



Presented By
**Town of Newburgh
Consolidated Water District**



ANNUAL
WATER
QUALITY
REPORT 1 PERFORMED IN 2014

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water.

Important Health Information

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised 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.

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

If you would like to learn more about your drinking water, please attend any of our regularly scheduled Town Board meetings. A schedule of meetings is available from the Town Clerk's Office, 1496 Route 300, Newburgh, NY; (845) 564-4554.

Where Does My Water Come From? he

Town utilizes two sources of water: Chadwick Lake Reservoir and New York City DEP's Delaware Aqueduct. The Chadwick Lake Filter Plant has the capacity to treat 3.2 million gallons of water per day. The Delaware Aqueduct supply is taken from New York City's Delaware Watershed, which comprises four large reservoirs in the Catskill region. The Delaware Aqueduct Facility has the capacity to supply 6 million gallons of water per day. A new filtration plant for the Delaware source went on-line in November 2013.

Water Treatment Process

The Town utilizes two separate water sources, which are blended in our distribution system. At the Chadwick Lake Filtration

Plant, water is drawn from the reservoir and a chemical is added for coagulation. This process causes small particles to adhere to one another, forming what is called a floc. As this floc grows larger, it becomes heavier and settles into a basin, from which sediment is removed. The water is then processed through sand filters, producing a crystal clear effluent. Chemicals for pH adjustment and corrosion control are added at this point. Finished water can then pass through an additional filtration process for the removal of iron and manganese, as necessary. The water from our Delaware Aqueduct facility is purchased from New York City DEP. At our new state-of-the-art filtration plant for the Delaware source, water is filtered through a membrane barrier, then chemically treated for pH and corrosion control. Sodium hypochlorite is added to both drinking water sources as a disinfectant. The water is fluoridated at both facilities for consumer dental health protection.

Facts and Figures

Our water system serves 22,800 customers through of water produced in 2014 was 1.1 billion gallons. The into the distribution system was 3.0 million gallons per day. The 7,500 gallons used, \$2.95/1,000 gallons for the next 10,000 gallons used and \$5.80/1,000 gallons thereafter. The minimum



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. During the reporting year monitoring showed fluoride levels in your water were in the optimal range 63 % of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 ppm MCL for fluoride.

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:

- Only run your dishwasher on a full load.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks.
- 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.
- 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.

Emergency Response Plan

The Town of Newburgh Consolidated Water District was issued a Notice of Violation for failure to submit an Emergency Response Plan by March 2013 as required for compliance with the NY State Sanitary Code.

The Emergency Response Plan is being prepared and will be submitted, upon completion, to the Orange County Department of Health.

QUESTIONS?

Source Water Assessment

The NYS DOH has evaluated the Town of Newburgh Consolidated Water District's (TONCWD) susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraphs below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this water district. The TONCWD provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted in this report.

Chadwick Lake Reservoir Assessment Summary

This assessment found an elevated susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area do not increase the potential for contamination. Nonsanitary wastewater discharges may also contribute to contamination. There are no noteworthy contamination threats associated with other discrete contaminant sources. Additional sources of potential contamination include a roadway.

Delaware Aqueduct Source Water Assessment Summary

The TONCWD also obtains water from the New York City water supply system. Water comes from the Delaware watershed west of the Hudson River. The SWAP methodologies applied to the rest of the state were not applied to the Delaware Aqueduct Source. Additional information on the water quality and protection efforts in these New York City watersheds can be found at DEP's web site at www.nyc.gov/html/dep/html/watershed_protection/index.shtml.

Nondetected Contaminants

Following is a list of contaminants that we tested for but did not detect in our water supply.

