

2016 Annual Drinking Water Quality Report
Oakwood Hills Water System
PWS ID# 03-63-151

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of last year's water quality. Included are details about from where your water comes, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information, because informed customers are our best allies.

What EPA Wants You to Know

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. The Oakwood Hills Water System is 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 <http://www.epa.gov/safewater/lead>.

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants 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, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or 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 can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

When You Turn on Your Tap, Consider the Source

The water that is used by this system is purchased from the Town of Southern Pines and comes from Drowning Creek which is a sub-basin of the Lumber River.

Source Water Assessment Program (SWAP) Results

The North Carolina Department of Environment and Natural Resources (DENR), 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 Oakwood Hills Water System 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 are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating
Drowning Creek	Moderate

The complete SWAP Assessment report for the Oakwood Hills Water System may be viewed on the Web at: <http://www.deh.enr.state.nc.us/pws/swap> 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 919-715-633.

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 PCS’s in the assessment area

Violations that Your Water System Received for the Report Year

There were no violations this year.

What If I Have Any Questions Or Would Like to Become More Involved?

If you have any questions about this report or concerning your water, please contact **Steve Minks at the Pinebluff Town Hall (910) 281-3124**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held at the Town Hall on the 3rd Thursday of each month at 7:30 P. M.

Water Quality Data Table of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2016.**

The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Important Drinking Water Definitions:

Not-Applicable (N/A) – Information not applicable/not required for that particular water system or for that particular Rule.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

Maximum Residual Disinfection Level Goal – The “Level” (MRDLG) 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.

Maximum Residual Disinfection Level – The “Highest Level” (MRDL) of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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

Maximum Contaminant Level Goal - The “Goal”(MCLG) is 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.

Extra Note: MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Compound & Unit	Highest Level Allowed by Regulation (MCL)	Maximum Contaminant Level Goal (MCLG)	Maximum Detected	Range High Low	Major Source of Compound
Microbiological Contaminants January through December 2016 Annual					
Turbidity, NTU	TT= 1 NTU	N/A	0.15	0.15 0.03	Soil run off
	TT = Percentage of sample < 0.3 NTU	N/A	100%	N/A	
Inorganic Contaminants January through December 2016					
Fluoride, mg/l	4.0	4.0	1.0	1.0 0.1	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Copper, mg/l	AL=1.3	1.3	0.060 90 th Percentile	0.051 .074	July 2015 Every three years Corrosion of household plumbing system, erosion of natural deposits, leaching from wood preservatives.
Lead, mg/l	AL=0.015	N/A	0.003 90 th Percentile	0.003 0.004	Corrosion of household P;umbomg systems, erosion of natural deposits.
Total Organic Carbon (TOC) January through December 2016					

TOC Removal Ratio Treated Water	TT	N/A	1.40***	1.65 1.20	Naturally-present in the environment
Disinfectant Residential Summary			January through December 2016		
Chlorine, mg/L	MRDLG=4.0	MRDL = 4.0	2.3***	2.9 1.3	Water additive used to control microbes
Disinfectant/Disinfection By-products			January through December 2016		
Total Trihalomethane,ppb 119 Laurel Oak Lane (B02)	80	N/A	51 ppb***	26 40	By Products of Drinking water chlorination
Total Haloacetic Acid, ppb 202 N.Erfie Dr. (B01)	60	N/A	55ppb***	55 14	By product of drinking water chlorination

***Ruling by running average

In addition to the compounds listed, above the water is tested daily for the following constituents which are indicators for appearance, taste and odor.

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Compound	Annual Average
Alkalinity, mg/l	10
Color	5.9
Carbon Dioxide, mg/l	5.4
Hardness, mg/l	15.1
Iron, mg/l	0.030
Manganese, mg/l	0.021
Chloride, mg/l	10.4
Orthophosphate, mg/l	.65
PH, Standard Units	7.8 -6.2

If you have any questions about this report please call Stephen Minks at (910) 281 3124.

2016 WATER QUALITY REPORT

We routinely monitor for over 100 contaminants in the drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Compound & Unit	Highest Level Allowed by Regulation (MCL)	Maximum Contaminant Level Goal (MCLG)	Maximum Detected by Southern Pines	Range		Major Source of Compound
				High	Low	
Microbiological Contaminants January through December 2016						
Turbidity, NTU*	TT = 1 NTU	N/A	0.15	0.15	0.03	Soil run off
	TT = percentage of samples <0.3 NTU	N/A	100%			
Inorganic Contaminants January through December 2016						
Fluoride, mg/l	4.0	4.0	1.0	1.0	0.1	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Copper, mg/l (Sampled: September 2015)	AL = 1.3	1.3	0.109 90 th Percentile	0.273	<0.050	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead, mg/l (Sampled: September 2015)	AL = 0.015	0	0.004 90 th Percentile	0.007	<0.003	Corrosion of household plumbing systems; erosion of natural deposits
Total Organic Carbon (TOC) January through December, 2016						
Total Organic Carbon (TOC) Removal Ratio Treated Water**	TT	N/A	1.40***	1.65	1.20	Naturally present in the environment
Disinfectant Residual Summary January through December, 2016						
Chlorine, mg/l	MRDLG = 4.0	MRDL = 4.0	2.3***	2.9	1.3	Water additive used to control microbes
Disinfectants/Disinfection By-Products January through December, 2016						
Total Trihalomethane, ppb						By product of drinking water chlorination.
US Hwy 1 (B01)	80	N/A	10.3***	22.0	5.2	
East Rhode Island Ave Ext (B02)	80	N/A	12.8***	34.0	5.7	
US Hwy 1 (B03)	80	N/A	10.8***	26.0	4.7	
Hwy 22 (B04)	80	N/A	17.1***	32.0	9.6	
Total Haloacetic Acid, ppb						By product of drinking water chlorination.
US Hwy 1 (B01)	60	N/A	36.7***	61.8	22.4	
East Rhode Island Ave Ext (B02)	60	N/A	33.7***	67.0	18.5	
US Hwy 1 (B03)	60	N/A	31.5***	32.1	5.8	
Hwy 22 (B04)	60	N/A	5.1***	11.6	2.0	

AL = Action Level is the concentration of a contaminant which triggers a treatment or other requirement which a water system must follow.

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health.

MRDLG = Maximum Residual Disinfectant Level Goal is the level of disinfectant in drinking water below which there is no known or expected risk to health.

MRDL = Maximum Residual Disinfection Level is the highest level of a disinfectant allowed in drinking water.

mg/l = milligram per liter, or parts per million

NTU = Nephelometric Turbidity Units is a measure for water clarity

ppb = Part per billion

TT = Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

* Turbidity is the measure of the cloudiness of the water. The City monitors Turbidity because it is a good indicator of the effectiveness of our filter treatment system. The turbidity rule requires that 95% or more of the monthly samples must be below 0.3 NTU.

** Our water system used the removal of Total Organic Carbon (TOC) as the method used to comply with disinfectants/disinfection by-product treatment technique requirements. The TOC removal ratio is required to be greater than 1.0.

*** Running Annual Average