

ANNUAL WATER QUALITY REPORT FOR CALENDAR YEAR 2009
POUGHKEEPSIE TOWNWIDE WATER DISTRICT
1 Overocker Road
Poughkeepsie, New York
Federal Public Water Supply ID #NY1302812

Introduction:

To comply with State regulations, the Poughkeepsie Townwide Water District annually issues 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. 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.

Sampling and analyses are carried out routinely as directed by the Dutchess County Health Department and the New York State Department of Health and currently meet the drinking water standards.

If you have any questions about this report or concerning your drinking water, please contact Keith Ballard, Department Manager, at the Town of Poughkeepsie Water Department, at (845) 462-6535, or the Dutchess County Health Department at (845) 486-3404. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled meetings. Town of Poughkeepsie Board and Committee of the Whole meetings are scheduled on Wednesdays at 7:00 pm in the Town Hall at One Overocker Road in Poughkeepsie; please phone the Water Department to confirm meetings at (845) 462-6535. You may also visit the Joint Town/City Water Treatment Facility website at <http://www.pokwater.com>. Learn more about the water treatment plant by attending any of the regularly scheduled Joint Water Board meetings held the first Tuesday of every month in the conference room at the Joint Water Plant (behind Marist College); for further information about the City/Town Water Treatment Facility, telephone the Joint Water Board Administrator's office at (845) 451-4173, ext. 24.

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; Giardia and Cryptosporidium; 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.

The primary source of water for the Poughkeepsie Townwide Water District is treated surface water (Hudson River) which is purchased from the jointly owned Town and City of Poughkeepsie Water Treatment Facility, where the water is filtered, aerated, disinfected with chloramines and ultraviolet light, and treated with orthophosphate and sodium hydroxide to reduce corrosion of lead piping (for further information, please refer to the contact information for the Poughkeepsie Water Treatment Facility in the Introduction section of this report). Results of testing for the Water Treatment Facility are attached in an addendum to this report.

Water Source Restriction

In 2009, the Frank Brothers Wells, the Townwide Water District's backup source, were disconnected by order of the Dutchess County Health Department. Please note that we are required to present test data for these wells for the past five years, even though none of the water from the wells was used to supplement the Townwide Water District in 2009.

An extensive engineering study of these wells performed in 1991 determined that surface water does not influence the quality of the Town's well water, and therefore filtration of the well source is not necessary.

The New York State Department of Health has completed a source water assessment for the system's wells, 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 source water assessment has rated our well water source as having an elevated susceptibility to microbials, nitrates, industrial solvents and other industrial contaminants. These ratings are due primarily to the close proximity of the wells to permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government), an inactive hazardous waste site and the associated industrial activities, as well as the residential land use and related activities in the assessment area. In addition, the wells draw from fractured bedrock and the overlying soils may not provide adequate protection from potential contamination.

The 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 New York State Department of Health's Source Water Assessment can be obtained by contacting us, as noted below:

Town of Poughkeepsie Water Department
c/o Town Offices
One Overocker Road
Poughkeepsie, NY 12603 phone: 845-462-6535

Facts and Figures

The Poughkeepsie Townwide Water District serves a population of approximately 45,000 through 10,535 service connections. In 2009, An average volume of approximately 4.659 million gallons per day (MGD) or 1,700.82 million gallons per year (MGY) was withdrawn from the sources to serve the Poughkeepsie Townwide Water District and approximately 3.711 MGD (1,354.84 MGY) were delivered to its customers. The difference is approximately 0.947 MGD (345.98 MGY), accounted for as follows: 0.425 MGD from 20 water main breaks, 0.280 MGD from aggressive hydrant flushing, and 0.242 MGD from line flushing, fire fighting and meter inaccuracies. The Town of Poughkeepsie employs an on-going leak detection program to locate any system leaks in a timely manner.

Water Cost

In 2009, the Town of Poughkeepsie billed its users based on quarterly water meter readings at the rate of \$1.50 per 100 cubic feet of water (or 748 gallons), with \$7.00 being the minimum rate for 0-400 cubic feet of water consumed.

Facility Modification

In February 2008, the Poughkeepsie Water Treatment Facility stopped adding fluoride to the water supply. Please read the section on "Information on Fluoride Addition" near the end of this report for further information on how this may affect you.

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 Bacteria, Turbidity, Orthophosphate, Lead and Copper, Residual

Chlorine, Total Trihalomethanes and Haloacetic Acids. 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.

The test data presented in this report cover solely the Poughkeepsie Townwide Water District distribution system and data from the Town's wells, and does not reflect data from the Town/City Water Treatment Facility. Information about the water supplied by the Town/City Water Treatment Facility may be found in the Annual Water Quality Report published by the Joint Town/City Water Board.

