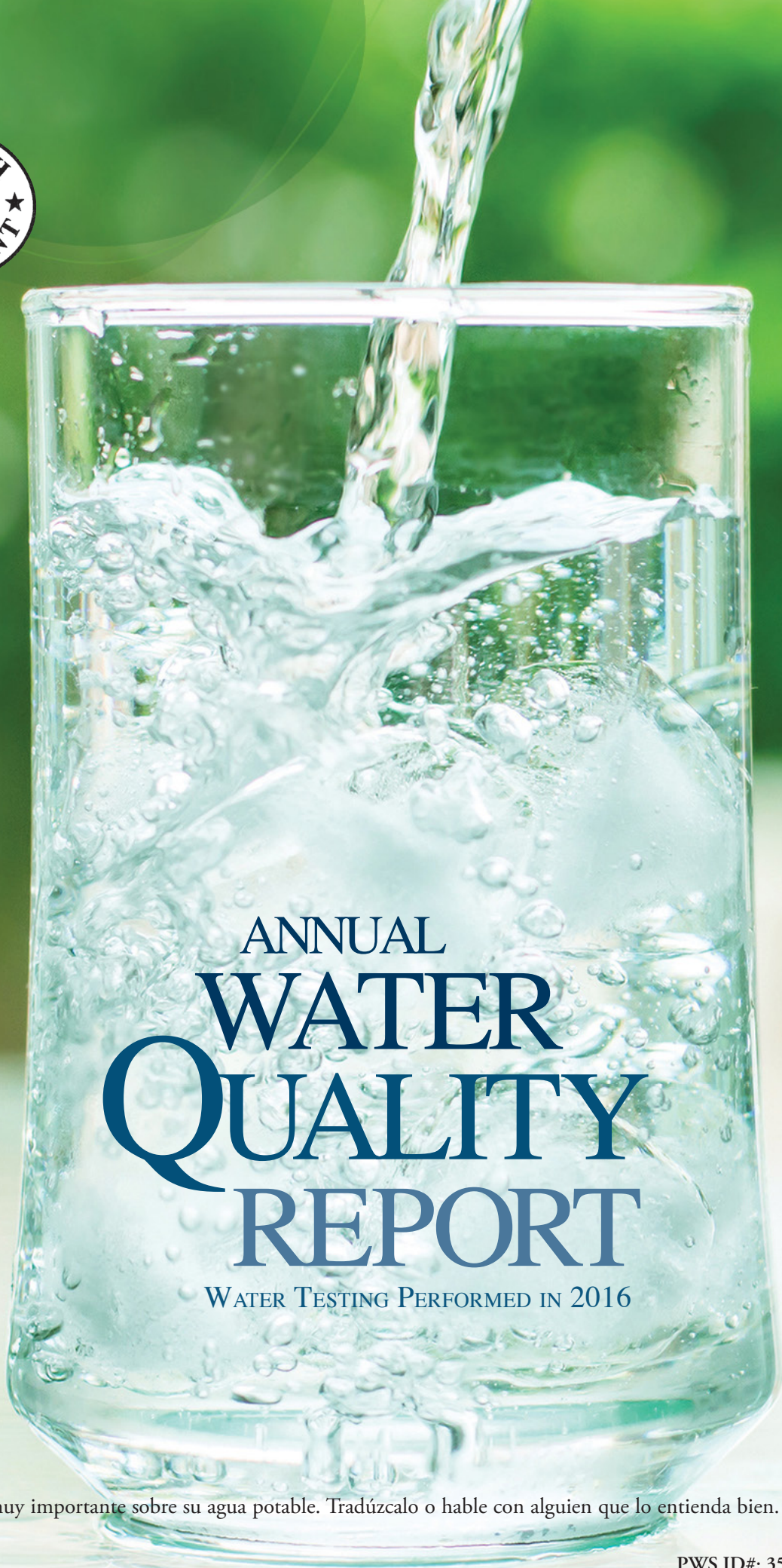


Presented By



ANNUAL  
WATER  
QUALITY  
REPORT

WATER TESTING PERFORMED IN 2016

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

## We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

## Important Health Information

Some people may be more vulnerable to disease-causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline at (800) 426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's 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](http://www.epa.gov/safewater/lead).



