# City of High Point
## FRANK L. WARD WATER PLANT

# 2015 Annual Drinking Water Quality Report
January – December 2015
PSWID # NC0241020

**Is My Water Safe?**

We are 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. We are committed to providing you with information because informed customers are our best allies.

**Where does our water come from?**

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 River, to rely on. As a matter of fact, we are the first to use water from the beginning, or headwaters, of a larger river system called the Cape Fear River.

Our water comes from rainfall and runoff in an area roughly bordered by U.S. Hwy. 421 on the north (above I-40), Main Street on the southwest, N.C. Hwy. 66 on the west, Montlieu Avenue on the southeast, and Guilford College Road on 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 you, it needs to be treated to remove contaminants it has picked up on the way to our water supply lakes.

**How does the water get to you?**

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

There are four basic steps to treating water; first, we add alum (aluminum sulfate) to water, speeding the removal of most dirt and other larger 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.

**Our commitment to you**

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.

## Source Water Assessment

The NC 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

## Questions about your water?

Call the Customer Service Phone Center at (336) 883-3111, 24 hours a day, and seven days a week.

## Important Health Information

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 transplants, people with HIV/AIDS or other immune systems disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice from their health care providers. The US 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 (880) 426-4791.

## Information on the Internet

The US 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. Also, DENR 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: http://www.cdc.gov/az/w.html

NC: http://www.ncwater.org/

## Changes in Process

On July 25, 2011, the Ward Water Treatment Plant in 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 EPA.

Consumer Water Report, June, 2015
Published by the: City of High Point, PO Box 230, High Point, NC 27261
http://www.highpointnc.gov/
(336) 883-3111

*This information will be provided in an alternate format for people with visual impairments.*

# City Of High Point
## Public Services Dept.
## Consumer Confident Report 2015

**SELECTED AVERAGE VALUES**
after treatment
**( from monthly reports to N.C. Public Water Supply)**

| Constituent | Ward Water Plant (Jan-Dec 2015) Average found | Most found | PTRWA water at transfer station(Jan-Dec 2015) Average found | Most found |
|---|---|---|---|---|
| Turbidity (NTU) | 0.081 | 0.208 | 0.29 | 0.46 |
| Total Organic Carbon (mg/L) | 2.3 | 2.43 | 1.95 | 2.13 |
| Dissolved Organic Carbon (mg/L) | 1.81 | 2.3 | no data | |
| UV 254(m-1) | 5.10 | 5.80 | no data | |
| pH (std units) | 8.38 | 8.80 | 8.10 | 8.43 |
| Chlorine (mg/L) (Total) | 3.5 | 4.00 | 3.07 | 3.3 |
| Alkalinity (mg/L) | 28 | 36 | 43.18 | 47 |
| Hardness (mg/L) | 37.5 | 44 | 53.45 | 58 |
| Fluoride (mg/L) | 0.742 | 0.91 | 1.049 | 0.57 |
| Iron (mg/L) | <.06 | <.06 | <.01 | 0.03 |
| Manganese (mg/L) | <.008 | <.008 | <.01 | 0.01 |
| Sodium (mg/L) | 13.40 | 13.40 | 39.97 | 50.3 |
| Nitrate+Nitrate as Nitrogen (mg/L) | 0.151 | 0.26 | ND | ND |
| Total Phosphorus as Phosphorus (mg/L) | 0.06 | 0.19 | 1.06 | 1.14 |
| Total Coliform (/100ml) | <1.0 | 1 | <1 | <1 |
| Heterotrophic bacteria (/ml) | | | 17 | 69 |

***Definitions:***

| | |
|---|---|
| **NTU -** | turbidity units, used only to define this measerment |
| **mg/L -** | milligrams per liter or parts per million (ppm) |
| **pCi/L -** | picocurries per liter, used only for radioactivity measurements |
| **< -** | less than |
| **> -** | greater than, both ara applied to numbers to indicate a bounty such as, "The number should not exceed" or "The value cannot be measured below this number" |
| **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. This may or may not exist anywhere on earth, but it is the best we wish we could achieve. |
| **MFL -** | measurable fiber length. |
| **Heterotrophic -** | a group of bacteria that is a general indicator of many bacteria but are not health threating. |
| **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 treatmeent or other requirements which a water system must follow. |

**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 in the enivironment |
| Fecal Coliform or *E. coli* | N | 0 | 0 | 0(Note: The MCL is exceeded if a routine sample and repeat sample are total coliform postive, and one is also fecal or E. coli postive) | Human and animal fecal waster |

* Note: On 11/16/2015 a positive coliform sample was collected. All repeat samples were negative.

