



Water testing performed in 2009

Presented By:
VILLAGE OF MOUNT KISCO

PWS ID#: 59034347

Maintaining High Standards

Once again we are proud to present our annual water quality report. This report covers all testing performed between January 1, 2009, and December 31, 2009. The events of the past few years have presented many of us with challenges we could not have imagined. Yet in spite of this, we have maintained our high standards in an effort to continue delivering the best quality drinking water possible. There may be other hurdles in the future, but know that we will always stand behind you and the drinking water we work diligently to provide.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions, we are always available to assist you.

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.

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. The water filtration plant and wells are operated by United Water.

“WHEN THE WELL'S DRY, WE KNOW
THE WORTH OF WATER. - Benjamin Franklin”

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.

Community Participation

You are invited to participate in our public forum and 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 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 a 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. You can also call the Westchester County Department of Health at (914) 813-5000. To be informed of water emergencies, please sign up on the Village of Mount Kisco Emergency Email Alert System at www.mountkisco.org, or you may call the Water Quality Information Line at (914) 864-0020 for a recorded message.



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.

Cryptosporidium in Water

Cryptosporidium is a microbial pathogen found in surface water and ground water under the influence of surface water. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. During 2009, 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 disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised 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.

Facility Modification/ System Improvements

In 2009 the Village continued its water distribution system improvements with hydrant replacements, the installation of remote read water meters, and new water mains on West Street and Locust Street. Various other improvements to the distribution system will continue in 2010.

Facts and Figures

Our water system serves approximately 10,000 customers through 2,300 service connections. The total amount of water produced in 2009 was 615 million gallons. The daily average of water treated and pumped into the distribution system is 1.887 million gallons per day. Approximately 70 percent 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 2009 the annual water charge per customer was \$804, based on an average household water use of 10,800 cubic feet.

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, Benzane, Bromobenzene, Bromochloromethane, Bromomethane, Carbon tetrachloride, Chlorobezene, Chloroethane, Chloromethane, Dichlorethene, Dibromoethane, Dichlorodifluoromethane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, Methyl isobutyl ketone (MIBK), Methyl tert-butyl ether (MTBE), Methylene Chloride, N-butylbenzene, 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-Dinitrolouene, 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.



What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses about 100 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.h2oconserve.org or visit www.waterfootprint.org to see how the water footprints of other nations compare.

Radon

Radon is a radioactive gas that occurs naturally in some ground water. 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 ground water from soil. Water samples taken at the Leonard Park Wells in 2009 indicated a radon concentration of 133 pCi/L. The U.S. EPA has not established an 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.

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. 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										
			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	3/5/09	24.2	NA	3/5/09	43.3	NA	No	Naturally occurring or indicative of road salt contamination
Manganese (ppb)	300	NA	3/5/09	26.8	NA	3/5/09	ND	NA	No	Naturally occurring; Indicative of landfill contamination
Sodium ¹ (ppm)	(see footnote)	NA	3/5/09	12.4	NA	3/5/09	27.2	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
Turbidity ² (NTU)	TT	NA	3/5/09	0.35	0.35–0.35	3/5/09	0.20	0.20–0.20	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	TT	NA	3/5/09	NA	NA	3/5/09	NA	NA	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community										
SUBSTANCE (UNIT OF MEASURE)	AL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE		
Copper (ppm)	1.3	1.3	3/5/09	0.181	0.044–1.68	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives		
Lead (ppb)	15	0	3/5/09	3	ND–8.2	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits		
OTHER 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)	3/5/09	3,670	NA	3/5/09	1,970	NA				
Hardness (ppb)	3/5/09	130	NA	3/5/09	70	NA				
pH (Units)	3/5/09	7.77	NA	3/5/09	7.17	NA				
Ortho Phosphorus (ppb)	3/5/09	0.700	NA	3/5/09	0.289	NA				
Total Phosphorus (ppb)	3/5/09	0.843	NA	3/5/09	0.395	NA				

¹Water 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.

²Footnote for Byram Lake: 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 contaminants.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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.