## Substances That Could Be in Water

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 activities. Contaminants that may be present in source water include: Microbial Contaminants; Inorganic Contaminants; Pesticides and Herbicides; Organic Chemical Contaminants; and Radioactive Contaminants.

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. In order to ensure that tap water is safe to drink, the State and the U.S. EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the U.S. FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the 2nd and 4th Mondays of each month, except in July and August when there is only one meeting. Meetings take place at 7 p.m. in the Council Chambers at City Hall, 83 Broadway, Newburgh, New York. For more information concerning City Council meetings, contact the Executive Office at (845) 569-7301. There is always an open forum to express your opinions and ideas. Visit the website at [www.cityofnewburgh-ny.gov](http://www.cityofnewburgh-ny.gov).

## Where Does My Water Come From?

Our water source originates from the Washington Lake and the Silver Stream Reservoirs.

When these two sources are not available, the tap on the NYC Catskill Aqueduct can be used as an emergency supply. The City of Newburgh Water Department is currently one of our emergency sources of water, which is the NYC Catskill Aqueduct. The water quality of these supplies is excellent and meets all New York State Department of Health (NYS DOH) standards.



## How Is My Water Treated and Purified?

After the water is withdrawn from the reservoir or aqueduct, this water undergoes several chemical and physical processes to ensure that potential contaminants are removed and the water is clean and safe for your needs prior to distribution. The City's water filtration plant has the ability to treat approximately 9 million gallons of water per day, more than two times our average daily consumption. The plant also uses a series of mechanical and chemical treatments to remove color, odor, and tastes, along with organic material, dirt, and particles. The water then passes through a series of sand filters; chlorine is added for disinfection; fluoride is added to help promote sound dental health; and corrosion inhibitors are added to reduce the corrosive effects of water on pipes and plumbing. The water is then pumped to underground and above-ground storage tanks and into your home or business.

### Facility Modification/System Improvements



The Water Department Employees performed a variety of maintenance tasks associated with the elements of a well-operated and properly maintained water system. We flush the entire water system twice during the year and continue with repairing and replacing fire hydrants and valves. Through our leak detection survey we detected 51 leaks and we repaired the majority of those with only six left to repair. We continue with repairing and replacing water meters and the newest radio reading devices, which once completed, we will have the capability to have real-time data through satellite capability. Water Department staff installed the remaining three flocculators that will help with mixing speeds and, with that, produce a better product.

A direct connection to Catskill Aqueduct from our Brown's Pond pump station was constructed and completed.

A new state-of-the-art granular-activated carbon (GAC) filtration system is being constructed here at the City of Newburgh Filtration Plant that will remove contaminants from Washington Lake, including PFOS due to go on line by the fall of 2017.

### Fluoridation of Our Water

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 ppm. To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 ppm. During the reporting year 2016, monitoring showed fluoride levels in your water were within 0.1 ppm of the target level 100% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 ppm MCL for fluoride.

### Source Water Assessment

The NYS DOH has evaluated our susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. These assessments were created using available information; they estimate only the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur. We provide treatment and regular monitoring to ensure that the water delivered to customers meets all applicable standards.

The analysis of available information for this source water assessment did not find any significant sources of contamination in the watershed. Statewide and local databases of permitted facilities were used to identify discrete potential sources of contamination. No discrete sources were identified within the assessment area. Land use within the watershed was evaluated by contaminant category to rate the likely prevalence of contamination associated with the land use.

The contaminant category rating for land use types were determined to be "medium" for microbial contamination due to agricultural practices in the watershed. The overall susceptibility of this watershed to potential sources of contamination was found to be "medium" for microbial contamination. A copy of the assessment, including a map of the area, can be obtained by contacting us, as noted in the report.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Mr. Wayne Vradenburgh, Superintendent of Water, at (845) 565-3356. You may also contact the Orange County Department of Health at (845) 291-2331.

## About Our Violations

We received two Notices of Violation for providing inadequate Disinfection Byproduct Precursor Removal for the months of January and March in 2016. We returned to compliance in April 2016. We switched to our alternate sources of water, first Browns Pond and then to the Catskill Aqueduct, which alleviated the violation. Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer.

