



ANNUAL WATER QUALITY REPORT

Water testing performed in 2006

Proudly Presented By:

VILLAGE OF
CROTON-ON-HUDSON



AWARDED BEST TASTING WATER IN WESTCHESTER!

PWS ID#: 5903425

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 1, 2006 through December 31, 2006. 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.



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.

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 Mondays 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.

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/.

VISIT US AT WWW.CROTONONHUDSON-NY.GOV

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 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 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

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 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 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, New York 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

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 2006, there were no restrictions placed on our water source.

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, the 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 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-yielding,



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 by contacting the Village's engineering department at (914) 271-4783.

About Our Violation

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 2004, we did not monitor or test for Total Trihalomethanes and Total Haloacetic Acids, and therefore cannot be sure of the quality of your drinking water during that time. However, the sample results obtained in 2005 and 2006 were significantly below the maximum contaminant level. We do not believe that neglecting to sample in 2004 had any impact on public health and safety. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future so that this oversight will not be repeated. The 2005 report and this current report show the sampling results for Total Trihalomethanes and Total Haloacetic Acids.

Facts and Figures

The water system supplies approximately 7,700 primarily residential customers but also serves businesses and industries through approximately 2,500 service connections. During 2006, the total amount of water withdrawn from the aquifer was approximately 425 million gallons. The daily average volume of water treated and pumped into the distribution system was 1.1 million gallons per day. Approximately 93% of the total water produced was billed directly to consumers. Firefighting, hydrant use, distribution system leaks, and unauthorized use accounted for the balance. The 2006 billing rate was \$4.014 per 100 cubic feet (748 gallons). The minimum semiannual water bill was \$36.13 (for up to 900 cubic feet of usage).

How Is My Water Treated?

Groundwater pumped from the water treatment plant 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.

Non-detected Substances

As required by state regulations, we routinely test our drinking water for numerous contaminants. In 2006 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, endosulfan, 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, thallium, 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.

Working Hard For You

The water main and service line replacement in the Harmon Area of the Village, which began in 2005, was completed in the fall of 2006. In 2007 the water mains and service lines will be replaced on Wayne Street and Clinton Street.

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 scheduled for the spring and summer of 2007 with construction in late 2007 or early 2008.

In 2006 the Chazen Group completed a report on the feasibility of a corrosion control system to help alleviate complaints about 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.

Improvements to the recently acquired property in the wellhead protection area began in 2006 and will continue in 2007.

The process of installing a radiometer for every residential household in the Village is over 92% complete. This state-of-the-art reading system will simplify meter reading and billing. A radio transmitter is installed on the water meter, which allows the portable radio receiver to pick up the individual meter reading, store it, and, when the reading is complete, download the data to the Village's billing system software. This automated process greatly reduces the number of hours spent on meter reading and water billing. Residents who do not yet have a radiometer should call the Village office at 271-4781 to make an appointment for a radiometer installation at no cost to the resident.



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 NYS 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 2006, but it is still representative of our water quality.

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.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	08/03/04	2	2	0.034	0.024–0.034	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloride (ppm)	06/07/06	250	NA	66	61–66	No	Naturally occurring or indicative of road salt contamination
Chlorine Residual (ppm)	01/01/06–12/31/06	[4]	NA	0.6	0.2–0.6	No	By-product of drinking water chlorination
Combined Radium [226 and 228] (pCi/L)	06/02/04	5	0	0.9	NA	No	Erosion of natural deposits
Gross Alpha (pCi/L)	06/02/04	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 (ppb) ²	08/09/06	60	NA	1.6	NA	No	By-product of drinking water disinfection needed to kill harmful organisms
Manganese (ppb)	06/07/06	300	NA	23	ND–23	No	Naturally occurring; Indicative of landfill contamination
Nitrate (ppm)	04/04/06	10	10	0.67	0.29–0.67	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Odor (TON)	06/28/06	3	NA	1	NA	No	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources
Sodium (ppm)	06/07/06	(see footnote) ³	NA	32	30–32	No	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)	06/07/06	250	NA	14	11–14	No	Naturally occurring
Total Trihalomethanes [TTHMs] (ppb) ⁴	08/09/06	80	NA	12.4	9.4–12.4	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)	06/09/05	5	NA	0.01	NA	No	Naturally occurring; Mining waste

Tap water samples were collected from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90 th %tile) ⁵	RANGE LOW-HIGH	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	08/23/06	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) ⁶	08/23/06	15	0	8.6	ND–20	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Footnotes:

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

²The Haloacetic acid detected was trichloroacetic acid.

³Water 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.

⁴The trihalomethanes detected were bromodichloromethane, chloroform, and dibromochloromethane.

⁵The 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.

⁶Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials in your home's plumbing. If you are concerned about lead levels in your home's tap water, and want to minimize your exposure, you can flush your tap water for 30 seconds to two minutes before using tap water. You may also choose to have your water tested at your own expense. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791.

Table 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).

TON (Threshold Odor Number): A measure of odor in water.