

Letter from the Site Manager continued

be able to identify leaks in the system as well as excess energy consumption, allowing Fort Wainwright to reduce energy consumption, ultimately saving the Army money.

- A new 400 kW standby generator is planned for the water plant. Currently, the plant has a 25 kW generator that only supplies enough power for lights and minor equipment. The new generator will supply enough power to keep a large service pump online and with the assistance of diesel driven backup wells, keep water flowing on the Post. This will lessen the chance of customer water service being affected by power outages.
- We are undertaking a project to reinsulate sections of the steam and condensate lines in the utilidors. This project will not only help reduce heat loss but will also keep the potable water lines in the utilidor cooler. If you have ever turned on the cold water in your home only to get warm water, this upgrade will help alleviate the issue.
- We are embarking on a project to replace all utilidor covers at Fort Wainwright. We expect to replace 600 in 2009 and more in 2010. The new covers will have lockable lids with panic hardware that will allow individuals to get out of the utilidors in the case of the lid accidentally being closed. This project will prevent unauthorized access and enhance security to the utility system.
- We are upgrading the water treatment facilities; this includes purchasing new equipment to reduce the number of chemicals used which will in turn improve the quality and taste of the water.

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Drinking Water Quality Fort Wainwright Alaska

First Annual Water Quality Report • June 2009

Letter from the Site Manager



Shayne Coiley,
 Doyon Utilities Fort
 Wainwright Site Manager

As a water provider, we are required to send out yearly water quality reports, informing you about the quality of the water you use on a daily basis. I would also like to take this opportunity to introduce you to our company, Doyon Utilities. Doyon Utilities took over the ownership, operations and maintenance of the water, wastewater collection, electric and heat distribution systems at Fort Wainwright in August of 2008. The purchase of these utilities was part of the government's move towards privatization of utilities throughout installations across the United States.

Foremost in my message to you this year is that our water quality has met or exceeded all public drinking water standards established by the United States Environmental Protection Agency and the Alaska Department of Environmental Conservation. I am happy to

report that we have experienced no water quality violations. Please see the water quality report inside for a detailed analysis of the past year's results. Based upon the information summarized in this report, you can have total confidence in the quality of water you consume.

Since we took ownership in August of 2008, Doyon Utilities has made capital investments of over \$22.5 million at Fort Wainwright. Capital investments include, among other things, upgrades and new plant. It is important to note that Doyon Utilities has reinvested every dollar we have earned thus far back into strengthening the utility and will continue to do so in the foreseeable future.

The following are projects that have either already taken place or are in the planning and engineering stage that will have a positive impact on your quality of life.

Utility projects that affect you

- Residential water, electric and steam meters are in the process of being installed. These meters are state-of-the-art and use a technology that allows wireless automatic readings. When these meters go live, we will

continued on back

- The utilidor from Pine Street to 602nd street (approximately 2500 feet) was upgraded; this project was completed in September of last year by the Corps of Engineers. The utilidor lids were removed and the water line was replaced. In addition, the electrical, steam, condensate and wastewater lines were also upgraded and reinsulated. These changes will ensure that the overall utility system will have the capacity to meet the demand of the new Denali Village housing.
- Approximately 2700 feet of utilidor along Santiago to Montgomery and a section of Oak

Avenue to Santiago were upgraded last fall by the Corps of Engineers. This required the removal of the utilidor lids and the addition of twelve inches to the height of the utilidor so that the water, steam, wastewater and condensate lines could be reconfigured and upgraded to accommodate the larger pipe.

Please note that the above projects are just a portion of what we have embarked on. If you have any questions about our projects, please feel free to call my office at 907-455-1571.

Source Water Assessment

For the last several years, the ADEC has been working on assessments of the vulnerability of the water sources that provide water to all of the public water systems in Alaska. The source water assessment for Fort Wainwright Water Treatment Plant has been completed and is available for review by contacting Kathleen Hook at 907-455-1540, or by visiting the Noel Wien Library in Fairbanks. The following table is from the Executive Summary of our assessment:

Source Water Assessment Report Executive Summary Data - PWSID# AK2310918

The public water system for Ft Wainwright/Water Treatment Plant is a Class A water system consisting of 10 source intake(s). The water system is located in Fairbanks and the intake for this PWSID is a groundwater well.

DISCLAIMER: Information provided on this page is automatically generated from a database of Source Water Assessment information. For additional details, please view the actual Executive Summary contained in the Source Water Assessment Report.