We also received five Notices of Violation for providing inadequate disinfectant residual on at least one day in each of the following months in 2016: January, February, March, April, and May. We returned to compliance in June 2016, and a new 1.2 million gallon tank to assure adequate disinfectant residual was completed and placed into service in February 2017.

We also received two Notices of Violation in 2016 for exceeding the THMs Locational Running Annual Average (LRAA) Maximum Contaminant Level (MCL). We exceeded the MCL at one site in the first quarter of 2016 and at two sites in the second quarter of 2016. The test dates, location, and LRAA results were: January 21, Brady Avenue Tank, 94 UG/L; April 13, Brady Avenue Tank, 97 UG/L; April 13, 124 Grand Street, 84 UG/L. Compare these values to the THM LRAA MCL of 80 ug/l. We completed the installation of equipment to remedy the problem at that location in October 2015 and returned to compliance in the third quarter of 2016. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

## Water Conservation Tips

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.



## Facts and Figures

Our water system serves approximately 29,000 people through 5,675 service connections. We have more than 73 miles of water mains ranging from 4 inches in diameter all the way up to 30 inches in diameter. More than 800 fire hydrants and approximately 3,500 gate valves are used to turn off water mains in cases of water main breaks or other emergency situations. The total water produced in 2016 was approximately 1.6 billion gallons. The daily average of water treated and distributed was 4.7 million gallons, and the highest single day was 5.2 million gallons. The amount of water delivered to customers was approximately 680 million gallons. The difference between the water produced and the water delivered can be attributed to several factors including, but not limited to, main flushing, firefighting, leaks, unauthorized use, and other non-metered uses. For the last 18 years, the City's Water Department has conducted a citywide leak detection survey. The leak survey is conducted on a yearly basis, and, by repairing the leaks found, it prevents wasted water from leaks and helps continue our efforts to keep costs down for our customers.

## Water Source Restriction

On May 2, 2016, Newburgh City Manager Michael Ciaravino declared a state of emergency as test results showed levels of PFOS (perfluorooctanesulfonic acid) in our primary drinking water reservoir Lake Washington. Immediately, Water Department Staff removed Washington Lake from service and the City began receiving its water from our emergency sources, Brown's Pond and the Catskill Aqueduct. The City of Newburgh Water Department has been receiving its water from the Catskill Aqueduct since June 7, 2016.