F Inorganics: Antimony, Arsenic, Asbestos, Beryllium, Bromate, Cadmium, Chlorite, Cyanide, Iron, Mercury, Selenium, Silver, Thallium, Uranium, Zinc

Volatile Organics: Benzene; Bromobenzene; Bromomethane; n-Butylbenzene; sec-Butylbenzene; tert-Butylbenzene; Bromochloromethane; Carbon Tetrachloride; Chloroethane; Chloromethane; 2-Chlorotoluene; 4-Chlorotoluene; Dibromomethane; 1,2-Dichlorobenzene; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; Dichlorodifluoromethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethene; cis-1,2-Dichloroethene; trans-1,2-Dichloroethene; 1,2-Dichloropropane; 1,3-Dichloropropane; 2,2-Dichloropropane; 1,1-Dichloropropene; cis-1,3-Dichloropropene; trans-1,3-Dichloropropene; Ethylbenzene; Hexachlorobutadiene; Isopropylbenzene; p-Isopropyltoluene; Methylene Chloride; n-Propylbenzene; Styrene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethene; Toluene; 1,2,4-Trichlorobenzene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethane; Trichlorofluoromethane; 1,2,3-Trichloropropane; 1,2,4-Trimethylbenzene; 1,3,5-Trimethylbenzene; o-Xylene; m-Xylene; p-Xylene; Xylene, Total; MTBE; Vinyl chloride

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor 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 Regulation (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.

REGULATED SUBSTANCES

			Town of Newburgh Consolidated Water District			Chadwick Lake			Delaware Aqueduct				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2	2	NA	NA	NA	11-13-14	0.0052	NA	11-13-14	0.035	NA	No	Erosion of natural deposits
Chloride (ppm)	250	NA	NA	NA	NA	11-20-14	71	NA	11-20-14	11	NA	No	Naturally occurring
Color (Units)	15	NA	NA	NA	NA	11-20-14	5.00	NA	NA	NA	NA	No	Natural color may be caused by decaying leaves, plants, and soil organic matter
Fluoride (ppm)	2.2	NA	NA	NA	NA	11-13-14	0.58	NA	11-13-14	0.71	NA	No	Water additive that promotes strong teeth
Haloacetic Acids–Stage 1 (ppb)	60	NA	Quarterly 2014	46	10–92.6	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	NA	NA	NA	NA	NA	NA	7-17-14	0.34	NA	No	Erosion of natural deposits
Odor (TON)	3	NA	NA	NA	NA	11-20-14	1.0	NA	NA	NA	NA	No	natural sources
Sodium (ppm)	(see footnote #1)	NA	NA	NA	NA	11-20-14	34	NA	11-20-14	7.2	NA	No	Naturally occurring
Sulfate (ppm)	250	NA	NA	NA	NA	11-20-14	6.9	NA	11-20-14	5.1	NA	No	Naturally occurring
TTHMs [Total Trihalomethanes]–Stage 1 (ppb)	80	NA	Quarterly 2014	52	26–81	NA	NA	NA	NA	NA	NA	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter
Total Coliform Bacteria (# positive samples)	Two or more positive samples	0	7-1-14, 10-30-14	1	NA	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity (NTU)	TT	NA	NA	NA	NA	6-2-14	0.40 ²	0.00–0.40	4-22-14	0.18 ²	0.02–0.18	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT=95% of sample <0.3 NTU	NA	NA	NA	NA	June	99	NA	2014	100	NA	No	Soil runoff
Zinc (ppm)	5	NA	NA	NA	NA	NA	NA	NA	11-20-14	0.055	NA	No	Naturally occurring

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

SUBSTANCE (UNIT OF MEASURE)	AL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE)	RANGE LOW-HIGH	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	1.3	July, August 2014	0.54	0.029–0.75	0/30	No	Corrosion of household plumbing systems
Lead (ppb)	15	0	July, August 2014	4.9	1.0–17.0	1/30	No	Corrosion of household plumbing systems

Nickel (ppb) 11-13-14 0.95 NA

SUBSTANCE (UNIT OF MEASURE) DATE SAMPLED AMOUNT DETECTED RANGE LOW-HIGH

SUBSTANCE DATE AMOUNT RANGE

(UNIT OF MEASURE) SAMPLED	DETECTED	LOW-HIGH	Chromium [total] (ppb)
12/17/2014	0.23	NA	
Chlorate (ppb)	12-17-14	183	Chromium-6 (ppb)
Strontium (ppb)	12-17-14	100	NA
Vanadium (ppb)		12-17-14	0.27
			NA

¹Water 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.

²Turbidity 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.) Although the month as indicated in the Date column above was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded 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.

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.