

Annual Drinking Water Quality Report for 2014

Town of Greenport

600 Town Hall Drive, Hudson, NY 12534

Greenport South Wells (Public Water Supply Identification Number NY1000238)

Mt. Ida for Columbia Country WD#1 (Public Water Supply Identification Number NY1030073)

INTRODUCTION

To comply with State regulations, the Town of Greenport 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 drinking water met all State drinking water health standards. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is and always has been, to provide to you 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 to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: *Mr. John E. Mokszycki, Water & Wastewater Superintendent, Town of Greenport Water Department, 600 Town Hall Drive, Hudson, NY 12534; Telephone # (518) 828-3400.* For questions concerning the Mt. Ida Water System please contact: *Mr. David Robinson, County Engineer/DPW Superintendent, 401 State Street, Hudson, NY 12534, Telephone # (518) 828-0871.* We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 1st Wednesday of each month, 7:00 PM at the Greenport Town Hall, Town Hall Drive, Hudson, NY 12534. Telephone number (518) 828-4656

WHERE DOES OUR WATER COME FROM?

The Town of Greenport draws its water from a ground water source. Groundwater or well water is stored below the surface of the earth in deep, porous rocks called "aquifers." Groundwater is purified naturally as it filters through layers of soil, clay, rock and sand. This process, known as "percolation" takes years to complete. As a result, groundwater requires less treatment than surface water. Greenport's main source of water derives from a 6-acre parcel of land located along Kashway Creek, known as the South Wells. At this site there are four drilled wells, approximately 300 feet deep, producing approximately 1,200 gallons per minute. The Fountain Head source located along NYS Route 23B has been removed from service. We also own 71 acres of property purchased from Andrew Wyda that connects to the six acre parcel where the South Wells are located. The property extends west from the South Wells property to Middle Road. The property was purchased for future well development and to protect the South Wells source.

Gaseous chlorine is added to the water, which is used for disinfection to protect against contamination from harmful bacteria and other organisms. We utilize a device called a "chlorinator" consisting of a combination of pressure reducing valves and mechanical diaphragms for measuring the rate of flow of the chlorine gas, and making an aqueous solution of the gas so it can be injected into the water. Chlorine is injected into a 9,000 gallon storage pit into which the well pumps discharge. When a well pump is called for, water from the discharge end of the pump creates a vacuum, drawing chlorine from the "chlorinator" which is connected to a 100-pound chlorine cylinder. This water is discharged into the pump pit and then into the distribution system and subsequently pumped to the 2 million gallon bubble tank, the Joslen Boulevard Tank (170,000 gallons) and the Ravish Road tank (1.3 million gallons) through the low level transfer pumps. The storage tank located at Ten Broeck Lane (145,000) gallons has been out of service. Two booster pump stations have been added to service customers that were previously serviced by the Ten Broeck Lane high level pumps. The Mt. Ida water system which uses a source located in North Claverack along Route 9H on 65 acres has been upgraded to serve the Commerce Park only. Although run as a separate system, it is connected to Greenport's main supply, so that in an emergency either source can be utilized. The same method is used to add the gaseous chlorine as is used for the South Wells. Chlorine is added to the water as it is pumped into the 3000 gallon pressure tank. The chlorinated water is then pumped into the distribution system.

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 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.

FACTS AND FIGURES

The Greenport Public Water Supply provides water through 1,249 service connections to a population of approximately 4,400 people. Our average daily demand is 538,093 gallons. Our single highest day was 990,000 gallons. In 2014 the South Wells System pumped 196,404,000 gallons of water and 144,363,567 gallons of water were recorded as metered usage by customers. As a result, 26.5% or 52,040,433 gallons was lost in the transmission and distribution system. This unaccounted water was used for fire fighting purposes, distribution system leaks and unauthorized use. The charge for water within the Town of Greenport when the Water District tax liability is included, the average charge for water delivered for a typical residential user using a \$150,000 assessment and 72,000 gallons of usage is \$5.16/1000 gallons.

The Mt. Ida System provides water through 19 service connections to a population of approximately 400 people. Our average daily demand is 21,300 gallons our single highest day was 42,000 gallons. In 2014 the Mt. Ida System pumped 7,765,550 gallons of water. Greenport charges \$5.00/1000 gallons to Columbia County WD#1 for water.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Greenport Public Water Supply routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, haloacetic acids, trihalomethanes volatile organic contaminants, and synthetic organic contaminants. In addition, we test (4 samples from the South Wells and 1 sample from Mt. Ida) for coliform bacteria each month. The table presented below depicts which contaminants were detected in your drinking water. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old and is noted. For a listing of the parameters we analyzed that were not detected along with the frequency of testing, for compliance with the NYS Sanitary Code, see Appendix A.

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 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 New York State Department of Health or the Columbia County Health Department (518) 828-3358.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables on pages 4 and 5, the Greenport South Wells and Mt. Ida System had no violations. We have learned through our monitoring and testing that some contaminants have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2014, 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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ON LEAD

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. The Town of Greenport 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 or at <http://www.epa.gov/safewater/lead>

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water, Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems.

