</b>	2	2	0.0471	0.0193	0.0471	2010	No	
<b>Copper</b> Action level at consumer taps (ppm)								Corrosion of household plumbing systems, erosion of natural deposits
	1.3	1.3	0.205	NA		2010	No	
<b>Lead</b> Action level at consumer taps (ppb)								Corrosion of household plumbing systems, erosion of natural deposits
	0	15	4.5	NA		2010	No	
<b>Arsenic (ppb)</b>	0	10	0	NA		2010	No	Erosion of natural deposits

<b>Nitrate</b> (ppm)	10	10	Low: ND High: .639	NA	2010	No	Erosion of natural deposits
Fluoride (ppm)	4.0	4.0	Low: ND High: 1.29	NA	2010	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Xylene, total	10	10	Low: ND High: .0013	NA	2010	No	Discharge from petroleum factories; Discharge from chemical factories
In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.							
Nickel (ug/L)	NA		94.4	2010	0	No	
In 2010 we tested twenty (20) homes for lead and copper. The test result table reflects the highest level detected from all twenty homes. None of the samples exceeded the action level (AL) listed in the table. The next lead and copper testing will be done before the end of 2013; we will be required to test at least 20 homes depending on the population at the time of sampling.							
<b>Disinfectants &amp; Disinfectant By-Products</b>							
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)							
<b>Contaminant</b>	<b>MCLP</b>	<b>AL</b>	<b>Your Water</b>	<b>Sample Date</b>	<b># Samples Exceeding AL</b>	<b>Exceeds AL Y or N</b>	<b>Typical Source</b>
<b>Haloacetic Acids</b> (HAA5) (ppb)	N/A	60	0	2010	N/A	No	By-product of drinking water chlorination
<b>Total Trihalomethane</b> (TTHMs) (ppb)	N/A	80	Low: 4.91 High: 9.5	2010	0	No	By-product of drinking water disinfection
<b>Unit Descriptions</b>							
<b>Term</b>	<b>Definition</b>						
ug/L	Number of micrograms of substance per one Liter of water						
ppm	Parts per million, or milligrams per liter (mg/L)						
ppb	Parts per billion, or micrograms per liter (µ/L)						
pCi/L	Picocuries per liter (measure of radioactivity)						
N/A	Not Applicable						
ND	Not Detected						
NR	Monitoring not required, but recommended						
<b>Term</b>	<b>Important Drinking Water Definitions</b>						
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	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.						
TT	Treatment Technique: A required process intended to reduce the level of a contaminant 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 Permissible Level.

**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).

**Monitoring Results**

To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL (maximum contaminant level) for a lifetime to have a one-in-a-million chance of having the described health effect. The City of Palmer monitors the distribution system by doing bacterial samples eight times a month according to DEC regulations.

**Questions?**

If you have any questions about this report or concerning your water utility, please contact Thomas Cohenour, Public Works Director at 745-3400 or John Berberich, Utilities Foreman at 863-0746. All test results are available to the public either through the City of Palmer Public Works Department at 745-3400, or through the Alaska Department of Environmental Conservation, 1700 E. Bogard Road, Building B, Suite 202, Wasilla or 376-5038.

**Public Information Notice**

The City is required under their National Pollutant Discharge Elimination System (NPDES) to develop a public information and education program to control the introduction of household hazardous material to the sewer system.

For example, some of the hazardous wastes found in homes are: acids, antifreeze, caustics, cleaners, disinfectants, floor wax, furniture stripper, herbicides, old medication, paint products, paint thinner, pcb's, pesticides, poisons, printing and photographic chemicals, solvents, transmission fluids, wood preservatives and many more.

To assist the City in keeping these items out of the sewer system it is requested that you contact the Central Landfill at 745-9838 for dates and times when you may bring hazardous wastes in for disposal.

Your cooperation in this matter will allow the City to operate its wastewater treatment facility in accordance with EPA requirements and the design of the facility.