

Annual Drinking Water Quality Report for 2009
Village of Morrisville
P.O. Box 955
Morrisville, NY 13408
Public Water Supply ID# NY2603521

INTRODUCTION

To comply with State regulations, The Village of Morrisville will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Ray Heh, Water Operator, at (315) 684-3776. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. The meetings are held on the second Thursday of each month at 7:00 pm at the Municipal Building on Route 20.

WHERE DOES OUR WATER COME FROM?

In general, 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, 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. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves a population of 1500 through 312 metered service connections. Our water source is a groundwater source consisting of 2 drilled wells approximately 40 feet deep. The water is disinfected with sodium hypochlorite and fluoride is added for the prevention of dental caries prior to distribution.

New York State Source Water Assessment Program Summary:

The 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 section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

The public water supply serving the Village of Morrisville is derived from 2 drilled wells. The source water assessment has rated these wells as having a high to very high susceptibility rating for microbials, a medium-high susceptibility for industrial solvents and other industrial contaminants, and a very high susceptibility for nitrates. These ratings are due primarily to the close proximity of on-site septic systems identified within the assessment area. Based on submitted data, the wells draw from fractured bedrock and overlying soils may not provide adequate protection from potential contamination. Please note that, while the source water assessment rates the wells as being susceptible to microbials, the water is disinfected to ensure that that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination.

County and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. If you should have any questions please feel free to contact the Madison County Department of Health at 315-366-2526.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking 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 our data, though representative, are more than one year old.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit of Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination

Inorganic Compounds

Barium Well #1 Well #2	N N	2/5/07 2/5/07	0.110 0.160	Mg/l	2.000	2.000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper ⁽¹⁾	N	9/20/09	0.17 Range (0.032- 0.220)	Mg/l	1.300	AL = 1.300	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	Bi- Monthly In 2009	Avg.1.04 Range (0.8-1.42)	Mg/l	2.200	2.200	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories

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Inorganic Compounds

Lead ⁽²⁾	N	9/20/09	15 Range (1.0-17)	Ug/l	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate	N	10/13/09	1.32	Mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium ⁽³⁾	N	7/8/09	79	Mg/l	N/A	N/A	Naturally occurring, from road salt/softener/animal waste

Disinfection Byproducts

Total Haloacetic Acid	N	8/15/07	4.2	Ug/l	N/A	60	Byproduct of drinking water disinfection
Total Trihalomethanes	N	8/15/07	12	Ug/l	N/A	80	Byproduct of drinking water disinfection

Radiological Contaminants

Gross Alpha Activity (4)	N	2008 each quarter	0.48	pCi/l	0	15	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
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Principal Organic Compounds

Bromodichloromethane	N	7/17/09	4.3	Ug/l	N/A	80	Byproduct of drinking water disinfection
Bromoform	N	7/17/09	1.3	Ug/l	N/A	80	Byproduct of drinking water disinfection
Chloroform	N	7/17/09	3.0	Ug/l	N/A	80	Byproduct of drinking water disinfection
Dibromodichloromethane	N	7/17/09	4.2	Ug/l	N/A	80	Byproduct of drinking water disinfection

Notes:

1 – The level presented represents the 90th percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90th percentile value was 0.170 mg/l. The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90th percentile of the 10 samples collected. The action level for lead was exceeded at one of the sites tested.

3 – 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.

4 – The State considers 15 pCi/l to be the level of concern for gross alpha.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Parts Per Million (ppm): Corresponds to one part of liquid in one million parts of liquid.

Parts Per Billion (ppb): Corresponds to one part of liquid in one billion parts of liquid.

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Madison County Health Department at 315-366-2526.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

We are required to present the following information on lead in drinking water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The Village of Morrisville is 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2009, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met 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. 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 (800-426-4791).

INFORMATION ON FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis. During 2009 monitoring showed fluoride levels in your water were in the optimal range 100 % of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water 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. Conservation tips include:

- ◆ 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 one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.