A source water assessment provides information on the potential contaminant threats to public drinking water sources:

- ◆ each source water assessment will: determine where water used for public drinking water comes from (delineate the source areas)
- ◆ Inventory potential sources of contamination that may impact public drinking water sources
- ◆ Assess the likelihood of a source water area becoming potential contaminated

A SWAP summary for our water supply is attached to this report.

WATER CONSERVATION TIPS

The Greenport Public Water Supply encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- ◆ Only run the dishwasher and clothes washer when there is a full load
- ◆ Use water saving showerheads
- ◆ Water gardens and lawn for only a couple of hours after sunset
- ◆ Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
- ◆ Check faucets, pipes and toilets for leaks and repair all leaks promptly
- ◆ Take shorter showers

CAPITAL IMPROVEMENTS

In 2014, there were no major modifications made to the water system

CLOSING

Thank you for allowing us to continue providing your family 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 our customers. We ask that all our customers help us protect our water sources. Please call our office if you have questions.

TOWN OF GREENPORT SOUTH WELLS TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY1000238

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants (sample data from 3/5/14 unless otherwise noted)						
Arsenic	N	1.9	ppb	N/A	10	Naturally occurring
Chloride	N	81.6	ppm	N/A	250	Geology; Naturally occurring
Copper (samples from 7/14/14-8/18/14)	N	0.15	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Range of copper concentrations		ND-0.31				
Fluoride	N	120	ppb	N/A	2200	Erosion of natural deposits
Iron	N	365	ppb	N/A	300	Geology; Naturally occurring
Lead (samples from 7/14/14-8/18/14)	N	2 ³	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Range of lead concentrations		ND-5				
Manganese	N	151 ²	ppb	N/A	300	Geology; Naturally occurring
Nickel	N	2.5	ppb	N/A	100	Discharge from steel/metal factories
pH	N	7.21	units		6.5-8.5	
Sodium ¹	N	35.8	ppm	N/A	N/A	Geology; Road Salt
Sulfate	N	106	ppm	N/A	250	Geology;
Zinc	N	14	ppb	N/A	5000	Galvanized pipe; corrosion inhibitor
Disinfection Byproducts (samples from 7/12/11)						
TTHM [Total Trihalomethanes]	N	22.5	ppb	0	80	By-product of drinking water chlorination
HAA5 [Haloacetic Acids]	N	0.66	ppb	N/A	60	By-product of drinking water chlorination
Chlorine (average)	N	0.37	ppm	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
Range of chlorine residuals (based on daily testing)		0.10-0.90		N/A	4	
Radiological Contaminants (samples from 3/23/09 & 6/9/09)						
Gross Alpha (range of 2 samples)	N	ND-3.35	pCi/L	0	15	Erosion of natural deposits
Uranium (range of 2 samples)	N	0.41-0.45	ppb	0	30	Erosion of natural deposits

NOTES-

- The level presented represents the 90th percentile of 20 test sites. 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, 20 samples were collected at your water system and the 90th percentile value was the 18th sample with the third highest value (level detected 0.15 mg/l). The action level for copper was not exceeded at any of the sites tested.
- If iron and manganese are both present a total concentration of 500 ppb. Higher levels may be allowed by the when justified by the supplier of water.
- The level presented represents the 90th percentile of 20 test sites. The action level for lead was not exceeded at any of the 20 sites tested.
- Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.

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.

Picocuries per liter (pCi/L) - picocuries per liter is 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

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

Maximum Contaminant Level - 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 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.

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

N/A-Not applicable

MT. IDA TABLE OF DETECTED CONTAMINANTS Public Water Supply Identification Number NY1030073						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants (sample data from 3/5/14 unless otherwise noted)						
Barium	N	86.3	ppb	2000	2000	Geology; Naturally occurring
Chloride	N	33.6	ppm	N/A	250	Geology; Naturally occurring
Copper (samples from 7/14/14)	N	0.22 ¹	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Range of copper concentrations		0.05-0.31				
Nickel	N	1.8	ppb	N/A	100	Discharge from steel/metal factories
Nitrate (as Nitrogen)	N	2.3	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
pH	N	7.18	units		6.5-8.5	
Sodium ³	N	24.2	ppm	N/A	N/A	Geology; Road Salt
Sulfate	N	20.9	ppm	N/A	250	Geology;
Zinc	N	7	ppb	N/A	500	
Disinfection Byproducts (samples from 7/12/11)						
Chlorine (average)	N	0.81	ppm	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
Range of chlorine residuals (based on daily samples)		0.03-2.02		N/A	4	
TTHM [Total Trihalomethanes]	N	13.2	ppb	0	80	By-product of drinking water chlorination
HAA5 [Haloacetic Acids]	N	0.86	ppb	N/A	60	By-product of drinking water chlorination
Radiological Contaminants (samples from 2/5/09 3/23/09 & 6/9/09)						
Gross Alpha (range of values for 3 samples)	N	ND-6.30	pCi/L	0	15	Erosion of natural deposits

NOTES-

- The level presented represents the 90th percentile of the 5 samples collected. The number represents the average of the two highest levels detected. The action level for copper was not exceeded at any of the 5 sites tested.
- The level presented represents the 90th percentile of the 5 samples collected. The number represents the average of the two highest levels detected. The action level for copper was not exceeded at any of the 5 sites tested.
- Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.