Source Intake	Wellhead Susceptibility	Aquifer Susceptibility	Normal Susceptibility	Water System Vulnerability Rating					
				Bacteria/ Viruses	Nitrates/ Viruses	Volatile Organic Chemicals	Heavy Metals	Other Organic Chemicals	Synthetic Organic Chemicals
Well #1	Low	Very High	Medium	High	Low	High	Low	Low	Low
Well #2	Low	Very High	Medium	High	Low	High	Low	Low	Low
Well #3	Low	Very High	Medium	High	Low	High	Low	Low	Low
Well #4	Low	Very High	Medium	High	Low	High	Low	Low	Low
Well #5	Low	Very High	Medium	High	Low	High	Low	Low	Low
Well #6	Low	Very High	Medium	Very High	Medium	High	High	High	Medium
Well #7	Low	Very High	Medium	High	Medium	High	High	Medium	Low
Well #8	Low	High	Medium	High	Low	Medium	Low	Low	Low
Well #9	Low	Very High	Medium	High	Low	High	Low	Low	Low
Well #10	Low	Very High	Medium	High	Low	High	Low	Low	Low

Where does our water come from?

Fort Wainwright draws its water supply from two primary and two secondary, or back-up, groundwater wells. Additional wells are used for fire suppression but are only activated when the distribution system has a significant drop in water pressure. The water is very good quality and requires very little treatment and disinfection prior to being distributed to customers.

Fort Wainwright's drinking water is obtained from an underground aquifer called the "Tanana Basin Alluvium." This aquifer, which ranges from a few feet to approximately 300 feet thick, provides us with

continued inside

Drinking Water Quality Report

Doyon Utilities is proud of the high quality water it provides to our customers. This annual water quality report provides information on the source of our water, lists the results of water quality tests that are conducted and contains other important information about water and health.

Doyon Utilities will notify you immediately if there is any reason for concern about your water. We are happy to report to you how we have surpassed established water quality standards. Doyon Utilities is in compliance with the national primary drinking water regulations and has met all testing and monitoring requirements. The EPA has determined that your water is safe at the tested and monitored levels. We have included a table inside outlining the tests conducted and the results of those tests.

We are proud to report that the water provided by Doyon Utilities meets or exceeds established water quality standards.



Fort Wainwright Team: These are just 18 of our 60 employees at Fort Wainwright. *Front row left to right:* Kendall Price, Dave Kerner, Randy Dunn, Benno Cleveland, Warren Howard, Bill Sparks, Denny Jolly, Shayne Coiley, Roy Davis. *Back row left to right:* John Werczynske, Charlie Davenport, Charles Smith, Kurt Cook, Dennis Jones, Ken Brown, Kevin Price, Mark Fleming, Todd Vincent

Water Testing and Your Health

The sources of drinking water from both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land and 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:

- Microbial contaminants, such as viruses and bacteria, which 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 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, storm water runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, 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. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who

have undergone organ transplants, persons 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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

We're happy to answer any other questions about Doyon Utilities and our water quality. For general information or for water quality questions call our site management office at 907-455-1571.

Other Resources:

Environmental Protection Agency's Safe Drinking Water Hotline: 1-800-426-4791.

Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

Terms and Abbreviations Used

Action Level (AL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level (MCL): 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 technology.

Maximum Contaminant Level Goal (MCLG): 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.

Not Applicable (NA): When NA is used in the range column, only one sample was taken, therefore, no range exists.

Not Detectable (ND): The contaminant is below the detectable limits of the testing method.

PIC/L: Picocuries per liter.

ppb: Parts per billion or micrograms per liter.

ppm: Parts per million or milligrams per liter.

Lead/Copper in Drinking Water

The EPA Safe Drinking Water Act requires public water systems to test water samples from its customers to determine lead and copper levels. If present, elevated levels of lead can cause serious health problems, especially in pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. There is nothing in the treatment process that would introduce lead into the water; therefore, Doyon Utilities tests the water at the individual service locations. If abnormal levels of lead or

copper are detected in the water supply, Doyon Utilities will notify the residents and implement action to correct the problem. One method to minimize the risk of lead or copper contamination is to let the tap water run for 30 seconds to 2 minutes to flush any water that has been sitting for several hours. It is important to use this approach for drinking water or cooking water. 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>.



What's Really 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water hotline at 1-800-426-4791.

