

Annual
WaterQualityReport
Water testing performed in 2010



Presented By _____
Croton on Hudson

PWS ID#: 5903425

Quality First

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with high-quality drinking water.

Where Does My Water Come From?

The Village of Croton-on-Hudson's main water source is a well system located in the Croton River Valley, downstream from the New Croton Dam. Water is pumped directly from the well field into the distribution system, which consists of a network of water mains, four storage tanks (reservoirs), control valves, booster pump stations, hydrants, and other water-related infrastructure. The Village's total distribution system storage capacity is 2.3 million gallons. Most residents receive water from the municipal water system; the remainder use private wells, which are not covered by this report. In the summer of 2010, drought restrictions were put into effect to conserve 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 providers 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 or visit <http://water.epa.gov/drink/hotline>.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Facts and Figures

The water system supplies approximately 7,700 people, primarily in residences but also in businesses and industries, through approximately 2,500 service connections. During 2010, the total amount of water withdrawn from the aquifer was approximately 371 million gallons. The daily average volume of water treated and pumped into the distribution system was 1 million gallons per day. Approximately 96% of the total water produced was billed directly to consumers. The balance, or unaccounted-for water, was used for firefighting, hydrant use, distribution system leaks, and unauthorized use. The 2010 billing charge has six tiers. Tier 1, which is base service up to 6,700 gallons, is a base rate of \$38.76 per billing cycle. Tier 2, which is 901 to 100,000 cubic ft. per year, is \$6.02 per 1,000 gallons. Tier 3, which is 100,001 to 500,000 cubic ft. per year, is \$6.62 per 1,000 gallons. Tier 4, which is 501,000 to 1,000,000 cubic ft. per year, is \$6.74 per 1,000 gallons. Tier 5, which is 1,000,001 to 1,500,000 cubic ft. per year, is \$6.93 per 1,000 gallons. Tier 6, which is over 1.5 million or more cubic ft. per year, is \$7.22 per 1,000 gallons.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but they can also save you money by reducing your water bill. Here are a few suggestions.

1. Use water-saving, flow-restricting shower heads and low flow faucets (aerators).
2. Repair dripping faucets.
3. Replace your toilet with a low-flush model or place toilet tank dams in your tank to reduce the volume used on each flush.
4. Water your garden and lawn only when necessary. Remember that a layer of mulch in the flower beds and garden is not only aesthetically pleasing but will help retain moisture.
5. Water your lawn after 6:00 p.m. to prevent water loss due to evaporation.
6. When washing your car, don't let the hose run continuously.

Questions?

For more information about this report, or for any questions relating to your drinking water, please call Thomas G. Brann, Water Foreman, at (914) 271-3775 or Westchester County Department of Health at (914) 813-5000, or visit www.westchestergov.com/health.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Village Board of Trustees meets on the first and third Monday of each month beginning at 8:00 p.m. at the Stanley H. Kellerhouse Municipal Building, One Van Wyck Street, Croton-on-Hudson, NY 10520.

Nondetected Substances

As required by state regulations, we routinely test our drinking water for numerous contaminants. In 2010 and previous years, the following substances were tested for and were not detected: Alachlor, Aldicarb, Aldicarb Sulfoxide, Aldicarb Sulfone, Arsenic, Atrazine, Carbofuran, Chlordane, Dibromochloropropane, 2,4-D, Endrin, Ethylene Dibromide, Heptachlor, Heptachlor Epoxide, Lindane, Methoxychlor, PCBs, Pentachlorophenol, Toxaphene, 2,4,5-TP (Silvex), Aldrin, Benzo(a)pyrene, Butachlor, Carbaryl, Dalapon, Di-(2-ethylhexyl)adipate, Di-(2-ethylhexyl) phthalate, Dicamba, Dieldrin, Dinoseb, Endothall, Glyphosate, Hexachlorobenzene, Hexachlorocyclopentadiene, 3-Hydroxycarbofuran, Methomyl, Metolachlor, Metribuzin, Oxamyl(vydate), Picloram, Propachlor, Simazine, Sulfate, 2,3,7,8-TCDD (Dioxin), Cyanide, Cadmium, Chromium, Mercury, Selenium, Antimony, Beryllium, Organohalide, Toxaphene, Microextractables, Benzene, Bromobenzene, Bromomethane, n-Butylbenzene, Bromochloromethane, sec-Butylbenzene, tert-Butylbenzene, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, cis-1,2-Dichloroethene, 1,2-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloropropene, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, hexachlorobutadiene, isopropylbenzene, p-isopropyltoluene, methylene chloride, n-propylbenzene, styrene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethene, toluene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethene, trichlorofluoromethane, 1,2,3-trichloropropane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, p/m-xylene, o-xylene, vinyl chloride, methyl tert butyl ether, Silver, trans-1,2-Dichloroethene, monochloroacetic acid, monobromoacetic acid, dibromoacetic acid, Fluoride, Nickel, ethylbenzene, and Odor.

