

Annual
WATER
QUALITY
REPORT

Reporting Year 2011



Presented By _____



PWS ID#: NC 50-26-019

Quality First

We are pleased to present this 2011 Water Quality Report, which contains information about testing completed through 2011. We test for various constituents in the water to comply with all regulations and to provide you the highest-quality water possible. We are proud to say that the quality of your water routinely meets or is better than all federal and state standards. Old North Utility Services, Inc., diligently works to protect every drop from source to tap. We are constantly improving our water infrastructure to ensure that our water supply and delivery systems are sufficient and reliable. We routinely perform maintenance so that our storage facilities, pipelines, and other equipment are operating as efficiently as possible. Ongoing maintenance helps us maintain the quality of our water and minimize any disruptions in service. We are also committed to fostering ongoing communications with our customers so we can be partners in an effort to use water more efficiently. Thank you for providing us the opportunity to serve you.

Why Do I Get This Report Each Year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.

QUESTIONS?

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

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: Fayetteville Public Works Commission and Harnett County Department of Public Utilities. Both PWC and Harnett County's water treatment plants are located within the Cape Fear River Basin.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, review the Cross-connection Control Manual from the U.S. EPA's Web site at <http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised 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>.

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 (800) 426-4791 or at www.epa.gov/safewater/lead.

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 assessments are available in SWAP Assessment reports that include maps, background information, and relative susceptibility ratings 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 Sources to Potential Contaminant Sources (PCSs)	
Harnett County (Cape Fear River)	Higher Susceptibility Rating
Fayetteville PWC (Cape Fear River)	Higher Susceptibility Rating
Fayetteville PWC (Glennville Lake)	Higher Susceptibility Rating

The complete SWAP Assessment report for Old North Utility Services, Inc., may be viewed on the Web at http://swap.deh.enr.state.nc.us/Swap_app/GetPWSNameForm.asp?pwsname. 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 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.

Sampling Results

Old North Utility Services, Inc., Harnett County, and Fayetteville PWC routinely monitor for contaminants in your drinking water in accordance with federal and state Laws. The table below shows only those contaminants that were detected in your drinking water. The presence of contaminants does not necessarily indicate that the water poses a health risk. The state allows 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 is included along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Old North Utility Services, Inc. NC 50-26-019		Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Alpha Emitters (pCi/L)	2007	15	0	NA	NA	0.7	NA	NA	NA	No	Erosion of natural deposits
Beta/Photon Emitters¹ (pCi/L)	2007	50	0	NA	NA	0.9	NA	NA	NA	No	Decay of natural and man-made deposits
Chloramines (ppm)	2011	[4]	[4]	2.2	0.5–3.7	NA	NA	2.88	0.90–4.03	No	Water additive used to control microbes
Chlorine (ppm)	2011	[4]	[4]	0.58	0.11–1.84	NA	NA	1.59	0.07–3.39	No	Water additive used to control microbes
Chlorine Dioxide (ppb)	2011	[800]	[800]	NA	NA	NA	NA	37.0	ND–650	No	Water additive used to control microbes
Chlorite (ppm)	2011	1	0.8	NA	NA	NA	NA	0.251	0.188–0.411	No	By-product of drinking water disinfection
Fluoride (ppm)	2011	4	4	NA	NA	0.72	0.1–1.40	0.12	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	18.48	14.1–27.8	13	10.38–15.88	18.8	15.1–24.4	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	52.75	20–94	46.03	31.62–62.25	41.2	25–58	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2011	5% of monthly samples are positive	0	1.42	NA	2.36	NA	5	NA	No	Naturally present in the environment
Total Organic Carbon [TOC] (ppm)	2011	TT	NA	NA	NA	3.04	1.00–4.10	NA	NA	No	Naturally present in the environment
Total Organic Carbon [TOC]² (removal ratio)	2011	TT	NA	NA	NA	NA	NA	1.17	1.03–1.26	No	Naturally present in the environment
Turbidity (NTU)	2011	TT=1 NTU	NA	NA	NA	0.15	0.03–0.15	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT = 95% of samples < 0.30	NA	NA	NA	100	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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045		VIOLATION	TYPICAL SOURCE		
		AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES			AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES
Copper (ppm)	2011	1.3	1.3	0.053	0/30	0.132 ³	0/30 ³	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

				Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Manganese (ppb)	2011	50	NA	<0.01	NA	12	NA	No	Leaching from natural deposits
pH (Units)	2011	6.5–8.5	NA	7.8	6.5–8.5	7.4	NA	No	Naturally occurring
Sulfate (ppm)	2011	250	NA	58.2	NA	51.1	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES

		Fayetteville PWC NC 03-26-010		Harnett County NC 03-43-045			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE	
Bromodichloromethane (ppb)	2011	13.54	10.50–16.38	NA	NA	By-product of drinking water disinfection	
Bromoform (ppb)	2011	5.89	3.13–12.29	NA	NA	By-product of drinking water disinfection	
Chlorodibromomethane (ppb)	2011	15.50	11.00–25.63	NA	NA	By-product of drinking water disinfection	
Chloroform (ppb)	2011	10.37	6.38–13.80	NA	NA	By-product of drinking water disinfection	
Sodium (ppm)	2011	43.48	NA	41.2	NA	Erosion of natural deposits; Chemical used in water treatment	

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.

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.

¹The 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.

²Depending on the TOC in our source water, the system must have a certain percent removal of TOC or must achieve alternative compliance criteria. If we do not achieve that percent removal, there is an alternative percent removal. If we fail to meet the alternative percent removal, we are in violation of a Treatment Technique.

³Sampled in 2010.