Annual

WATER QUALITY REPORT

Reporting Year 2013

Presented By

Old North
Utility Services, Inc.

PWS ID#: NC 50-26-019

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

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 www.nrdc.org/water/drinking/bw/exesum.asp.

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 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.

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 were 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 below:

Susceptibility of Water 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 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@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) 707-9100. It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

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 http://water.epa.gov/drink/hotline.

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.

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/safewater/lead.

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 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 EPA needs to introduce new regulatory standards to improve drinking water quality. Any UCMR3 detections are shown in the data tables in this report. Contact us for more information on this program.

REGULATED SUBSTANCES

				Old North Utility Services, Inc. NC 50-26-019		Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045			
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
Alpha Emitters (pCi/L)	2007	15	0	NA	NA	0.7	ND–0.7	NA	NA	No	Erosion of natural deposits
Barium (ppm)	2013	2	2	NA	NA	0.02	NA	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters[1] (pCi/L)	2007	50	0	NA	NA	0.9	NA	NA	NA	No	Decay of natural and man-made deposits
Chloramines (ppm)	2013	[4]	[4]	2.36	1.15–3.03	NA	NA	3.15	1.40–3.98	No	Water additive used to control microbes
Chlorine (ppm)	2013	[4]	[4]	0.33	0.16–0.44	NA	NA	1.91	0.87–3.12	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2013	[800]	[800]	NA	NA	NA	NA	38	10–347	No	Water additive used to control microbes
Chlorite (ppm)	2013	1	0.8	NA	NA	NA	NA	0.17	0.03–0.260	No	By-product of drinking water disinfection
Combined Radium (pCi/L)	2007	5	0	NA	NA	0.7	NA	NA	NA	No	Erosion of natural deposits
Fluoride (ppm)	2013	4	4	NA	NA	0.64	0.14–0.90	0.741	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Stage 2 (ppb)	2013	60	NA	22	0.00–47	21	13–52	23.6	13.5–32.5	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2013	80	NA	43	0–73	56.38	22–67	49	23.6–72	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2013	5% of monthly samples are positive	0	1.37	NA	0.98	NA	3.03	NA	No	Naturally present in the environment
Total Organic Carbon [TOC] (removal ratio)	2013	TT	NA	NA	NA	2.14	1.40–4.4	1.27	1.096–1.42	No	Naturally present in the environment
Turbidity[3] (NTU)	2013	TT=1 NTU	NA	NA	NA	0.3	0.02–0.3	NA	0.09	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2013	TT=95% of samples <0.3 NTU	NA	NA	NA	99.98	NA	100	NA	No	Soil runoff
Uranium (ppb)	2007	30	0	NA	NA	0.8	NA	NA	NA	No	Erosion of natural deposits

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

				Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0.053	0	0.098	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	ND	3	ND	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	Fayetteville PWC NC 03-26-010 AMOUNT DETECTED	Fayetteville PWC NC 03-26-010 RANGE LOW-HIGH	Harnett County NC 03-43-045 AMOUNT DETECTED	Harnett County NC 03-43-045 RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2013	50	NA	ND	NA	0.013	NA	No	Leaching from natural deposits
Sulfate (ppm)	2013	250	NA	62.1	NA	63.5	NA	No	Runoff/leaching from natural deposits; Industrial wastes
pH (Units)	2013	6.5-8.5	NA	7.8	NA	7.2	NA	No	Naturally occurring

PHYSICAL CHARACTERISTICS

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Fayetteville PWC NC 03-26-010 AMOUNT DETECTED	Fayetteville PWC NC 03-26-010 RANGE LOW-HIGH	Harnett County NC 03-43-045 AMOUNT DETECTED	Harnett County NC 03-43-045 RANGE LOW-HIGH
Alkalinity (ppm)	2013	33	NA	NA	NA
Hardness (ppm)	2013	36	NA	NA	NA
Sodium (ppm)	2013	62.1	NA	37.98	NA

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Old North Utility Services, Inc. NC 50-26-019 AMOUNT DETECTED	Old North Utility Services, Inc. NC 50-26-019 RANGE LOW-HIGH	Fayetteville PWC NC 03-26-010 AMOUNT DETECTED	Fayetteville PWC NC 03-26-010 RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2013	15	ND–21	15.59	9.38–21.13	By-product of drinking water disinfection
Bromoform (ppm)	2013	0.004	ND–0.012	0.01	ND–0.01	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2013	11	ND–25	9.63	4.13–22.13	By-product of drinking water disinfection
Chloroform (ppb)	2013	18	ND–44	21.44	10.50–39.25	By-product of drinking water disinfection

OTHER UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Old North Utility Services, Inc. NC 50-26-019 AMOUNT DETECTED	Old North Utility Services, Inc. NC 50-26-019 RANGE LOW-HIGH	Fayetteville PWC NC 03-26-010 AMOUNT DETECTED	Fayetteville PWC NC 03-26-010 RANGE LOW-HIGH	TYPICAL SOURCE
1,4-Dioxane[4] (ppb)	2013	4.89	1.31–4.89	8	0.155–8	Solvent utilized in industry
Chlorate[4] (ppb)	2013	400	200–400	230	94–230	By-product of drinking water disinfection
Chromium[4] (ppb)	2013	0.31	ND–0.31	0.3	ND–0.3	NA
Dibromoacetic Acid (ppm)	2013	0.004	0.0014–0.0107	NA	NA	Disinfectant by-product
Dichloroacetic Acid (ppm)	2013	0.014	ND–0.0325	NA	NA	Disinfectant by-product
Hexavalent Chromium[4] (ppb)	2013	0.08	0.066–0.080	0.089	0.033–0.089	Commonly used in industry. Oxidized state of the naturally occurring element chromium.
Monochloroacetic Acid (ppm)	2013	0.0024	ND–0.0034	NA	NA	Disinfectant by-product
Perfluorohepatanoic acid (PFHpA)[4] (ppb)	2013	NA	NA	0.01	ND–0.01	Solvent
Strontium[4] (ppb)	2013	70	40–70	62	26–62	Chemical element found in nature
Trichloroacetic Acid (ppm)	2013	0.005	ND–0.011	NA	NA	Disinfectant by-product
Vanadium[4] (ppb)	2013	0.35	0.23–0.35	0.74	NA	NA

Definitions

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

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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

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

[1] The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.
[2] 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.
[3] 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.
[4] This constituent was sampled for as part of the third stage of the Unregulated Contaminant Monitoring Rule (UCMR3).