

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020

Presented By

**The Village of
Cornwall-on-Hudson
James A. Gagliano, Mayor**





Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. We remain committed to delivering the best-quality drinking water possible. We remain vigilant in meeting the challenges we face on a daily basis. Source water protection, water conservation, community outreach and education continue to be a priority. Thank you for allowing us the opportunity to serve you and your family. It is a responsibility we do not take lightly.

As always, we encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Source Water Assessment

The New York State Department of Health (NYSDOH) has evaluated the susceptibility of water supplies statewide to potential contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraphs below. The SWAP findings provide resource managers with additional information for protecting source waters into the future. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination, it does not mean that the water delivered to consumers is or will become contaminated. This Public Water Supply (PWS) provides treatment and regular monitoring of all sources to ensure the water delivered to consumers meets all applicable standards.

As mentioned below, this PWS obtains water from the Catskill Aqueduct and the Taylor Road Wellfield. The Catskill Aqueduct water comes from the Catskill watershed west of the Hudson River. The reservoirs in this mountainous rural area are relatively deep with little development along their shorelines. The main water quality concern associated with land cover is agriculture, which can contribute microbial contaminants, pesticides, and algae-producing nutrients. There are also some potential contamination concerns associated with residential lands and associated wastewater discharges. However, advanced treatments that reduce contaminants are in place for most of these discharges. There are also a number of other discrete facilities, such as landfills, chemical bulk storage sites, and so forth, that have the potential to impact local water quality, but large significant water quality problems associated with these facilities are unlikely due to the size of the watershed and surveillance/management practices. The New York City Department of Environmental Protection (DEP) implements a series of programs to evaluate and protect source water quality within these watersheds. Additional information can be found at the DEP's website www.nyc.gov/dep/watershed.

Groundwater from the Taylor Wellfield is rated as having a "medium" to "very high" susceptibility to microbials, nitrates, industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of State Pollutant Discharge Elimination System–permitted discharge facilities (commercial and/or industrial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and previous detections of some contaminants. In addition, the wells draw from a confined aquifer with overlying soils that may not provide adequate protection from potential contamination. Copies of the SWAP evaluations, including maps of the assessment areas, can be obtained by contacting us, as noted in this report.

Community Participation

We invite you to be informed about the water you drink, cook, and bathe with by attending any of our regularly scheduled meetings held once a month on the third Monday at 7:00 p.m. at the Village Hall, 325 Hudson Street, Cornwall-on-Hudson, NY.

Where Does My Water Come From?

In 2020, we obtained water from our Taylor Road Wellfield in the Mountainville section of the Town of Cornwall, and the New York City Catskill Aqueduct, which has its water supplied from the NYC Ashokan Reservoir in Ulster County.

Our Water System at a Glance

Our dedicated team of water professionals provides a safe and adequate supply of water to our 9,700 consumers on a daily basis through over 2,500 service connections.

Our water system consists of three water treatment facilities capable of producing 3.9 million gallons of water per day, one 500,000-gallon water storage tank, 325 fire hydrants, over 14 acres of watershed property, 28 pressure-reducing valves, and three additional storage buildings.

Between January 1, 2020, and December 31, 2020, our system produced 287,637,000 gallons of water. This represents a daily average of 785,893 gallons. Of this, approximately 502,972 was billed directly to our consumers, leaving 36.6% of our daily water production as "unaccounted for." This unaccounted for water is used for firefighting purposes, street and sewer cleaning equipment, distribution system leaks, and non-metered municipal properties.

The 2020 billing rate was \$12.00 per 1,000 gallons for customers in the Village, and \$16.00 for customers outside the Village.

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 that 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.

Facility Modification/System Improvements

During the year 2020, our team installed two water meter gateways that allow our staff to remotely monitor the meters in real time and be alerted to any possible water leaks. Early notification of water leaks helps both the Village and our consumers conserve water and save money.

Also in 2020, we completed Phase 1 of the Taylor Road Wellfield improvement project. This phase consisted of doubling the daily production capacity of this water source from one million gallons of water per day to two million gallons per day.

Phase 2 of the improvement project will be completed during 2021 with the installation of a Supervisory Control and Data Acquisition (SCADA) system for the well facility. Once completed, this will enable our water professionals to remotely and continuously monitor the quality of the water we deliver to our consumers.

Additional Monitoring

In June 2020, as a precaution, we tested drinking water from our South Well #1 and North Well #2 at the Taylor Road Wellfield for perfluoroalkyl substances (PFAS). PFOS was detected in our finished water, ranging from 1.85 ppt - 2.22 parts per trillion (ppt). This level is well below the U.S. Environmental Protection Agency (EPA) lifetime health advisory level (HAL) of 70 ppt for PFOA and PFOS combined, as well as the newly adopted NYS Department of Health Maximum Contaminant Level (MCL) of 10 ppt for PFOA and 10 ppt for PFOS.