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 at 800-426-4791, or the Dutchess County Health Department at 845-486-3404, or by viewing the EPA drinking water website, www.epa.gov/safewater, and the New York State Health Department website, www.health.state.ny.us.

Table of Detected Contaminants, Poughkeepsie Townwide Water District, 2009							
Frank Bros. Wells							
Contaminant	Violation Yes/No	Sample Date(s)	Level Detected	Unit of Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Radioactive Contaminants							
Gross alpha activity (including radium 226 but excluding radon and uranium)	No	3/28/07	0.9	pCi/L	0	MCL = 15 ⁹	Erosion of natural deposits
Beta particle and photon activity from manmade radionuclides	No	3/28/07	Highest level=3.4 Range= 1.7 to 3.4	pCi/L	0	MCL = 50 ¹⁰	Decay of natural deposits and man-made emissions.
Combined radium 226 and 228	No	3/28/07	Highest level=1.3 Range = 0.01 to 1.3	pCi/L	0	MCL = 5	Erosion of natural deposits
Uranium	No	3/28/07	Highest level=1.3 Range= 1.1 to 1.3	ug/L ¹¹	0	MCL = 30	Erosion of natural deposits
Inorganic Contaminants							
Barium	No	5/1/07	Highest level = 0.040 Range= 0.024 to 0.040	mg/L	2	MCL = 2	Discharge of drilling wastes; erosion of natural deposits
Calcium	No	5/1/07	Highest level = 82.9 Range = 77.6 to 82.9	mg/L	N/A	N/A	Naturally occurring
Chloride	No	5/1/07	Highest level=120 Range = 75 to 120	mg/L	N/A	MCL = 250	Naturally occurring or indicative of road salt contamination.
Hardness	No	5/1/07	Highest Level = 300 Range = 282 to 300	mg/L	N/A	N/A	Naturally occurring
Continued on next page							

Table of Detected Contaminants, Poughkeepsie Townwide Water District, 2009 Frank Bros. Wells							
Contaminant	Violation Yes/No	Sample Date(s)	Level Detected	Unit of Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Iron	No	5/1/07	13	ug/L	N/A	MCL = 300	Naturally occurring
Magnesium	No	5/1/07	Highest level=22.9 Range = 20.1 to 22.9	mg/L	N/A	N/A	Naturally occurring
Nitrate	No	5/1/07	Highest level = 2.48 Range = 1.51 to 2.48	mg/L	10	MCL = 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	No	5/1/07	Highest level = 84.4 Range = 52.8 to 84.4	mg/L	N/A	(see health effects ⁵)	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate	No	5/1/07	Highest level = 29 Range = 28 to 29	mg/L	N/A	MCL = 250	Naturally occurring
Zinc	No	5/1/07	Highest level = .008 Range = .007 to .008	mg/L	N/A	MCL = 5	Naturally occurring.

Table of Detected Contaminants, Poughkeepsie Townwide Water District, 2009 Water Distribution System							
Contaminant	Violation Yes/No	Sample Date(s)	Level Detected	Unit of Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	No	July 2009	1.78% (One positive sample out of 56)	CFU per 100 mL	0	MCL = >5% positive samples ¹ (more than 2 positive samples per month)	Naturally present in the environment.
Total Coliform Bacteria	No	Sept. 2009	1.85% (One positive sample out of 54)	CFU per 100 mL	0	MCL = >5% positive samples ¹ (more than 2 positive samples per month)	Naturally present in the environment.
Lead and Copper Monitoring							
Copper	No	Sept. 2009	0.083 ³ Range = ND to 0.163	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits.
Lead	No	Sept. 2009	5 ⁴ Range = ND to 8	ug/L	0	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits
Continued on next page							

