



ANNUAL  
WATER  
QUALITY  
REPORT

WATER TESTING PERFORMED IN 2014



*Presented By*



Old North  
Utility Services, Inc.

A Subsidiary of American States Utility Services, Inc.

## Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water.

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

## 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>.

## 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.

## QUESTIONS?

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

## 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 and the Fayetteville Public Works Commission (PWC) Water Treatment Plant. 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)	
Harnett County (Cape Fear River)	Higher Susceptibility Rating
Fayetteville PWC (Cape Fear River)	Higher Susceptibility Rating
Fayetteville PWC (Glenville Lake)	Higher Susceptibility Rating

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 your request to [swap@ncmail.net](mailto:swap@ncmail.net). 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 area.



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner

walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

#### NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

#### ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

## Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES											
				Old North Utility Services, Inc. NC50-26-019		Fayetteville PWC NC03-26-010		Harnett County NC03-43-045			
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)	2014	[4]	[4]	2	0.9–2.8	NA	NA	3.12	1.19–3.97	No	Water additive used to control microbes
Chlorine (ppm)	2014	[4]	[4]	1.17	0.3–2.0	NA	NA	1.82'	0.45–3.02'	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2014	[800]	[800]	NA	NA	NA	NA	61	ND–702	No	Water additive used to control microbes
Chlorite (ppm)	2014	1	0.8	NA	NA	NA	NA	0.304	0.140–0.440	No	By-product of drinking water disinfection
Fluoride (ppm)	2014	4	4	NA	NA	0.713	0.14-0.90	0.77	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2014	60	NA	22 (Highest LRAA)	ND–43	29.25 (Highest LRAA)	13–51	19.4 (Highest LRAA)	10.5–27.3	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	37 (Highest LRAA)	15–57	42.88 (Highest LRAA)	17–62	37 (Highest LRAA)	16–58	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2014	5% of monthly samples are positive	0	1.37	NA	0.07	NA	2.20	0	No	Naturally present in the environment
Total Organic Carbon [TOC] <sup>2</sup> (removal ratio)	2014	TT	NA	NA	NA	1.88	0.90–2.60	1.29	1.07–1.45	No	Naturally present in the environment
Turbidity <sup>3</sup> (NTU)	2014	TT=1 NTU	NA	NA	NA	0.029	NA	0.14	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT=95% of samples <0.3 NTU	NA	NA	NA	100	NA	100	NA	No	Soil runoff

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

				Old North Utility Services, Inc. NC50-26-019		Fayetteville PWC NC03-26-010		Harnett County NC03-43-045			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2014	1.3	1.3	0 <sup>1</sup>	0 <sup>1</sup>	ND	0	0.098	NA	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2014	15	0	0	0	0.001	0	0 <sup>4</sup>	0 <sup>4</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits

## SECONDARY SUBSTANCES

				Old North Utility Services, Inc. NC50-26-019	Fayetteville PWC NC03-26-010	Harnett County NC03-43-045					
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2014	50	NA	NA	NA	ND	NA	11	NA	No	Leaching from natural deposits
Sulfate (ppm)	2014	250	NA	NA	NA	NA	NA	34.4	NA	No	Runoff/leaching from natural deposits; Industrial wastes
pH (Units)	2014	6.5–8.5	NA	NA	NA	NA	NA	7.4	NA	No	Naturally occurring

## UNREGULATED AND OTHER SUBSTANCES <sup>5</sup>

			Old North Utility Services, Inc. NC50-26-019	Fayetteville PWC NC03-26-010	Harnett County NC03-43-045					
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE		
1,4 Dioxane <sup>6</sup> (ppb)	2014	2.39	ND–4.2	4.3765 <sup>4</sup>	0.155–8 <sup>4</sup>	3.45	2.5–4.4	Solvent utilized in industry		
Alkalinity (ppm)	2014	NA	NA	23.1	NA	NA	NA	Erosion of natural deposits; Water treatment processes		
Bromodichloromethane (ppb)	2013	15	ND–21	14.34 <sup>1</sup>	7.5–19.38 <sup>1</sup>	NA	NA	By-product of drinking water disinfection		
Bromoform (ppb)	2013	0.004	ND–0.012	1.21 <sup>1</sup>	ND–3.63 <sup>1</sup>	NA	NA	By-product of drinking water disinfection		
Chlorate <sup>6</sup> (ppb)	2013	290	ND–310	156 <sup>4</sup>	94–230 <sup>4</sup>	428.3	290–530	By-product of drinking water disinfection		
Chlorodibromomethane (ppb)	2013	11	ND–25	8.07 <sup>1</sup>	2.88–16.13 <sup>1</sup>	NA	NA	By-product of drinking water disinfection		
Chromium (ppb)	2013	NA	NA	0.3	ND–0.3	NA	NA	NA		
Chloroform (ppb)	2013	18	ND–44	18.94 <sup>1</sup>	10.50–27.50 <sup>1</sup>	NA	NA	By-product of drinking water disinfection		
Dibromoacetic Acid (ppm)	2013	0.004	0.0014–0.0107	NA	NA	NA	NA	Disinfectant by-product		
Dichloroacetic Acid (ppm)	2013	0.014	ND–0.0325	NA	NA	NA	NA	Disinfectant by-product		
Hardness (ppm)	2014	NA	NA	29.6	NA	NA	NA	Presence of mineral deposits, most commonly magnesium and calcium		
Hexavalent Chromium <sup>6</sup> (ppb)	2013	0.031	ND–0.034	0.04875	0.033–0.089	0.046	0.04–0.06	Commonly used in industry; Oxidized state of the naturally occurring element chromium		
Monochloroacetic Acid (ppm)	2013	0.0024	ND–0.0034	NA	NA	NA	NA	Disinfectant by-product		
Perfluorohepatonic Acid (PFH <sub>9</sub> PA) (ppb)	2013	NA	NA	0.01	ND–0.01	0.04	0.04	Solvent		
pH (Units)	2014	NA	NA	7.7	NA	NA	NA	Measurement of acid or base neutralizing capacities of water		
Sodium (ppm)	2014	NA	NA	11.73	NA	33.2	NA	Erosion of natural deposits; Chemical use in water treatment		
Strontium <sup>6</sup> (ppb)	2013	50	49–51	46.5	26–62	62.6	60–64	Chemical element found in nature		
Sulfate (ppm)	2014	NA	NA	34.7	NA	NA	NA	Erosion of natural deposits, decay, or organic matter		
Trichloroacetic Acid (ppm)	2013	0.005	ND–0.011	NA	NA	NA	NA	Disinfectant by-product		
Vanadium (ppb)	2013	NA	NA	0.74	ND–0.74	0.19	0.02–0.03	NA		

<sup>1</sup> Sampled in 2014.

<sup>2</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 the first % removal, there is an alternative % removal. If we fail to meet the alternative % removal, we are in violation of a Treatment Technique.

<sup>3</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>4</sup> Sampled in 2013.

<sup>5</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>6</sup> This substance was sampled for as a part of the third stage of the Unregulated Contaminant Monitoring Rule (UCMR3).

## Definitions

**AL (Action Level):** The concentration of a contaminant which, 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.

**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.