

**Presented By**  
**Old North Utility**  
**Services, Inc.**



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

# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2016

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (512) 352-3251.

PWS ID#: NC 50-26-019

## 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.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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 <http://water.epa.gov/drink/hotline>.



## When You Turn on Your Tap, Consider the Source

Fort Bragg customers are fortunate because we enjoy an abundant water supply from two sources, the Harnett County Water Treatment Plant (Cape Fear River) and the Fayetteville Public Works Commission (PWC) Water Treatment Plant (Cape Fear River and Lake Glenville). Both Water Treatment Plants are located within the Cape Fear River Basin.

## Source Water Assessment

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply Section (PWS), 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 relative susceptibility rating of Higher, Moderate, or Lower. The relative susceptibility rating of each source for Old North Utility Services, Inc. - Fort Bragg 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 watershed and its delineated assessment area). The assessment findings are summarized here:

### SUSCEPTIBILITY OF SOURCES TO POTENTIAL CONTAMINANT SOURCES (PCSs)

SOURCE NAME	SUSCEPTIBILITY RATING
Harnett County (Cape Fear River)	Higher
Fayetteville PWC (Cape Fear River)	Higher
Fayetteville PWC (Lake Glenville)	Higher

The complete SWAP Assessment report for Old North Utility Services, Inc., 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 Web site 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.org](mailto:swap@ncdenr.org). Please indicate your system name and 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) 707-9100. 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 areas.

## 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 that 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 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 may also come from gas stations, urban stormwater 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.

## 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 we 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](http://www.epa.gov/lead).

## Testing for *Cryptosporidium*

*Cryptosporidium* is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of source water indicates the presence of these organisms. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

## 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.



## 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 often 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											
				Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045		Old North Utility Services, Inc. NC 50-26-019			
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
Alpha Emitters (pCi/L)	2016	15	0	3.40	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Beta/Photon Emitters <sup>1</sup> (pCi/L)	2016	50	0	4.60	NA	NA	NA	NA	NA	No	Decay of natural and man-made deposits
Chloramines (ppm)	2016	[4]	[4]	3.04	1.03–3.04	3.04	1.08–3.98	1.825	0.14–3.34	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2016	[800]	[800]	NA	NA	76	ND–488	NA	NA	No	Water additive used to control microbes
Chlorine (ppm)	2016	[4]	[4]	1.76	0.01–1.76	2.43	0.71–3.80	1.79	0.3–3.7	No	Water additive used to control microbes (chlorine disinfection is used only during the month of March each year)
Chlorite (ppm)	2016	1	0.8	NA	NA	0.240	0.140–0.350	NA	NA	No	By-product of chlorine dioxide
<i>E. coli</i> (# positive samples)	2016	see footnote #2	0	NA	NA	NA	NA	1 <sup>3</sup>	NA	No	Human and animal fecal waste
Fluoride (ppm)	2016	4	4	0.66	0.11–0.88	0.60	NA	NA	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2016	60	NA	35	20–42	29.0	8.5–24.6	17	3–22	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	49	19–78	35.0	11–52	38	14–59	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2016	5% positive monthly samples	0	1.59	NA	5.6	NA	1.4	NA	No	Naturally present in the environment
Total Organic Carbon [TOC] <sup>4</sup> (removal ratio)	2016	TT	NA	1.53	1.42–1.67	1.45	1.33–1.56	NA	NA	No	Naturally present in the environment
Turbidity <sup>5</sup> (NTU)	2016	TT = 1 NTU	NA	0.27	0.03–0.27	0.09	NA	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2016	TT = 95% of samples meet the limit	NA	100	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045		Old North Utility Services, Inc. NC 50-26-019		VIOLATION	TYPICAL SOURCE		
		AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL			AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL
Copper (ppm)	2014	1.3	1.3	ND	0	0.155 <sup>6</sup>	0 <sup>6</sup>	<0.003 mg/L	0 <sup>6</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2014	15	0	1.0	3	ND <sup>6</sup>	0 <sup>6</sup>	<0.050 mg/L	0 <sup>6</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits

### UNREGULATED SUBSTANCES <sup>7</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045		Old North Utility Services, Inc. NC 50-26-019		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Bromodichloromethane (ppb)	2016	11.38	6.62–26.00	NA	NA	12.15	6.6–21	Associated with chlorine disinfection
Bromoform (ppb)	2016	0.84	0.0001–4.00	NA	NA	1.24	ND–3.5	Associated with chlorine disinfection
Chlorodibromomethane (ppb)	2016	5.50	2.00–19.375	NA	NA	7.7	6.13–8.6	Associated with chlorine disinfection
Chloroform (ppb)	2016	18.13	16.00–26.75	NA	NA	12.625	6.7–20	Associated with chlorine disinfection
Cryptosporidium (oocysts/L)	2016	0.18	NA	NA	NA	NA	NA	Naturally occurring
Dibromoacetic Acid (ppb)	2016	NA	NA	NA	NA	2.52	ND–4.9	Associated to Chlorine Disinfection
Dichloroacetic Acid (ppb)	2016	NA	NA	NA	NA	6.09	ND–11	Associated to Chlorine Disinfection
Hardness (ppm)	2016	34.00	NA	NA	NA	NA	NA	Presence of mineral deposits, most commonly calcium and magnesium
Monobromoacetic Acid (ppb)	2016	NA	NA	NA	NA	ND	ND	Associated to Chlorine Disinfection
Monochloroacetic Acid (ppb)	2016	NA	NA	NA	NA	ND	ND	Associated to Chlorine Disinfection
Sodium (ppm)	2016	15.2	NA	25.09	NA	NA	NA	Erosion of natural deposits; Chemical used in water treatment
Sulfate (ppm)	2016	70.0	NA	46.6	NA	NA	NA	Erosion of natural deposits; decay of organic matter
Trichloroacetic Acid (ppb)	2016	NA	NA	NA	NA	3.08	ND–6.2	Associated to Chlorine Disinfection

### UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3) <sup>7</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Harnett County NC 03-43-045		Old North Utility Services, Inc. NC 50-26-019	
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
1,4 Dioxane (ppb)	2014	NA	NA	2.39	ND–4.2
Chlorate (ppb)	2013	NA	NA	290	ND–310
Hexavalent Chromium (ppb)	2013	NA	NA	0.031	ND–0.034
Perfluorhepatonic Acid [PFHpA] (ppb)	2013	0.04	0.04–0.04	NA	NA
Strontium (ppb)	2013	NA	NA	50	49–51
Vanadium (ppb)	2013	0.025	0.02–0.03	NA	NA

<sup>1</sup>The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

<sup>2</sup>Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

<sup>3</sup>*E. coli* was detected in a sample dated 6/28/2016. Follow-up sampling did not detect *E. coli* in any other samples at either the original location or subsequent up-stream and down-stream locations. The *E. coli* detection did not result in a violation of the *E. coli* MCL.

<sup>4</sup>Depending on the TOC in our source water, the system MUST have a certain % removal of TOC or must achieve alternative compliance criteria. If we do not achieve that % removal, there is an alternative % removal. If we fail to meet the alternative % removal, we are in violation of a Treatment Technique.

<sup>5</sup>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.

<sup>6</sup>Sampled in 2016.

<sup>7</sup>Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted.

<sup>8</sup>Sampled in 2013.

## Definitions

**AL (Action Level):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that 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 By-Products 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.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**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.

**SMCL (Secondary Maximum Contaminant Level):** SMCLs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

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