## Additional Sampling For City of Newburgh (NY3503549)

SUBSTANCES	MRL	RAW WATER	FINISHED WATER	DISTRIBUTION SYSTEM
<b>UCMR-3 SAMPLE RESULTS</b>				
Sample dates: 12/30/13, 4/15/14, 6/2/14, 9/17/14 & 10/21/14.				
<b>Raw Source: Washington Lake</b>				
Chlorate	20 ppb	Not Required	97.1 ppb - 179 ppb	83 ppb - 217 ppb
Chromium	200 ppt	Not Required	< 200 ppt - 220 ppt	< 200 ppt - 310 ppt
Chromium-6 (Hexavalent)	30 ppt	Not Required	46 ppt - 65 ppt	47 ppt - 81 ppt
Strontium	0.3 ppb	Not Required	140 ppb - 155 ppb	139 ppb - 175 ppb
Perfluorobutanesulfonic acid (PFBS)	90 ppt	Not Required	< 90 ppt	Not Required
Perfluorohexanesulfonic acid (PFHxS)	30 ppt	Not Required	57 ppt - 70 ppt	Not Required
Perfluoroheptanoic acid (PFHpA)	10 ppt	Not Required	17 ppt - 21 ppt	Not Required
Perfluorooctanoic acid (PFOA)	20 ppt	Not Required	< 20 ppt	Not Required
Perfluorooctanesulfonic acid (PFOS)	40 ppt	Not Required	140 ppt - 170 ppt	Not Required
Perfluorononanoic acid (PFNA)	20 ppt	Not Required	<20 ppt	Not Required
<b>2016 NYSDOH PFC SAMPLE RESULTS</b>				
Sample date: 3/31/16				
<b>Raw Source: Washington Lake</b>				
Perfluorobutanesulfonic acid (PFBS)	2 ppt	20.9 ppt	22.8 - 23.3 ppt	NA
Perfluorohexanesulfonic acid (PFHxS)	2 ppt	71.4 ppt	70.9 - 75.6 ppt	NA
Perfluoroheptanoic acid (PFHpA)	2 ppt	21.6 ppt	22.4 ppt	NA
Perfluorooctanoic acid (PFOA)	2 ppt	27.7 ppt	28.0 - 28.3 ppt	NA
Perfluorooctanesulfonic acid (PFOS)	2 ppt	155 ppt	146 - 148 ppt	NA
Perfluorononanoic acid (PFNA)	2 ppt	5.7 ppt	5.5 - 5.6 ppt	NA
<b>2016 NYSDOH PFC SAMPLE RESULTS</b>				
Sample date: 5/4/16				
<b>Raw Source: Browns Pond</b>				
Perfluorobutanesulfonic acid (PFBS)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorohexanesulfonic acid (PFHxS)	2 ppt	< 2 ppt	< 2 - 2.15 ppt	NA
Perfluoroheptanoic acid (PFHpA)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorooctanoic acid (PFOA)	2 ppt	2.27 - 2.35 ppt	4.06 - 4.25 ppt	NA
Perfluorooctanesulfonic acid (PFOS)	2 ppt	2.38 - 2.52 ppt	7.09 - 8.44 ppt	NA
Perfluorononanoic acid (PFNA)	2 ppt	< 2 ppt	< 2 ppt	NA
<b>2016 NYSDOH PFC SAMPLE RESULTS</b>				
Sample date: 5/11/16				
<b>Raw Source: Browns Pond</b>				
Perfluorobutanesulfonic acid (PFBS)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorohexanesulfonic acid (PFHxS)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluoroheptanoic acid (PFHpA)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorooctanoic acid (PFOA)	2 ppt	2.04 ppt	2.07 - 2.19 ppt	NA
Perfluorooctanesulfonic acid (PFOS)	2 ppt	< 2 ppt	2.33 - 2.50 ppt	NA
Perfluorononanoic acid (PFNA)	2 ppt	< 2 ppt	< 2 ppt	NA
<b>2016 NYSDOH PFC SAMPLE RESULTS</b>				
Sample date: 6/16/16				
<b>Raw Source: Catskill Aqueduct</b>				
Perfluorobutanesulfonic acid (PFBS)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorohexanesulfonic acid (PFHxS)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluoroheptanoic acid (PFHpA)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorooctanoic acid (PFOA)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorooctanesulfonic acid (PFOS)	2 ppt	< 2 ppt	< 2 ppt	NA
Perfluorononanoic acid (PFNA)	2 ppt	< 2 ppt	< 2 ppt	NA

## Non-detected Substances

Following is a list of regulated potential drinking water contaminants that the City of Newburgh tested for but did not detect.

Alachlor; Atrazine; gamma-BHC (Lindane); Butachlor; Chlordane; Dieldrin; Endrin; Picloram; 2,4,5-TP (Silvex); Aidicarb; Aidicarb sulfone; Aidicarb sulfoxide; Carbofuran; 3-Hydroxycarbofuran; Methomyl; Oxamyl; 4-Chlorotoluene; Dibromomethane; 1,2-Dichlorobenzene; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; Dichlorodifluoromethane; 1,1-Dichloroethane; 1,2-Dichloroethane; Toluene; 1,2,3-Trichlorobenzene; Trichlorofluoromethane; 1,2,3-Trichloropropane; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; Arsenic; Chromium; Zinc; Heptachlor; Heptachlor epoxide; Hexachlorobenzene; Methoxychlor; Metolachlor; PCB, Total; Propachlor; Carbaryl; Aldrin; Benzo(a) pyrene; bis(2-Ethylexyl)adipate; bis(2-Ethylexyl)phthalate; Metribuzin; Benzene; Bromobenzene; Bromochloromethane; cis-1,2-Dichloroethane; trans-1,2-Dichloroethane; 1,2-Dichloropropane; 1,3-Dichloropropane; 2,2-Dichloropropane; 1,1-Dichloropropane; cis-1,3-Dichloropropane; trans-1,3-Dichloropropane; Tetrachloroethane; 1,2,4-Trichlorobenzene; Trichloroethane; m-Xylene & p-Xylene; o-Xylene; Methyl-tert-butyl ether; Beryllium; Antimony; Selenium; Simazine; Toxaphene; 2,4-D; Dalapon; Dicamba; Dinoseb; Pentachlorophenol; Bromomethane; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Carbon tetrachloride; Chlorobenzene; Chloroethane; Chloromethane; 2-Chlorotoluene; Ethylbenzene; Hexachlorobutadiene; Isopropylbenzene; p-Isopropyltoluene; Methylene Chloride; n-Propylbenzene; Styrene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Vinyl Chloride; Iron; Silver; Cadmium; Thallium; Gross Alpha; Radium 226; Radium 228; Total Uranium; Nitrate.

## Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring 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 Rule (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. Contact us for more information on this program.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	05/04/2016	2	2	0.01	NA	No	Erosion of natural deposits
Chloride (ppm)	05/04/2016	250	NA	0.063	NA	No	Indicative of road salt contamination
Fluoride (ppm)	01/26/2016	2.2	NA	1.09	0.32–1.09	No	Water additive that promotes strong teeth
Haloacetic Acids (ppb)	2016 Quarterly	60	NA	42	12.74–82.85	No	By-product of drinking water disinfection needed to kill harmful organisms
Sodium (ppm)	05/04/2016	see footnote 1	NA	33.2	NA	No	Road salt
Sulfate (ppm)	4/23/2015	250	NA	16.8	NA	No	Naturally occurring
TTHMs [Total Trihalomethanes]–Brady Avenue Tank (ppb)	2016 Quarterly	80	NA	94	28–106	Yes	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
TTHMs [Total Trihalomethanes]–Brady Avenue Tank (ppb)	2016 Quarterly	80	NA	97	NA	Yes	
TTHMs [Total Trihalomethanes]–Grand Street (ppb)	2016 Quarterly	80	NA	84	NA	Yes	
Total Organic Carbon (removal ratio)	2016	1.00	NA	1.09	0.82–1.38	No	Naturally occurring
Turbidity [Distribution System] <sup>2</sup> (NTU)	01/2016	TT	NA	0.46	0.14–0.46	No	Soil runoff
Turbidity <sup>3</sup> (NTU)	December 2016	TT	NA	0.28	0.02–0.28	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	December 2016	TT = 95% of samples meet the limit	NA	100%	NA	No	Soil runoff

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

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	8/26/2016	1.3	1.3	0.275	0.016–0.865	0/60	No	Corrosion of household plumbing systems
Lead (ppb)	8/20/2016	15	0	5.82	<1.0–153	4/60	No	Corrosion of household plumbing systems

### OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Nickel (ppm)	05/04/2016	NA	NA	0.001	NA	No	Naturally occurring

<sup>1</sup>Water containing more than 20 ppm of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 ppm of sodium should not be used for drinking by people on moderately restricted sodium diets.

<sup>2</sup>Turbidity is a measure of the cloudiness of the water. It is tested because it is a good indicator of the effectiveness of the filtration system. The highest measurement of the monthly average distribution results for the year occurred as indicated in the table above. Five samples collected per week, averaged for the month and compared to the MCL; here we report the highest monthly average for the year.

<sup>3</sup>Turbidity is a measure of the cloudiness of the water. It is tested because it is a good indicator of the effectiveness of the filtration system. Our highest single turbidity measurement for the year occurred as indicated in the table above. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. (Note that TT is dependent upon filtration method: conventional, 0.3 NTU; slow sand, 1.0 NTU; or diatomaceous earth filtration, 1.0 NTU.) All results were within the acceptable range allowed and did not constitute a treatment technique violation.

## Definitions

**90th percentile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

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

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as highest LRAAs.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as possible.

**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.

**MRL (Method Reporting Limit):** The minimum concentration of a contaminant that can be reported with a specified degree of confidence.

**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.

**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).

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms 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.