

Annual Drinking Water Quality Report for 2010
Narrowsburg Water District
210 Bridge Street Narrowsburg, NY 12764
(845) 252 7376
(Public Water Supply ID# NY5203338)

INTRODUCTION:

To comply with State regulations, the Narrowsburg Water District 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. 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.

We are proud to report that the water provided by the Narrowsburg Water District meets or exceeds established water-quality standards and did not violate a maximum contaminant level or any other water quality standard.

If you have any questions about this report or concerning your drinking water, please contact Scott Birney, superintendent at (845) 252-7376. We want you to be informed about your drinking water. If you want to learn more and participate in our community's decisions affecting our drinking water please attend any of our regularly scheduled Town of Tusten board meetings, which are on the 2nd Monday of every month at the Tusten Town Hall, starting at 7:00pm. The District advertises planned maintenance and service interruptions in the River Reporter and the Sullivan County Democrat, which also covers the Town of Tusten board meetings.

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 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.

In 2009 the Narrowsburg Water District served approximately 800 people through 300 service connections with 28.77 million gallons of groundwater pumped from Well#1, and Well #3. Well#1, located on the southern portion of Delaware Drive, takes water from the same sand and gravel alluvial deposit shared by the Delaware River. Well#2, located on the northern portion of Delaware Drive also takes water from the same sand and gravel deposit. Well # 3 is a rock well located along State Route 97 south of Narrowsburg. The water is pumped from the wells into a 200,000 gallon storage tank. Prior to distribution, the water is disinfected with chlorine gas and is treated with sodium hydroxide to reduce the natural corrosivity of the water, as it is transferred to the storage tank.

OVERVIEW AND HIGHLIGHTS:

Our wellhead protection plan (WHPP) and accompanying map are incorporated into the Tusten Zoning Ordinance. The WHPP will be used to review new development in our watershed areas and to promote practices that will preserve water quality. The District has installed sign's marking the wellhead boundaries.

Hydrant flushing is performed twice each year, once in April and October. Hydrant flushing reduces rusty water and will help keep our water mains clean. Along with our April flushing we exercise our main valves to ensure proper operation. Scheduled hydrant flushing is advertised in our local papers the River Reporter and the Sullivan County Democrat. We also are continuing to install a radio-based water meter reading collection system that will improve our ability to gather customer water use data and reduce the associated labor costs. About 2/3rds of our water system is now read by radio. We also are continuing our valve and hydrant replacement program. These key components in our distribution system are evaluated during hydrant flushing and 2 of each valve and hydrant are scheduled for replacement each year based on their condition.

SOURCE WATER ASSESSMENT:

In 1996 congress amended the Safe Water Act to include a new program that would evaluate the sources of public drinking water. The program is called the Source Water Assessment, the New York State Department of Health is responsible for implementing this program, it was created to identify possible contaminate threats to a drinking water source. The NYSDOH has completed their assessment of the Narrowsburg Water District based on information available. Possible and actual threats to the drinking water source have been 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 potential for contamination of source water, it does not mean that the drinking water delivered to consumers is or will be contaminated. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected. The purpose of the source water assessments is to provide resource managers with additional information for protecting source waters in the future.

As mentioned our drinking water is derived from 3-drilled wells. The source water assessment has rated these wells as having a medium high-to-high susceptibility to enteric bacteria and nitrates. These ratings are due to primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and or federal government) in relation to the wells. In addition the wells draw from an unconfined aquifer of unknown hydraulic conductivity. Please note that this report only details the possibility for contamination. Our water is tested regularly to ensure that the finished water coming into your home meets New York State drinking water standards.

County and state departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the full report with a map is available upon request from the District

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, 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. Total coliform is sampled on a monthly basis and all results have been satisfactory. Some of our data, though representative, is more than one year old. 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 New York State Health Department, Monticello District Office at (845) 794-2045.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Radioactive Contaminants:							
Beta particle and photon activity from manmade radionuclides	No	12/28/07	RANGE- 1.9-2.1 AVG- 2.0 ¹	pCi/l	0	50 (MCL)	Decay of natural deposits and man-made emissions.
Table of Detected Contaminants, con’t							