Fort Wainwright routinely monitors for contaminants in your drinking water according to Federal and State laws. Prior to Doyon Utilities taking over ownership of the drinking water, the previous owner did not provide the consumer confidence report to the State in a timely manner, which constitutes a violation. This does not pose a risk to our drinking water source. The table below shows the results for some of our required monitoring

for the period 1/1/08 to 12/31/08 and lists the Regulated Contaminants required to be monitored by the EPA that were detected in your water. All the substances we found were present in quantities less than the EPA limits for safe drinking water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. If you would like a complete listing of test results, please call Kathleen Hook at 907-455-1540.

Contamination	Sample Date	Violation Y/N	Level Detected	MCLG	MCL	Likely Source of Contamination	Health Effects
The following constituents were detected in low levels. Fort Wainwright is required to test for these analyses quarterly.							
Total Trihalomethanes	3/4/08	N	50.1 ppb	NA	80	By-product of drinking water chlorination	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 systems, and may have an increased risk of getting cancer.
	5/7/08	N	57.5 ppb				
	9/15/08	N	76.0 ppb				
	11/12/08	N	49.4 ppb (avg)				
	11/18/08	N	70.5 ppb				
Total Haloacetic Acids	3/4/08	N	15.6 ppb	NA	60	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of EPA's standard over many years may have an increased risk of getting cancer.
	5/7/08	N	41.8 ppb				
	9/15/08	N	20.4 ppb				
	11/12/08	N	23.0 ppb (avg)				
	11/18/08	N	39.3 ppb				
The following constituents were detected in low levels. Fort Wainwright is required to test for these analyses every three years.							
Arsenic	5/7/08	N	0.68 ppb	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Lead ¹	7/17/08	N	90% = 3.74 ppb	0	AL=15	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 ¹	7/17/08	N	90% = 0.309 ppm	1.3	AL=1.3	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.
¹ Multiple samples were taken, each corresponding to a unique location.							
The following constituents were detected in low levels. Fort Wainwright is required to test for these analyses every six years.							
Radium, Combined (226, 228)	Quarterly Composites 2005	N	1.0 PIC/L	0	5	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
The following constituents were detected in low levels. Fort Wainwright is required to test for these analyses every nine years.							
Barium	8/29/06	N	0.175 ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
	8/29/06	N	0.185 ppm				
Chromium	8/29/06	N	2.76 ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
	8/29/07	N	2.61 ppb				
Fluoride	3/22/02	N	0.58 ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and/or pitting of the teeth., and occurs only in developing teeth before they erupt from the gums.
Nickel	8/29/06	N	2.14 ppb	100	100	Occurs naturally in soils, groundwater, and surface waters and is often used in electroplating, stainless steel, and alloy product	Nickel has been shown to damage the heart and liver in laboratory animals when the animals are exposed at high levels over their lifetimes.
	8/29/06	N	2.29 ppb				
Thallium	8/29/06	N	0.0766 ppb	0.5	2	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

Where does our water come from? continued

an excellent supply of good quality drinking water. An assessment completed by the U.S. Army Corp of Engineers (USACE) identified that although our raw (untreated) water is susceptible to potential sources of contamination, such as fuel storage tanks, they have not impacted our supply of water. Currently we use several wells located throughout the installation to draw water from the aquifer. The water is then treated to Alaska Department of Environmental Conservation (ADEC) drinking water standards prior to being distributed to your home. The water treatment plant consists of a small, pressurized green sand filter plant connected to the water distribution system. Much of the water distribution system is enclosed in the vast utilidor system.

The treatment process is fairly simple. As the water from the primary and secondary groundwater wells enters the water treatment facility, it is mixed with potassium permanganate. This chemical is used to aid in the removal of iron and manganese, which are naturally occurring substances in groundwater. The water flows through several filters designed to remove the iron and manganese which can cause stains, tastes and odors in water if not removed. After the filtration process, the water enters a clearwell and is mixed with sodium hypochlorite (disinfects the water), fluoride (promotes healthy teeth and gums), soda ash (adjusts the pH), and sodium hexameta-phosphate (prevents corrosion in the distribution system). The finished water is tested three times daily to ensure the pH, chlorine residual and fluoride content are at their optimum levels. Additionally, we closely monitor all drinking water contaminants required by the EPA Safe Drinking Water Act, and are proud to provide you with the highest quality product possible. We are proud to report the results of our water quality tests and allow you to have complete confidence in the water you consume.

If you would like to review the USACE Source Water Assessment for Fort Wainwright, please contact Kathleen Hook at 907-455-1540.



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