

# ANNUAL WATER QUALITY REPORT

*Water testing performed in 2007*



*Presented By:*

VILLAGE OF MOUNT KISCO  
WATER DEPARTMENT

PWS ID#: 59034347

## 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, 2007. We are pleased to tell you that last year your tap water met all state drinking water health standards and did not violate a maximum contaminant level or any other water quality standard. 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.

## 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 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](http://www.epa.gov/safewater/lead).

## Where Does My Water Come From?

The Village of Mount Kisco's primary water source is Byram Lake Reservoir, which is a surface water supply located on Byram Lake Road in the towns of Bedford and North Castle. Water from Byram Lake Reservoir is pumped to the Byram Lake Filtration Plant, where the water is then disinfected with chlorine, treated for corrosion control, and filtered before entering the distribution system. The Leonard Park Wells supplement the Byram Lake water supply. The well water is disinfected with chlorine, aerated to remove radon, and treated for corrosion control before entering the distribution system.

## Facility Modification/System Improvements

Ongoing water distribution improvements continued in 2007 with the installation of new hydrants throughout the village and installation of new remote read water meters and new water mains on Sands Street and Hillside Avenue. Further improvements to our distribution system will continue in 2008 with the replacement of the Byram Lake Road water main, improvements to the water main in North Bedford Road, and various other ongoing system-wide improvements.

## Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources.

According to the Source Water Assessment Plan, our water system had a susceptibility rating of 'medium.' If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

## 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 that limit the amount of certain contaminants in water provided by public water systems. State Health Department and U.S. FDA regulations establish limits for contaminants in bottled water that 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.

## Cryptosporidium Monitoring

*Cryptosporidium* is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100% removal. During 2007, as part of our routine sampling plan, 5 samples were taken bi-weekly, 10 per month, with no positive results. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the infection within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

## Community Participation

You are invited to participate in our public forum and to voice your questions or concerns about your drinking water at a regularly scheduled Village Board of Trustees Meeting. Meetings are generally held every two weeks on Mondays beginning at 7:30 p.m. at Village Hall, 104 Main Street, Mount Kisco, New York.

## Water Conservation

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 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.

## Questions?

For more information about this report, or for any questions relating to your drinking water, please contact Jeffrey Econom, Assistant Village Manager at (914) 864-0026 or visit the Village website at [www.mountkisco.org](http://www.mountkisco.org). Mr. Econom is responsible for overseeing the Village's Water Department and the distribution system. Our Water Filtration Plant and the Leonard Park Wells are operated by United Water. You can also call the Westchester County Department of Health at (914)864-7332.



## About our Violation

During routine sampling in December 2007, we failed to take a second round of sampling for *E. coli*. We do not believe that missing this monitoring requirement 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.

## Contamination from Cross-Connections

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).



Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

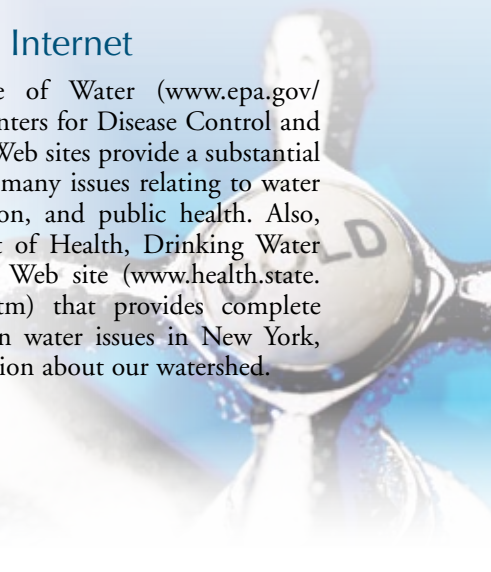
For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at [www.epa.gov/safewater/crossconnection.html](http://www.epa.gov/safewater/crossconnection.html). You can also call the Safe Drinking Water Hotline at (800) 426-4791.

## Facts and Figures

Our water system serves approximately 10,000 customers through 2,300 service connections. The total amount of water produced in 2007 was 590 million gallons. The daily average of water treated and pumped into the distribution system is 1.616 million gallons per day. Approximately 70% of the total was billed directly to consumers. The balance or unaccounted water was used for firefighting, hydrant use, distribution system leaks, and unauthorized use. In 2007 the annual water charge per customer was \$804, based on an average household water use of 10,800 cubic feet.

## Information on the Internet

The U.S. EPA Office of Water ([www.epa.gov/watrhome](http://www.epa.gov/watrhome)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the New York Department of Health, Drinking Water Protection Program, has a Web site ([www.health.state.ny.us/nysdoh/water/main.htm](http://www.health.state.ny.us/nysdoh/water/main.htm)) that provides complete and current information on water issues in New York, including valuable information about our watershed.



