

ANNUAL WATER QUALITY REPORT

Water testing performed in 2007



VILLAGE OF
CROTON-ON-HUDSON

PWS ID#: 5903425

Continuing Our Commitment



We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1, 2007 through December 31, 2007. We are pleased to tell you that our compliance with all state and federal drinking water regulations remains exemplary. We are committed to meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

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, New York, 10520.

How Is My Water Treated?

For disinfection purposes, groundwater pumped from the sand and gravel aquifer is treated with chlorine at the water treatment plant. 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.

Important Health Information

Although our drinking water achieved or exceeded state and federal regulations, 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. The U.S. 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 online at www.epa.gov/safewater/.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and 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 two minutes before using the 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.

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 2007, there were no restrictions placed on our water source.

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 can also save you money by reducing your water bill. Here are a few suggestions.

Conservation measures you can use inside your home and business:

- 1) Use water-saving, flow-restricting shower heads and low flow faucets (aerators)
- 2) Repair dripping faucets and toilets that seem to flush by themselves
- 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., this prevents water loss due to evaporation
- 6) When washing your car don't let the hose run continuously



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 Sampling Results section 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 in 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 the wells are high-yield wells, drawing from a possible unconfined aquifer; this is a shallow aquifer that occurs immediately below the ground's 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.

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 the Westchester County Department of Health at (914) 813-5000.

Substances That Might Be in Drinking 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 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 New York State Department of Health'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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Facility Modification/System Improvements

The Village received a community development block grant to help pay for water main replacement and other infrastructure improvements on High Street. The design and planning work is nearly complete and construction should begin in late summer 2008.

The Chazen Group is working on the implementation of a comprehensive corrosion control system to help alleviate instances of discolored water, to lower lead and copper levels, and to help prolong the life expectancy of the water mains and service lines throughout the Village.

In 2007, a generator installation was completed at the Upper North Highland Booster Station.

The Village is exploring the possibility of the installation of a new well in the wellhead protection area.



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 2007, the total amount of water withdrawn from the aquifer was approximately 412 million gallons. The daily average volume of water treated and pumped into the distribution system was 1.1 million gallons per day. Approximately 95% 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 2007 billing rate was \$4.307 per 100 cubic feet (748 gallons). The minimum semiannual water bill was \$38.76 (for up to 900 cubic feet of usage).

Non-detected Substances

As required by state regulations, we routinely test our drinking water for numerous contaminants. In 2007 and in 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, 2,3,7,8-tcdd (dioxin), cyanide, cadmium, chromium, mercury, selenium, antimony, beryllium, organohalide, toxaphene, dalapon, dicamba, dinoseb, picloram, 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, iron, silver, trans-1,2-dichloroethene, monochloroacetic acid, monobromoacetic acid, dibromoacetic acid, nitrite, fluoride, nickel, ethylbenzene, sulfate, zinc.

Footnotes:

- ¹ The state considers 50 pCi/L to be the level of concern of beta particles.
- ² The haloacetic acids detected were trichloroacetic acid and dichloroacetic acid.
- ³ Water 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.
- ⁴ The trihalomethanes detected were bromodichloromethane, chloroform, and dibromochloromethane.
- ⁵ The level presented represents the 90th percentile of the 20 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% of the lead and copper values detected.

Sampling Results

We are pleased to report that during the past year, the water delivered to your home or business complied with, or exceeded, all applicable state and federal drinking water operating, monitoring, and reporting requirements. We have compiled the table below to show what substances were most recently detected in our drinking water. Although all of the substances listed are under the Maximum Contaminant Level (MCL), or other standards set by the U.S. EPA or the New York State Department of Health, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data we reported was based on samples collected prior to 2007, but it is still representative of our water quality. 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 (ppm)		6/7/07	2	2	0.032	0.021–0.032	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloride (ppm)		9/17/07	250	NA	54	50–54	No	Naturally occurring or indicative of road salt contamination
Chlorine Residual (ppm)		1/1/07-12/31/07	[4]	NA	0.6	0.2–0.6	No	Water additive to control microbes
Combined Radium [226 and 228] (pCi/L)		06/02/04	5	0	0.9	NA	No	Erosion of natural deposits
Gross Alpha Activity [including radium 226 but excluding radon and uranium] (pCi/L)		6/2/04	15	0	0.8	NA	No	Erosion of natural deposits
Gross Beta (pCi/L) ¹		06/02/04	50	0	3.4	NA	No	Erosion of natural deposits
Haloacetic Acids ² (ppb)		8/14/07	60	NA	5.3	3.4–5.3	No	By-product of drinking water disinfection needed to kill harmful organisms
Manganese (ppb)		9/17/07	300	NA	6.7	ND–6.7	No	Naturally occurring; Indicative of landfill contamination
Nitrate (ppm)		4/11/07	10	10	0.38	0.38–0.38	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Odor (Units)		9/17/07	3	NA	1	NA	No	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources
Sodium ³ (ppm)		9/17/07	(see footnote)	NA	32	30–32	No	Naturally occurring; Road salt; Water softeners; Animal waste
Thallium (ppb)		9/17/07	2	0.5	1.5	NA	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Total Trihalomethanes [TTHMs] ⁴ (ppb)		8/22/07	80	NA	16.0	9.2–16	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter
Tap water samples were collected from 20 sample sites throughout the community.								
SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE) ⁵	RANGE LOW-HIGH	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	8/23/06	1.3	1.3	1.01	ND–1.6	2	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	8/23/06	15	0	8.6	ND–20	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Definitions

- 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 contamination.
- 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).