Radioactive Contaminants, con't:							
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Gross alpha activity (including radium – 226 but excluding radon and uranium)	No	12/28/07	RANGE- 1.2-2.5 AVG- 1.9	pCi/l	0	15 (MCL)	Erosion of natural deposits.
Combined radium – 226 and 228	No	12/28/07	RANGE- 0.6-2.6 AVG- 1.0	pCi/l	0	5 (MCL)	Erosion of natural deposits.
Inorganics:							
Barium	No	4/18/06	RANGE 42- 98 HIGH- 98	ug/l	2000	2000 (MCL)	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	2/3/09 - 12/2/09	RANGE- 12.0-58 HIGH- 58	mg/l	N/A	250 (MCL)	Naturally occurring or indicative of road salt contamination.
Chromium	No	4/18/06	RANGE- ND-01.2 HIGH- 1.2	ug/l	100	100(MCL)	Discharge from steel and pulp mills; Erosion of natural deposits.
Copper	No	6/4/08	0.73 ³ RANGE- 0.18-0.87 HIGH- 0.87	mg/l	1.3	1.3 (AL)	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Fluoride	No	4/18/06	RANGE- ND-220 HIGH- 220	ug/l	N/A	2200 (MCL)	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	No	12/10/08	RANGE- ND- 174 HIGH- 174	mg/l	N/A	300 (MCL)	Naturally occurring.
Lead	No	6/4/08	0.4.5 ³ RANGE- 1.5- 4.8 HIGH- 4.8	ug/l	0	15 (AL)	Corrosion of household plumbing systems; Erosion of natural deposits
Manganese	No	12/10/08	RANGE- ND- 11 HIGH- 11	ug/L	N/A	300 (MCL)	Naturally occurring; Indicative of landfill contamination.
Sodium	No	2/3/09- 12/2/09	RANGE- 7.2-68 HIGH- 68 ²	mg/l	See Note 2	N/A (MCL)	Naturally occurring; Road salt; Water softeners; Animal waste.
Selenium	No	4/18/06	RANGE ND- 1.2 HIGH- 1.2	ug/l	50	50 (MCL)	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sulfate	No	12/10/08	RANGE 12.0- 19.0 HIGH- 19.0	mg/l	N/A	250 (MCL)	Naturally occurring.
Zinc	No	12/10/09	RANGE- ND- 55 HIGH- 55	ug/l	N/A	5000 (MCL)	Naturally occurring; Mining waste.
Inorganics- Nitrate, Nitrite:							
Nitrate	No	4/6/09	RANGE 0.38-3.02 HIGH- 3.02	mg/l	10	10 (MCL)	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Organic Chemicals- Disinfection Byproducts:							
Total Trihalomethanes	No	7/23/08	RANGE 2.2-9.0 HIGH- 9.0	ug/L	N/A	60 (MCL)	By-product of drinking water disinfection needed to kill harmful organisms.

Table of Detected Contaminants, con't

Organic Chemicals- Disinfection Byproducts, con't:							
Total Haloacetic Acids	No	7/23/08	RANGE ND-3.3 HIGH- 3.3	ug/L	N/A	80 (MCL)	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Principal Organic Contaminants:							
Dibromomethane	No	6/2/08	0.70	ug/L	N/A	5 (MCL)	Dibromomethane finds limited use in chemical synthesis, as a solvent and as a gage fluid. It may be released to the environment during these used as well as in its production and transport. Also used as a solvent for fats, waxes and resins and an ingredient of fire extinguisher fluids.

Notes:

1. The State considers 50 pCi/l to be the level of concern for beta particles.
2. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
3. 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 or lead values detected at your water system. No samples tested above the action level for either lead or copper.

Definitions:

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

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.

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

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

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

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

90th Percentile Value: The values reported for lead and copper represent the 90th percentile. 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 lead and copper values detected at your water system.

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. These contaminants will continue to be monitored for any changes in concentration.

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 Narrowsburg Water District 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>.

NEW YORK STATE SANITARY CODE COMPLIANCE- VARIANCES, EXEMPTIONS, WAIVERS:

Under a waiver granted by the New York State Department Health our system is not required to monitor for Asbestos. Installation and maintenance records indicate that Transite pipe (which contains Asbestos) was not used in our Water District. During 2009, our system was in compliance with all 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).