## Radon



Radon is a radioactive gas that occurs naturally in some groundwater. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Radon is released into homes and groundwater from soil. Water samples taken at the Leonard Park Wells in 2007 indicated a radon concentration of 145 pCi/L. The U.S. EPA has not established a MCL for radon yet; however, our finding is well below the proposed MCL of 300 pCi/L. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call (800) SOS-RADON.



## Non-detected Substances

The following contaminants were tested for but not detected in our water:

### Inorganics

Silver, Aluminum, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Cyanide, Chromium, Fluoride, Iron, Mercury, Ammonia as N, Nickel, Nitrite nitrogen as N, Nitrate nitrogen as N, Potable Metal Digestion, Antimony, Selenium, Thallium, Zinc

### Volatile Organic Compounds

Bromoform, Dibromochloromethane, Tetrachloroethane, Trichloroethane, Dichloroethane, Dichloropropene, Trichlorobenzene, Trichloropropane, Trimethylbenzene, Dichlorobenzene, Dichloropropane, Butanone (MEK), Chlorotoluene, Benzene, Bromobenzene, Bromochloromethane, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, Dichloroethene, Dibromoethane, Dichlorodifluoromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, Methyl isobutyl ketone (MIBK), Methyl tert-butyl ether (MTBE), Methylene Chloride, Nbutylbenzene, N-propylbenzene, Naphthalene, O-xylene, P & M-xylene, Pisopropyltoluene, SEC-butylbenzene, Styrene, TERTbutylbenzene, Toluene, trans-1,2-dichloroethene, trans-1,3-dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

### Synthetic Organics

Dioxin, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 4,4-DDE, Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Heptachlor Epoxide, Lindane, Methoxychlor, PCBs, Propachlor, Toxaphene, 2,4,5-T, 2,4-D, Dalapon, DCPA di-acid, Dicamba, Dinoseb, Pentachlorophenol, Picloram, Silvex, 2,4-Dinitrotoluene, 2,6-Dinitroloouene, Acetochlor, Alachlor, Atrazine, Benzo(a)pyrene, bis(2-Ethylhexyl)adipate, Butachlor, EPTC, Hexachlorobenzene, Hexachlorocyclopentadiene, Metoachlor, Metribuzin, Molinate, Simazine, Terbacil, 3-Hydroxycarbofuran, Aldicarb, Aldicard sulfone, Aldicard sulfoxide, Carbaryl, Carbofuran, Methomyl, Oxamyl, Glyphosate, Endothall, Diquat

# 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 table below shows only those contaminants that were detected in the water. We feel it is important that you know exactly what was detected and how much of the substance was present in the water.

REGULATED SUBSTANCES			Byram Lake			Leonard Park Wells				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	250	NA	1/10/07	0.0488	NA	1/10/07	0.015	NA	No	Naturally occurring or indicative of road salt contamination
Color (ppb)	15	NA	NA	NA	NA	1/10/07	1	NA	No	Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant by-products such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter
Manganese (ppb)	300	NA	1/10/07	7.7	NA	1/10/07	32.5	NA	No	Naturally occurring; Indicative of landfill contamination
Sodium (ppm)	Refer to footnote 1	NA	1/10/07	23.6	NA	1/10/07	0.0112	NA	Yes <sup>1</sup>	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (ppm)	250	NA	1/10/07	0.00996	NA	1/10/07	0.0233	NA	No	Naturally occurring
Turbidity <sup>2</sup> (NTU)	TT	NA	NA	0.13	NA	1/10/07	0.59	0.59–0.59	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT	NA	NA	NA	NA	1/10/07	100	NA	No	Soil runoff

Tap water samples were collected from 20 sample sites throughout the community (Lead was not detected at the 90th percentile)

SUBSTANCE (UNIT OF MEASURE)	ACTION LEVEL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH%TILE)	RANGE LOW-HIGH	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	1.3	1.3	1/10/07	0.0028	0.000044–0.00168	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	15	0	1/10/07	5.7	ND–8.2	0	No	Corrosion of household plumbing systems; Erosion of natural deposits;

OTHER UNREGULATED SUBSTANCES		Byram Lake			Leonard Park Wells		
SUBSTANCE (UNIT OF MEASURE)		DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Calcium (ppb)		1/10/07	1460	NA	1/10/07	2650	NA
Hardness (ppb)		1/10/07	63	NA	1/10/07	92	NA
Ortho Phosphorus (ppb)		1/10/07	0.276	NA	1/10/07	0.142	NA
Total Phosphorus (ppb)		1/10/07	0.328	NA	1/10/07	0.145	NA
pH (ppb)		1/10/07	7.45	NA	1/10/07	7.63	NA

<sup>1</sup>Water 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.

<sup>2</sup>Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. TT is dependent upon filtration method: conventional (0.3 NTU), slow sand (1.0 NTU) or diatomaceous earth filtration (1.0 NTU).

## 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

**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).

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