Facility Modification and System Improvements

In 2010, the Village commenced construction of water system improvements. These improvements include new water mains and water service lines on High Street.

The Village continues to work with Chazen Engineering to explore and develop new well water sources located in the village's wellfields.

Source Water Assessment

The New York State Department of Health (NYS DOH) has completed a Source Water Assessment for this system. Based on available information, possible and actual threats to this drinking water source were evaluated. The state Source Water Assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water; it does not mean that the water delivered to consumers is, or will become, contaminated. See the section called "Sampling Results" for a list of the contaminants that have been detected, if any. The source water assessments provide resource managers with additional information for protecting source waters into the future.

The Source Water Assessment has rated our three wells as having a medium-high susceptibility to microbials. These ratings are due primarily to the fact that they are high-yielding wells, drawing from a possible unconfined aquifer, which is a shallow aquifer that occurs immediately below the ground surface and has no overlying protective layer to prevent contamination from potential sources. While the Source Water Assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

A copy of the Source Water Assessment can be obtained for a fee by contacting the Village Engineering Department at (914) 271-4783.

How Is My Water Treated?

Groundwater pumped from the sand and gravel aquifer is treated with chlorine at the water treatment plant for disinfection purposes. We carefully monitor the amount of chlorine, adding the quantity necessary to protect the safety of our water without compromising taste or other water-quality parameters.

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 and the U.S. FDA 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.

About Our Violations

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the 2010 year, we did not complete any monitoring or testing for primary inorganics and during the period from February 24 to February 28, 2010, we did not complete all monitoring or testing for total coliform bacteria, and therefore cannot be sure of the quality of your drinking water during that time. Please be advised that all monitoring of the Village's potable water is completed in accordance with the regulations set by the Department of Health and at no point did Village water present a health risk to our residents.

In July 2010, the Village started the replacement of the water mains of High Street while the plans were being reviewed by the Westchester County Health Department. A violation was issued to the Village for construction of the water main without prior approval by the Westchester County Health Department since the plans were not approved at the time construction began.

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 tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often 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)		DATE SAMPLED		MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium ¹ (ppm)		06/07/2007		2	2	0.032	0.021–0.032	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloride (ppm)		06/08/2010		250	NA	65.7	55.1–65.7	No	Naturally occurring; Indicative of road salt contamination
Chlorine (ppm)		2010 (daily)		[4]	NA	0.6	0.2–0.6	No	Water additive used to control microbes
Combined Radium [226 and 228] (pCi/L)		06/02/2004		5	0	0.9	NA	No	Erosion of natural deposits
Gross Alpha Activity [including radium 226 but excluding radon and uranium] (pCi/L)		06/02/2004		15	0	0.8	NA	No	Erosion of natural deposits
Haloacetic Acids (ppb)		08/13/2010		60	NA	4.1	1.3–4.1	No	By-product of drinking water disinfection needed to kill harmful organisms
Iron (ppb)		06/08/2010		300	NA	35	ND–35	No	Naturally occurring
Manganese (ppb)		06/08/2010		300	NA	6	6.2–7	No	Naturally occurring; Indicative of landfill contamination
Nitrate (ppm)		04/07/2010		10	10	0.68	0.33–0.68	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)		04/07/2010		1	1	0.02	0.02–0.02	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium ² (ppm)		06/08/2010		(see footnote 2)	NA	35.6	28.4–35.6	No	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)		06/08/2010		250	NA	11.8	10.7–11.8	No	Naturally occurring
Thallium ¹ (ppb)		09/17/2007		2	0.5	1.5	NA	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Total Trihalomethanes [TTHMs] ³ (ppb)		08/13/2010		80	NA	15.8	13.0–15.8	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter
Zinc (ppm)		06/08/2010		5	NA	0.006	ND–0.006	No	Naturally occurring; Mining waste
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) ⁴		RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	9/14/10–9/16/10	1.3	1.3	1.01		ND–1.03	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	9/14/10–9/16/10	15	0	10.9		ND–25.4	1/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

¹No MCL Violation, see below for sampling violation.

²Water that contains more than 20 ppm of sodium should not be used for drinking by people on severely restricted sodium diets. Water that contains more than 270 ppm of sodium should not be used for drinking by people on moderately restricted sodium diets.

³The trihalomethanes detected were bromodichloromethane, chloroform, and dibromochloromethane.

⁴The level presented represents the 90th percentile of the total sites tested. A percentile is a value on a scale of 100 that indicates the percent of the distribution that is equal to or below it. The 90th percentile is equal to or greater than 90 percent of the lead and copper values detected.



Definitions

AL (Action Level):

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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.

pCi/L (picocuries per liter): A measure of radioactivity.

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).