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
- ◆ 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.
- ◆ Use clothes washers with full loads only.
- ◆ 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 up 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.
- ◆ Install water saving 2.5 gallon per minute showerheads, sink flow restrictors or aerators. A good shower head can cost as little as \$ 20.00, restrictors and aerators less than \$ 3.00
- ◆ 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.
- ◆ Keep a pitcher of water in your refrigerator. Don't run the tap water for cool drinking water.
- ◆ Use a broom to sweep your driveway, garage or sidewalk instead of water.
- ◆ Plant drought resistant trees and plants
- ◆ Call the District office for a free leak survey and water audit at (845) 252-7376
- ◆ Consider upgrading or replacing your older water using fixtures. Houses built in the 1960's probably have original toilets that use 5-7 gallons per flush. New toilets use 1.0 gallons and the newer ones do really work. (Call us for a list of recommended toilets.
- ◆ Maintaining of service lines between the curb valve and the house is the responsibility of the owner to keep in good condition and free of leaks. Any concerns of leaks should be directed to the District, we will assist in the determination of a problem.

HOW CAN I HELP PROTECT OUR DRINKING WATER?

Ground-water protection begins at home. You may be surprised to learn that the way you dispose of the products you use at home can contribute to the contamination of our community's ground water. Products like motor oil, pesticides, left-over paints or paint cans, mothballs, flea collars, weed killers, household cleaners, and even a number of medicines contain materials that can be harmful to ground water and to the environment in general.

Don't Pour it Down the Drain! Anything you pour down your drain or flush down your toilet will enter your septic system or our community's sewer system. Using this method to dispose of products that contain harmful substances can affect your septic system's ability to treat human wastes. Once in the ground, these harmful substances can eventually contaminate the ground water. In addition, most community wastewater treatment plants are not designed to treat many of these substances. Thus, they can eventually be discharged into bodies of surface water and cause contamination.

Don't Dump It on the Ground! Hazardous wastes that are dumped on or buried in the ground can contaminate the soil and either leach down into the ground water or be carried into a nearby body of surface water by runoff during rainstorms.

Do Use and Dispose of Harmful Materials Properly! There are very few options for disposing of hazardous products used in your home, so the first step may be to limit your use of such products. When possible, substitute a non-hazardous product. When that is not possible, buy only as much as you need. Finally, urge community officials to sponsor periodic household hazardous waste collection days if they have not established this policy. By helping our community to centralize collection of hazardous household wastes for appropriate disposal, you will be helping our community to make a major contribution toward protecting its ground water. The saying "Garbage in, garbage out" applies too more than computer databases.

Do Get Informed and Get Involved! You, alone or as part of a group, can help to educate your family, friends, and neighbors about the importance of ground water to our community. Learn where our wells are and what is around them.

For more information about protecting our drinking water - <http://www.epa.gov/safewater/dwh/getin.html>

SOME WATER FACTS:

The average person in the District uses about 80 gallons of water per day for all activities; cooking, cleaning, bathing/showers, dish and clothes washers, etc. The 2009 annual water bill for this amount is approximately \$ 128.92 and would fill a 2000 square foot house 2 feet deep for each person. A 4- person house would be filled to the ceiling.

If you used 80 gallons per day of Coca Cola it would cost \$ 138,000 per year.

If you used 80 gallons per day of Milk it would cost \$ 95,000 per year.

IN CLOSING:

Thank you for allowing us to continue to provide your family with quality drinking 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. 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. Please call our office if you have questions.

We at the Narrowsburg Water District work around the clock to provide top quality water to every tap. 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

This report was prepared by Superintendent –Scott Birney, using technical assistance provided by the New York Rural Water Association and the New York State Department of Health.

Our Superintendent, Scott Birney has been recognized as the 2009 Water Operator of the Year by the New York Rural Water Association. The New York Rural Water Association (NYRWA) is the largest membership organization representing small water/wastewater systems in the State.

The Narrowsburg Water District is a participating member of the following professional organizations: American Water Works Association; Hudson Valley Water Works Association; National Rural Water Works Association; New York Rural Water Association; and the Water Environment Federation.

This report is posted on the Town of Tusten Website at www.tusten-narrowsburg.org
U.S. Environmental Protection Agency (EPA) water information at www.epa.gov/safewater/