

CITY OF HIGH POINT 2016 ANNUAL DRINKING WATER QUALITY REPORT

PSWID # NC0241020

The City of High Point is pleased to present this year's Annual Drinking Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. The City of High Point has a state and federally certified testing program for your water that meets or exceeds all standards. The water is tested as it is being collected in the watershed, during the treatment process and after it is delivered to homes and businesses in our community. Those results are presented in this report.

HIGH POINT'S WATER SOURCES

High Point's water comes from a 62-square mile area known as a watershed. We do not have any large river systems, such as the Yadkin or Neuse Rivers, to rely on. In fact, we are the first to use water from the beginning, or headwaters, of the Cape Fear River system.

Our water comes from rainfall and runoff in an area roughly bordered by U.S. Highway 421 to the north (above I-40), Main Street to the southwest, N.C. Highway 66 to the west, Montlieu Avenue to the southeast and Guilford College Road to the east.

The water collects in streams that flow together into what becomes the east and west forks of the Deep River. It is then collected and stored in our two lakes, Oak Hollow and City Lake. Before we can send the water to consumers, it needs to be treated to remove contaminants it has picked up on its way to our water supply lakes.

SOURCE WATER ASSESSMENT

The N.C. Department of Environment and Natural Resources (DENR) has conducted a Source Water Assessment of our drinking water source. The purpose of the assessment was to determine the susceptibility of the drinking water source to potential contamination. The assessment reported a susceptibility rating of "moderate" for both Oak Hollow Lake and High Point City Lake. The rating does not imply poor water quality, rather, it signifies the system's potential to become contaminated. The complete report may be viewed at:

<http://www.enr.state.nc.us/flighttest/pages/swap.htm>.

AWARDS

The City of High Point Received the AWWA Water Landmark Award for the Arnold Koonce City Lake Dam. The Arnold Koonce City Lake Dam was built in 1928 and is still in service.

HOW WATER GETS TO CONSUMERS

Most of the water consumers use is pumped from City Lake and processed into drinking water at the Ward Water Plant on Pendleton Street. We have a state-of-the-art treatment facility where we remove those contaminants the water has picked up as it is collected in our watershed.

There are four basic steps to treating water. First, we add alum (aluminum sulfate), speeding the removal of most dirt and other large particulate matter. This step is known as "settling".

Once completed, water is filtered to remove smaller pieces of debris and bacteria. The water is chemically treated to kill any remaining bacteria.

Next, fluoride is added to protect teeth, and chemicals to protect pipes are included. Federal, State and local health laws require these additives during treatment. Then, water is stored. Finally, it is pumped into homes and businesses in High Point and the surrounding areas.

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SELECTED AVERAGE VALUES					
After treatment (from monthly reports to N.C. Public Water Supply)					
Ward Water Plant (Jan-Dec 2016)			PTRWA Water at Transfer Station (Jan-Dec 2016)		
Constituent	Average Found	Most Found		Average Found	Most Found
Turbidity (NTU)	0.075	0.224		0.25	0.4
Total Organic Carbon (mg/L)	2.33	2.4		1.65	2.18
Dissolved Organic Carbon (mg/L)	2.5	2.5		1.91	2.6
UV 254(m-1)	3.00	3.00		2.8	5.9
pH (std units)	8.35	8.90		8.09	8.42
Chlorine (mg/L) (Total)	3.24	3.60		3.15	3.62
Alkalinity (mg/L)	27	35		41.17	55
Hardness (mg/L)	35	41		46.5	60
Fluoride (mg/L)	0.66	0.821		0.44	0.99
Iron (mg/L)	<.01	0		0.01	0.02
Manganese (mg/L)	<.01	0.044		0.01	0.09
Sodium (mg/L)	16.60	16.60		27.12	44.1
Nitrate + Nitrate as Nitrogen (mg/L)	no data	no data		0.34	0.69
Total Phosphorus as Phosphorus (mg/L)	0.26	1.56		1.09	1.3
Total Coliform (/100ml)	<1	<1		<1	<1
Heterotrophic bacteria (/ml)				4.33	20
MICROBIOLOGICAL CONTAMINANTS IN THE DISTRIBUTION SYSTEM					
Contaminant (Units)	MCL Violation	Your water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	N	*1%	0	5% of monthly samples are positive	Naturally present
Fecal Coliform or E. Coli	N	0	0	0 (Note: the MCL is exceeded if a routine sample and repeat sample are total coliform positive, and one is also fecal or E. Coli positive)	

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Definitions	
NTU	Turbidity units, used only to define this measurement
mg/L	Milligrams per liter or parts per million (ppm)
pCi/L	picocuries per liter, used only for radioactivity measurements
<	less than
>	greater than
MCL	(Maximum Contaminant Level) The greatest amount allowed in your water by law that determines whether it is safe or not.
MCLG	(Maximum Contaminant Level Goal) This would be the ideal situation. May or may not exist, but the best achievable.
MFL	Measurable fiber length
Heterotrophic	A group of bacteria that is a general indicator of many bacteria but are not health threatening
Coliform	A group of very resistant bacteria usually associated with disease
ND	Not detected
LRAA	The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfection and Disinfection Byproducts Rule
Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow

IMPORTANT HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone 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 from their health care providers. The U.S. EPA Centers for Disease Control and Prevention (CDC) 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.

