

Presented By
Old North Utility Services, Inc.,
Camp Mackall/ Fort Bragg ATF



Old North
Utility Services, Inc.
A Subsidiary of American States Utility Services, Inc

ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2016

We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Where Does My Water Come From?

Did you know that 70 percent of the earth is water? It is found in the forms of rivers, streams, ponds, reservoirs, springs, and wells. Camp Mackall receives treated surface water from the Southern Pines Water Treatment Plant (SPWTP). The SPWTP gets its water supply from a surface water source located at Drowing Creek.

The ATF receives ground water from a well located within the Drowing Creek basin.

Important Health Information

Some people may be more vulnerable to contaminants 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or at <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban storm-water runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to <http://goo.gl/QMoIXT>.



About ONUS- Fort Bragg ATF Exceedance

In September 2016, we exceeded the Action Level (AL) for lead at one sampling location at ATF. We are recommending that the initial treatment considered for this AL exceedance is replacement of the interior faucet utilized at this sampling location. The existing device does not meet NSF-61 standards. We are coordinating replacement with the property owner and after replacement will coordinate follow-up sampling with NC-DWQ. This is an approved remediation plan because this is the first AL exceedance at this location. If follow-up analysis results in a second exceedance, NCDWQ will be contacted immediately for further requirements and installation of the recommended treatment methods.

The following is an outline of the proposed Action Plan:

1. Coordinate with facility owner to replace existing lead faucets with NSF- and AWWA-approved lead-free appurtenances.
2. Once replaced, a special non-compliance sample will be requested from NCDWQ for confirmation that lead and copper AL exceedance was attributed to the interior faucets/appurtenances.
3. If another exceedance were to occur at this facility, we recognize that additional treatment will be required. We will contact NC-DWQ and immediately work toward instituting the required treatment.

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.

Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Web site at <https://goo.gl/Jxb6xG>.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Amanda Owens, Operations Support Manager of Old North Utility Services, Inc., at (910) 495-1311.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environmental Quality (DEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information, and a relative susceptibility rating of Higher, Moderate, or Lower. The relative susceptibility rating of each source for the Town of Southern Pines was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.).

The assessment findings for Susceptibility of Sources to Potential Contaminant Sources (PCSs) are:

SOURCE NAME:	SUSCEPTIBILITY RATING:	SWAP REPORT DATE:
Drowing Creek	Moderate	July 10, 2015

The complete SWAP Assessment Report for the Town of Southern Pines may be viewed on the Web at: <http://www.ncwater.org/pws/swap>. The SWAP results and reports are periodically updated, therefore the results available on this website may differ from the results that were available at the time this CCR was prepared. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email a request to swap@ncdenr.gov.

Please indicate the Southern Pines WTP system name, PWSID #03-63-010, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff at 919-707-9098. It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the systems’ potential to become contaminated by PCSs in the assessment area.

The relative susceptibility rating of each source for Old North Utility Services, Inc. - Fort Bragg ATF - Aberdeen Training Facility was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.).

The assessment findings for Susceptibility of Sources to Potential Contaminant Sources (PCSs) are:

SOURCE NAME:	SUSCEPTIBILITY RATING:	SWAP REPORT DATE:
Well #2	Moderate	July 8 2015
Well #1	Moderate	July 8 2015

The complete SWAP Assessment Report for Old North Utility Services, Inc. - Fort Bragg ATF- Aberdeen Training Facility may be viewed on the Web at: <http://www.ncwater.org/pws/swap>. Please note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this website may differ from the results that were available at the time this CCR was prepared. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email a request to swap@ncmail.net. Please indicate your system name, PWSID, and provide your name, mailing address, and phone number. If you have any questions about the SWAP Report, please contact the Source Water Assessment staff by phone at 919-715-2633. It is important to understand that a susceptibility rating of “higher” does not imply poor water quality, only the systems’ potential to become contaminated by PCSs in the assessment area.

Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the nonprofit organization, Clean Water for North Carolina, has a Web site (<https://goo.gl/na06hQ>) that provides complete and current information on water issues in North Carolina, including valuable information about our watershed.

Lead in Home Plumbing

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. We are 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 www.epa.gov/lead.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES											
				Old North Utility Services, Inc., Camp Mackall		Southern Pines		Old North Utility Services, Inc., Camp Mackall/ Fort Bragg ATF			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloramines (ppm)	2016	[4]	[4]	1.284	0.28–3.34	NA	NA	NA	NA	No	Water additive used to control microbes
Chlorine (ppm)	2016	[4]	[4]	2.064	0.51–3.10	2.3	1.3–2.9	1.18	0.20–2.90	No	Water additive used to control microbes
Fluoride (ppm)	2016	4	4	NA	NA	1.0	0.1–1.0	NA	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2016	60	NA	19.9	9.1–14.6	36.7	2.0–67.0	1.2	ND–1.2	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	12.4	4.1–23.2	17.1	4.7–34.0	1.9	ND–1.9	No	By-product of drinking water disinfection
Total Organic Carbon [TOC] ¹ (ppm)	2016	TT	NA	NA	NA	1.40	1.20–1.65	NA	NA	No	Naturally present in the environment
Turbidity (NTU)	2016	TT = 1 NTU	NA	NA	NA	0.03 ²	NA ²	NA	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2016	TT = 95% of samples meet the limit	NA	NA	NA	100	NA	NA	NA	No	Soil runoff

Tap Water Samples Collected for Lead and Copper Analyses from Sample Sites throughout the Community											
				Old North Utility Services, Inc., Camp Mackall		Southern Pines		Old North Utility Services, Inc., Camp Mackall/ Fort Bragg ATF			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2015	1.3	1.3	0.427	0/5	0.109	0	0.25 ³	0/11 ³	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2015	15	0	<3	0/5	4	0	8 ³	1/11 ³	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

¹ Depending on the TOC in our source water, the system must have a certain % removal of TOC or must achieve alternative compliance criteria. If that % removal is not achieved, there is an alternative % removal. If this alternative % removal is not achieved, the system is in violation of a Treatment Technique.

² Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU.

³ Sampled in 2016.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule.

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.

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.

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.

MRDLG (Maximum Residual Disinfectant 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.