



ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2008



VILLAGE OF
CROTON-ON-HUDSON



PWS ID#: 5903425

Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to

serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.



Press Release Statement

The Village of Croton-on-Hudson was the 2008 winner of Westchester County's annual water tasting competition run by the Westchester County Health Department.

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 uses private wells, which are not covered by this report. In 2008, there were no restrictions placed on our water source.

System Improvements

The new water mains on Clinton and Wayne streets were placed into service, improving quality and fire flows.

The water main extension to Croton Landing was placed into service, extending water supply and fire protection to the new park.

The installation of new well #5 is moving forward. Chazen Engineering has been authorized to complete the installation and testing of well #5. Final approval for the installation is being sought from the Health Department.

The design of the corrosion control system



is being looked at more comprehensively by Chazen Engineering; this includes the treatment of the water from future well #5 and the evaluation of new EPA regulations on the treatment of groundwater.

The design of a revised inlet piping configuration for the North Highland water storage tank was completed; the design will reduce stagnation in the tank, resulting in improved water quality; proposals are being sought for the installation work.

All four water storage tanks were inspected with interior inspections being conducted by an underwater robotic camera. The inspection results assist with maintenance and repair of the tanks and collection of information for the design of the mixing system in the upper North Highland tank.

Additional improvements being planned are replacement of old valves, water main extension to loop the water main on Croton Point Ave., and a system-wide leak detection survey.

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 "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 the wells 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.

Community Participation

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

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.

Our Copper Exceedance

The results of the June 19, 2008, copper tests caused the Village of Croton to lose its reduced sampling requirements for lead and copper. Additional sampling is now being required by the Health Department.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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.

Non-detected Substances

As required by state regulations, we routinely test our drinking water for numerous contaminants. In 2008 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, 2,3,7,8-TCDD (Dioxin), Cyanide, Cadmium, Chromium, Mercury, Selenium, Antimony, Beryllium, Organohalide, Toxaphene, Dalapon, Dicamba, Dinoseb, Pichloram, 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, Odor, Thallium.

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 at your home and business:

- 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., this prevents water loss due to evaporation
- 6) When washing your car don't let the hose run continuously

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 and young children. 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 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 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 2008, the total amount of water withdrawn from the aquifer was approximately 367 million gallons. The daily average volume of water treated and pumped into the distribution system was 1.0 million gallons per day. Approximately 95 percent 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 2008 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).

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 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.

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. 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 were based on samples collected prior to 2008, 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	0.32	0.21–0.32	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	By-product of drinking water chlorination
Combined Radium [226 and 228] (pCi/L)	6/2/04	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 ¹ (pCi/L)	6/2/04	50	0	3.4	NA	No	Erosion of natural deposits
Haloacetic Acids (ppb)	8/14/07	60	NA	5.3	3.4–5.3	No	By-product of drinking water disinfection needed to kill harmful organisms
Iron (ppb)	6/12/08	300	NA	5	ND–5	No	Naturally occurring
Manganese (ppb)	6/12/08	300	NA	3.3	ND–3.3	No	Naturally occurring; Indicative of landfill contamination
Nitrate (ppm)	4/8/08	10	10	0.63	0.39–0.63	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium ² (ppm)	6/12/08	(see footnote)	NA	32.9	28–32.9	No	Naturally occurring; Road salt; Water softeners; Animal waste
Total Trihalomethanes [TTHMs] ³ (ppb)	9/8/08	80	NA	17.8	10.5–17.8	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter

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	EXCEEDANCE	TYPICAL SOURCE
Copper ⁴ (ppm)	6/19/08	1.3	1.3	1.4	ND–1.5	3/20	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	6/19/08	15	0	8.1	ND–27.7	1/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

¹The state considers 50 pCi/L to be the level of concern of beta particles.

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 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 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 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.

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).