INFORMATION ON THE INTERNET

The U.S. EPA Office of Water and the CDC web sites provide a substantial amount of information on many issues related to water resources, water conservation and public health. DENR also has a web site that provides complete and current information on water issues in North Carolina, including valuable information about our watershed.

EPA: <http://water.epa.gov> | CDC: www.cdc.gov/az/w.html | NC: www.ncwater.org

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REQUIRED SAFE DRINKING WATER ACT REGULATED CONSTITUENTS TESTED OR DETECTED: JAN-DEC 2016

After treatment Ward Water Plant

After Treatment PTRWA Plant

	Constituent	Last Found	Last Tested	Last Found	Last Tested	MCL (1)	MCLG (2)	Potential Health Effect	Source
	pH (std units)	7.73	12/8/2016	8.24	12/28/2016	>6.5	no limit	None	None
	Flouride (mg/L)	0.6	12/8/2016	0.52	12/28/2016	<4	<4	Skeletal & dental fluorosis	Natural, fertilizer, aluminum industry, water treatment
	Sodium (mg/L)	16.6	12/8/2016	37.4	12/28/2016	no limit	no limit	none	none
	Sulfate (mg/L)	24	12/8/2016	50.9	12/28/2016	no limit	no limit	Diarrhea	Natural deposits, water productions
	Nitrate (mg/L)	<1.0	12/8/2016	no data		<10	no limit	Methemoglobinemia	Animal waste, fertilizer, natural deposits, septic tanks, sewage
	Nitrite (mg/L)	<0.10	12/8/2016	no data		no limit	no limit		
	Total Coliform (/100ml)					<5% of tests	none	Stomach upset	Human and animal waste
Stage 2 DBP's	Total Trihalomethanes (8 sites with a 4 quarter local running annual average) mg/L					<0.080	no limit	Cancer, suspected in premature birth	By-product of disinfecting drinking water
	B01	0.041	11/16/2016						
	B02	0.036	11/16/2016						
	B03	0.043	11/16/2016						
	B04	0.062	11/16/2016						
	B05	0.049	11/16/2016						
	B06	0.041	11/16/2016						
	B07	0.039	11/16/2016						
	B08	0.039	11/16/2016						

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After treatment Ward Water Plant		After Treatment PTRWA Plant				MCL (1)	MCLG (2)	Potential Health Effect	Source
Constituent	Last Found	Last Tested	Last Found	Last Tested					
Stage 2 DBP's	Total Haloacetic Acids (8 sites with a 4 quarter local running annual average) mg/L					<0.060	no limit	Cancer, suspected in premature birth	By-product of disinfecting drinking water
	B01	0.031	11/16/2016						
	B02	0.031	11/16/2016						
	B03	0.031	11/16/2016						
	B04	0.037	11/16/2016						
	B05	0.029	11/16/2016						
	B06	0.035	11/16/2016						
	B07	0.031	11/16/2016						
	B08	0.031	11/16/2016						
	Lead ug/L (53 samples collected)	<0.003	9/1/2015			<.015		Kidney, nervous system damage	Natural/industrial deposits, plumbing, solder, brass
	Copper ug/L (53 samples collected)	0.066	9/1/2015			<1.30		Gastrointestinal irritation	Natural/industrial deposits, wood preservatives, plumbing

CHANGES IN PROCESS

On July 25, 2011, High Point, Greensboro, Piedmont Triad Regional Water Authority, Burlington and Reidsville changed their method of disinfection from free chlorine to a two-stage process. Primary disinfection is still achieved by free chlorine, but we are now using chloramines (combined chlorine and ammonia) as our secondary disinfectant. This change is to help us comply with the Stage 2 disinfectant/disinfectant by-products rule from the EPA.

QUESTIONS ABOUT YOUR WATER?

Call the Customer Service Phone Center at 336.883.3111, 24 hours a day, seven days a week.

Published by: The City of High Point | P.O. Box 230 | High Point, NC 27261

www.highpointnc.gov

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