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.

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

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

Maximum Contaminant Level - 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 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.

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

N/A-Not applicable

Appendix A

New York State Sanitary Code Compliance Monitoring Requirements- Compounds Analyzed that were Below Limits of Detection

TOWN OF GREENPORT TEST RESULTS-SOUTH WELLS					
Public Water Supply Identification Number NY1000238					
CONTAMINANT	MONITORING FREQUENCY		CONTAMINANT	MONITORING FREQUENCY	
Asbestos	Every 9 years; 5/4/11 Non-Detect		POC's (Volatile Organic Compounds)		
			Benzene	Trans-1,3-Dichloropropene	
Antimony	Monitoring requirement is 1 sample every 3 years Waiver from DOH		Bromobenzene	Ethylbenzene	
Arsenic			Bromochloromethane	Hexachlorobutadiene	
Barium			Bromomethane	Isopropylbenzene	
Beryllium			N-Butylbenzene	p-Isopropyltoluene	
Cadmium			sec-Butylbenzene	Methylene Chloride	
Chromium		Sample from 3/5/14		Tert-Butylbenzene	n-Propylbenzene
				Carbon Tetrachloride	Styrene
Mercury				Chlorobenzene	1,1,1,2-Tetrachloroethane
	Non-Detect		2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
Silver			4-Chlorotoluene	Tetrachloroethene	
Selenium			Dibromomethane	Toluene	
Iron			1,2-Dichlorobenzene	1,2,3-Trichlorobenzene	
Manganese			1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
			1,4-Dichlorobenzene	1,1,1-Trichloroethane	
			Dichlorodifluoromethane	1,1,2-Trichloroethane	
			1,1-Dichloroethane	Trichloroethene	
			1,2-Dichloroethane	Trichlorofluoromethane	
			1,1 Dichloroethene	1,2,3-Trichloropropane	
Color	Monitoring requirement is at State discretion Waiver from DOH		cis-1,2 Dichloroethene	1,2,4-Trimethylbenzene	
Cyanide			Trans-1,2-Dichloroethene	1,3,5-Trimethylbenzene	
Odor			1,2 Dichloropropane	m-Xylene	
			1,3 Dichloropropane	o- Xylene	
			2,2 Dichloropropane	p-Xylene	
			1,1 Dichloropropene	Vinyl Chloride	
			Cis-1,3-Dichloropropene	MTBE	
		Sample from 3/5/14			
	Non-Detect				
			E. coli	Non- Detect 4 samples/ month	
Disinfection Byproducts					
			Radiological Parameters		
			Gross Alpha-Beta Scan	Monitoring is 1 sample every 6- 9 years 2008 Non-Detect	
Turbidity	N/A		Radium 226		
Synthetic Organic Chemicals (Group I)		Synthetic Organic Chemicals (Group II)			
Alachlor	Aldicarb		Aldrin	Monitoring requirement is 1 sample every 18 months; Sample from 10/1/14	
Aldicarb Sulfoxide	Aldicarb Sulfone		Butachlor		
Atrazine	Carbofuran		Dalapon		
Chlordane	Dibromochloropropane		Di(2-ethylhexyl)phthalate		
2,4-D	Endrin		Dieldrin		
Ethylene Dibromide	Heptachlor		Diquat*		
Lindane	Methoxyhlor		Glyphosate*		
PCB's	Toxaphene		Hexachlorobenzene		
2,4,5-TP (Silvex)			Hexachlorocyclopentadiene		
			Methomyl		
			Metribuzin	Non-Detect *State waiver does not require monitoring these compounds	
			Pichloram		
			Simazine		
			2,3,7,8-TCDD (Dioxin)*		

**Greenport WD No. 1
NY1000238
Source Water Assessment Summary**

The NYSDOH has completed a source water assessment for this source, 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.

As mentioned before, our water is derived from 4-drilled wells. The source water assessment has rated these wells as having high to very high susceptibility to microbials, industrial solvents, nitrates and other industrial contaminants. The wells yield or pump greater than 100 gpm from an unconfined aquifer. Please note that our water is disinfected to ensure that the finished water delivered into your home meets the New York State's 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. A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.

**Mount Ida
NY1030073
Source Water Assessment Summary**

The NYSDOH has completed a source water assessment for this source, 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.

As mentioned before, our water is derived from a caisson well. The source water assessment has rated this well as having medium to high susceptibility to microbials, nitrates, industrial solvents, and other industrial contaminants. The well draws from an unconfined aquifer with high hydraulic conductivity. Please note that our water is disinfected to ensure that the finished water delivered into your home meets the New York State's 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. A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.