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.

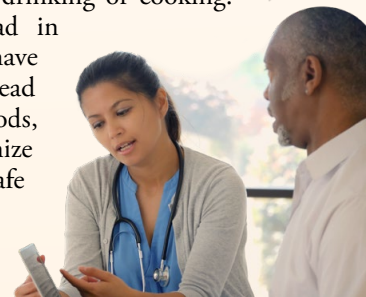
If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in

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.

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We remain vigilant in
delivering the best-quality
drinking water

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QUESTIONS?

For more information about this report or for any questions, you may contact our Water Superintendent, Michael P. Trainor Sr., at (845) 534-4200, ext. 318, or by email at watersupt@cornwall-on-hudson.org. You may also call the Orange County Health Department at (845) 291-2331.

Test Results

Our water is monitored for many different substances on a very strict sampling schedule and must meet specific health standards. The table below shows only those substances that were detected in our water (a complete list of all our analytical results is available upon request). Please keep in mind that detecting a substance does not mean the water is unsafe to drink. We strive to provide our customers with safe drinking water that meets or exceeds health standards issued by our partners at the state and federal 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.

REGULATED SUBSTANCES										
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	NYC DEP Catskill Aqueduct-TP003			Taylor Road Wellfield-TP002			VIOLATION	TYPICAL SOURCE
			DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		
1,4-Dioxane (ppb)	1	NA	11/2/2020	ND	NA	November 2020	ND	NA	No	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites
Barium (ppm)	2	2	07/20/2020	0.0097	NA	06/05/2018	0.010	NA	No	Erosion of natural deposits
Haloacetic Acids [mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid] (ppb)	60	NA	Quarterly 2020	3.7 ³	ND-6.4	NA	NA	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Nitrate (ppm)	10	10	04/13/2020	0.12	NA	04/13/2020	0.58	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Perfluorooctanesulfonic Acid (PFOS) (ppt)	10	NA	11/2/2020	ND	NA	November 2020	NA	3.16-5.76	No	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid (PFOA) (ppt)	10	NA	11/2/2020	ND	NA	November 2020	NA	4.13-5.25	No	Released into the environment from widespread use in commercial and industrial applications
Sulfate (ppm)	250	NA	07/20/2020	10.0	NA	06/05/2018	0.014	NA	No	Naturally occurring
Total Trihalomethanes [TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform] (ppb)	80	NA	Quarterly 2020	12.0 ³	6.0-20	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
Turbidity [Distribution System] (NTU)	TT	NA	Daily 2020	0.30 ¹	0.17-0.30	NA	NA	NA	No	Soil runoff
Turbidity (NTU)	TT	NA	Every 4 Hours 2020	0.21 ²	0.02-0.21	NA	NA	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	TT = 95% of samples meet the limit	NA	Every 4 Hours 2020	100	NA	NA	NA	NA	No	Soil runoff

Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community

SUBSTANCE (UNIT OF MEASURE)	AL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH %ILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	1.3	June 2020	0.59	0.035-1.3	0/28	No	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	15	0	June 2020	1.90	ND-8.6	0/28	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

NYC DEP Catskill Aqueduct-TP003		Taylor Road Well Field-TP002					
SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Nickel (ppb)	07/20/2020	ND	NA	06/05/2018	0.68	NA	Nickel is a natural element of the earth's crust; therefore, small amounts are found in food, water, soil, and air
Total Organic Carbon [TOC] (ppm)	Monthly 2020	2.1 (max)	1.2-2.1	NA	NA	NA	Naturally occurring in the environment

¹Turbidity 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.

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 on 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.

³This represents the highest locational running annual average (LRAA) calculated from data collected.

Non-detected Contaminants

In accordance with New York State regulations, we routinely monitor your drinking water for various contaminants. The contaminants detected in your drinking water are tabulated in the Test Results section. Contaminants that were tested for, but not detected, include: total coliform bacteria, arsenic, beryllium, cadmium, chromium, cyanide, mercury, selenium, thallium, fluoride, iron, manganese, volatile organic compounds, and radiological and synthetic organic compounds.

How Is My Water Treated and Purified?

Our Taylor Road well water is treated solely for disinfection using sodium hypochlorite (chlorine) before being pumped into the distribution system.

Water supplied by the NYC Catskill Aqueduct is treated at our Catskill Filter Plant, a conventional filtration plant. Initially, the water is treated utilizing aluminum sulfate as a coagulant to aid in filtration of suspended solids, and sodium hypochlorite for disinfection. It then passes through a flash mixer and flocculator on its way to a settling tank where larger particles settle out. The water then enters three filter beds where much smaller particles are filtered out. Prior to leaving the plant, the water is again treated with sodium hypochlorite for disinfection, sodium hydroxide for pH control, and zinc-orthophosphate for corrosion control.



Definitions

90th %ile: 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.

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.

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).

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

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 can 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.