

Village of Tivoli Water System
2010 Annual Drinking Water Quality Report
P.O. Box 397, 86 Broadway, Tivoli, NY 12583
(Public Water Supply ID #01302778)

We're pleased to present to you this year's Annual Quality Water Report. To comply with State and Federal Regulations, the Village of Tivoli will be annually issuing a report describing the quality of your drinking water. This report is designed to inform you about the quality water and services we deliver to you every day, and raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. 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. The Village of Tivoli is pleased to report that our drinking water meets Federal and State Requirements. We are proud to report that our system has not violated any maximum contaminant level or any other water quality standard. This report provides details about where our water comes from, its quality, what it contains, how it compares to State Standards, and what it means.

If you have any questions about this report or concerns about your water utility, please contact Mr. James Simmons, Water Superintendent, at 845-757-2021. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of the Village of Tivoli, regularly scheduled Village Board meetings. They are held on the third Wednesday of each month at 7:00 P.M. at the Village Hall.

Where does our water come from?

In General, The source of drinking water (both tap water and bottled water) includes 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. 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 source is groundwater drawn from eight (8) wells. These wells were developed between 1940 and 2005 and are located in various areas of the Village. The water is pumped from the wells into three different pump stations. The raw water is then disinfected with sodium hypochlorite within the pump stations to remove microbiologic contaminants prior to distributing it to our customers. The water system is owned and operated by the Village of Tivoli. In 2010, the Village of Tivoli Water System pumped and treated over 26 million gallons of water serving a population of 1,165 people through 465 service connections. Our average daily consumption from service connections for a single day was roughly 71 thousand gallons per day.

Are there contaminants in our drinking water?

The Village of Tivoli routinely monitors for constituents in your drinking water according to Federal and State Laws. The table below lists all of the drinking water contaminants that we detected in our extensive monitoring program, during the period of January 1st to December 31st, 2010. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. To insure maximum water quality for our customers, the Village of Tivoli Water System staff, monitors distribution water daily. During 2010, the Village conducted over 365 tests, for over 100 contaminants. These tests include organic compounds, synthetic organic compounds, disinfection bi-products, chlorination levels, and microbiologic examination for coliforms. It's important to remember that the presence of these constituents does not necessarily pose 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 Dutchess County Health Department at 845-486-3404.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Maximum Contaminant Level - (mandatory language) The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - (mandatory language) The "Goal"(MCLG) is 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.

2008 - 2010 ANALYTICAL TEST RESULTS

Contaminant	Violation Y/N	Date Sampled	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	NO	1/10 -12/10 Monthly	0 Positive Sample	N/A	0	MCL= 2 or more positive samples	Naturally present in the environment
Inorganic Contaminants							
Nitrate (as Nitrogen)	NO	9/2 2010	0.62	mg/l	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Copper	NO	8/15-8/27 2008	0.088	mg/l	1.3	Action Limit = 1.3	Corrosion of galvanized pipes, Erosion of natural deposits
Lead	NO	8/15 – 8/27 2008	4	ug/l	0	Action Limit = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Barium	NO	12/22 2008	0.133	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	NO	12/22 2008	2.2	mg/l	2	2	Erosion of natural deposits; Water additive that promotes strong teeth
Radionuclides							
Alpha Particles	NO	8/27/09	2.8	pCi/L	None	5	Erosion of natural deposits of certain minerals that are radioactive and may emit a form or radiation known as alpha radiation.
Beta Particles	NO	8/27/09	1.8	pCi/L	None	4	Erosion of natural deposits of certain minerals that are radioactive and may emit a form or radiation known as Beta radiation.
Radium 226 And 228 (Total)	NO	8/27/09	1.10	pCi/L	None	5	Erosion of natural deposits.
Uranium	NO	8/27/09	1.6	pCi/L	None	5	Erosion of natural deposits.
Disinfection Byproducts Contaminants							
Trihalomethanes (TTHMs)	NO	1/12 2010	0.004	mg/l	None	0.10	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5)	NO	2/15 2010	<0.0010	mg/l	N/A	0.060	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 or lead values detected in your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the ninth highest value (Cu=0.088 mg/l, Pb=4 ug/l). The action level for copper and lead was not exceeded at any of the sites tested.

Microbiological Contaminants:

Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Inorganic Contaminants:

Nitrate: Infants below the age of six who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Copper: 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 Wilsons Disease should consult their personal doctor.

Lead: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and their learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Radionuclides:

Alpha and Beta Particles, Radium 226 and 228: Radionuclides including the alpha and beta particles, along with radium 226 and 228 are naturally occurring radioactive elements that may also be found in drinking water. Some people exposed to elevated levels of these radionuclides over many years in drinking water may have an increased risk in getting cancer. The State considers 5 pCi/L to be the level of concern for each of these particles.

What does this mean?

As you can see by the table, our system had no water quality violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected; however, these contaminants were detected below the level allowed by the State and the EPA. The EPA has determined that your water **IS SAFE** at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Although our drinking water meets or exceeds State and Federal Regulation, some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. EPA/CDC Guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria is present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care

provider.

Thank you for allowing us to continue providing your family and business with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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Is our system meeting other rules that govern operations?

During 2010, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

Water Conservation - Saving water can reduce your water bill

Although the Village of Tivoli Water Improvement Area water 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.
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers.
- 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's not hard to conserve water. Here are some ways you can save water.

- 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. Fixing a faucet leak 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 per day from one of these otherwise invisible toilet leaks. Fixing such a leak can save more than 30,000 gallons per year.
- Repair plumbing leaks promptly. To find a leak, turn off all water-using equipment for 20 minutes. Read your water meter at the beginning and the end of the 20 minutes, the reading should be the same. If not, suspect a leak and take action.
- Use low flow showerheads, toilets, faucets and other water saving devices.
- Water plants and lawns only in the evening, after the heat of the day, to reduce evaporation.

Thank you for allowing us to continue to provide your family with quality drinking water this year. Please call our office if you have questions. We at the Village of Tivoli Water System work around the clock to provide top quality water to every tap. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.