**Required Safe Drinking Water Act Regulated Constituents Tested or Detected - Jan - Dec 2015**

| Constituent | *After treatment Ward Water Plant* last found | Last tested | *After Treatment at the PTRWA plant* last found | Last tested | MCL(1) | MCLG(2) | Potential Health Effect | Source |
|---|---|---|---|---|---|---|---|---|
| pH (std units) | 7.81 | 12/10/2015 | 8.13 | 12/28/2015 | >6.5 | no limit | none | none |
| Fluoride (mg/L) | 0.7 | 12/10/2015 | 0.3 | 12/28/15 | <4 | <4 | Skeletal and dental fluorsis | natural, fertilizer, aluminum industry, water treatment |
| Sodium (mg/L) | 17.6 | 12/10/2015 | 21.9 | 12/28/15 | no limit | no limit | none | none |
| Sulfate (mg/L) | 24 | 12/10/2015 | 44 | 12/28/15 | no limit | no limit | diarrhea | natural deposits, water production |
| Nitrate (mg/L) | <1.00 | 12/2/2015 | 0.36 | 12/28/15 | <10 | no limit | | animal waste, fertilizer, natural deposits, septic tanks, sewage |
| Nitrite (mg/L) | <0.10 | 12/2/2015 | ND | | no limit | no limit | methemoblobulinemia | |
| Total Coliform (/100ml) | 0 | 12/31/15 | 0 | 12/28/2015 | <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 pre-mature birth | by-product of dissinfecting drinking water |
| B01 | 0.033 | 11/20/2015 | | | | | | |
| B02 | 0.035 | 11/20/2015 | | | | | | |
| B03 | 0.036 | 11/20/2015 | | | | | | |
| B04 | 0.040 | 11/20/2015 | | | | | | |
| B05 | 0.041 | 11/20/2015 | | | | | | |
| B06 | 0.035 | 11/20/2015 | | | | | | |
| B07 | 0.035 | 11/20/2015 | | | | | | |
| B08 | 0.033 | 11/20/2015 | | | | | | |
| Total Haloacetic Acids (8 sites with a 4 quarter Local Running Annual Average) (mg/L) | | | | | < 0.060 | no limit | cancer, suspected in pre-mature birth | by-product of dissinfecting drinking water |
| B01 | 0.030 | 11/20/2015 | | | | | | |
| B02 | 0.029 | 11/20/2015 | | | | | | |
| B03 | 0.027 | 11/20/2015 | | | | | | |
| B04 | 0.027 | 11/20/2015 | | | | | | |
| B05 | 0.025 | 11/20/2015 | | | | | | |
| B06 | 0.028 | 11/20/2015 | | | | | | |
| B07 | 0.028 | 11/20/2015 | | | | | | |
| B08 | 0.027 | 11/20/2015 | | | | | | |
| **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 |

* **Unregulated contaminants are those for which the 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 regulations are warranted.**

**Ward Plant**

**Unregulated Inorganic Contaminants** UCMR3

| Contaminant (units) | Sample Date | Average | Range High | Range Low |
|---|---|---|---|---|
| **Chromium-6 ug/L** | 2/15 & 5/15 | 0.041 | 0.043 | 0.039 |
| **Chlorate ug/L** | 2/15 & 5/15 | 114 | 130 | 97 |
| **Strontium ug/L** | 2/15 & 5/15 | 102 | 110 | 94 |
| **Vanadium ug/L** | 2/15 & 5/15 | 0.55 | 0.66 | 0.44 |

**Unregulated VOC Contaminant UCMR3**

| Contaminant (units) | Sample Date | | Average | Range High | Range Low |
|---|---|---|---|---|---|
| 1,4-dioxane | 8/14 | <0.07 | | | |
| | 12/14 | <0.07 | <0.07 | 0.097 | <0.07 |
| | 2/25 | 0.097 | | | |
| | 5/15 | <0.07 | | | |
| | 7/15 | <0.07 | | | |

The City of High Point disputes the 1,4-dioxane analysis of February 25, 2015. City of High Point documentation supports the sample was rejected based on contamination. Additional sampling did not detect 1,4-dioxane.

**Distribution**

**Unregulated Inorganic Contaminants** UCMR3

| Contaminant (units) | Sample Date | Average | Range High | Range Low |
|---|---|---|---|---|
| **Chromium (total) ug/L** | 2/15 & 5/15 | 0.125 | 0.25 | <0.2 |
| **Chromium-6 ug/L** | 2/15 & 5/15 | 0.053 | 0.056 | 0.049 |
| **Chlorate ug/L** | 2/15 & 5/15 | 125 | 130 | 120 |
| **Strontium ug/L** | 2/15 & 5/15 | 92 | 93 | 90 |
| **Vanadium ug/L** | 2/15 & 5/15 | 0.405 | 0.51 | 0.30 |