Table of Detected Contaminants, Poughkeepsie Townwide Water District, 2009 Water Distribution System							
Contaminant	Violation Yes/No	Sample Date(s)	Level Detected	Unit of Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Inorganic Contaminants							
Ammonia, Free	No	2/16/07 3/8/07 4/17/07 5/17/07	Average = 0.2 Range = ND to 0.6	mg/L	N/A	N/A	Component of Chloramine, which is added to the distribution system as a disinfectant.
Color	No	3 per week ^a	Average = 2.55 Range = ND to 10	PCo	N/A	MCL = 15	Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant byproducts such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.
Fluoride	No	5/1/07 11/6/07	Average = 0.40 Range = ND to 0.86	mg/L	N/A	MCL = 2.2	Water additive that promotes strong teeth
Nitrate	No	12/06	0.48	mg/L	10	MCL = 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Orthophosphate (reported as Phosphorus)	N/A	3 per week	Average = 0.65 Range = 0.47 to 1.12	mg/L	N/A	N/A	Orthophosphate is added at the City/Town Water Treatment Facility to inhibit corrosion of lead piping in the distribution system.
Turbidity	No	5 per week	Average = 0.11 Range = ND to 0.7	NTU	N/A	MCL = 5.0 ²	Soil runoff
Disinfection Byproducts							
Total Chlorine Residual	No	50 per month	Average = 1.6 Range = ND to 2.5	mg/L	N/A	MCL = 4 ^b	Water additive used to control microbes.
Total Trihalomethanes (TTHMs -- chloroform, bromo-dichloromethane, dibromochloromethane, and bromoform)	No	2/09 5/09 8/09 11/09	Highest Annual Average = 46 Range of detects = 19.3 to 74.3	ug/L	N/A	MCL = 80 for four-quarter average ^{7, 7A}	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)	No	2/09 5/09 8/09 11/09	Highest Annual Average = 28 Range of detects = 17.9 to 31.6	ug/L	N/A	MCL = 60 for four-quarter average ^{7, 7A}	By-product of drinking water disinfection needed to kill harmful organisms.

Footnotes:

1. A violation occurs at systems collecting 40 or more samples per month when more than 5% of the total coliform samples are positive. We are required to collect 50 samples per month.
2. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of the filtration system of the City/Town Water Treatment Facility. In accordance with State regulations for distribution systems, we test for turbidity 5 days/week, 52 weeks/year. Results are reported for the year. Since the Town purchases its water from the Town/City Water Treatment Facility, Treatment Technique regulations do not apply to the Town's distribution system. State regulations for distribution systems require that the monthly average for turbidity must be below 5 NTU.

3. The level presented represents the 90th percentile of the 30 sites tested for copper. In this case, 30 samples were collected throughout the distribution system and the 90th percentile was the 27th highest value (0.083 mg/L). The action level for copper was not exceeded at any of the sites tested.
4. The level presented represents the 90th percentile of the 30 sites tested for lead. In this case, 30 samples were collected throughout the distribution system and the 90th percentile was the 27th highest value (5 ug/L). The action level for lead was not exceeded at any of the sites tested.
5. 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.
6. The value reported represents the Maximum Residual Disinfectant Level (MRDL) which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.
7. This level represents the running annual average calculated from data collected. Some data used to calculate the running annual average may be carried over from the previous year's testing.
- 7A. In 2009 we performed additional TTHM and Haloacetic Acid testing as required by the EPA's Initial Distribution System Evaluation (IDSE) plan, referred to as DBP II samples. Regulations require us to include the individual sample results of those analyses *for determining the range of results* for this report. The range of those results fell within the range of the regular monitoring results reported in the table.
8. Color is tested as a corollary to the orthophosphate test. Orthophosphate is added at the City/Town Water Treatment Facility to inhibit corrosion of lead piping in the distribution system. No color was detected in any of the samples taken in 2009. The level of color presented in the Table represents data from 2008.
9. An MCL violation occurs when the annual composite of four quarterly samples or the average of the analysis of four quarterly samples exceeds the MCL.
10. The State considers 50 pCi/L to be the level of concern for beta particles.
11. Uranium results are reported by the testing laboratory in pCi/L units. To convert pCi/L to ug/L as required for this report, we multiplied the results in pCi/L by a conversion factor of 1.49.

Definitions:

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

CFU/100 mL: Colony Forming Units per 100 milliliters of sample.

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.

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.

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).

N/A: Not Applicable.

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

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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.

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

PtCo: Platinum Cobalt Unit, a measure of color in water

What does this information mean?

As you can see by the table, our system had no violations in 2009. We learned through our testing that some contaminants have been detected; however, these contaminants were detected at levels below the State MCLs.

As listed in the table, we experienced an occurrence of microbiological contamination. In both July and September 2009, total coliforms were detected in one of the 50 routine monthly compliance samples collected from our system. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Four additional samples were subsequently collected in both July and September, and total coliforms were not detected in any of those samples. Since total coliforms were detected in less than 5% of the samples collected during each month, the system did not have an MCL violation. It should be noted that E. Coli, associated with human and animal fecal waste, was not detected in any of the samples collected.

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.

Our annual Dutchess County Health Department inspection uncovered one problem; the gate to the Route 44 Water Storage Tank was found to be unlocked at the time of the inspection. In response to this violation, the faulty lock has been replaced and police patrols in the area have been increased. Plans are being developed to construct fencing around the entire Water Storage Tank area in 2011.

We must provide information on lead in drinking water even though our testing showed no problems. Please take a moment to read the following information on lead:

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 Poughkeepsie Townwide 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>.

Information on Fluoride Addition

Up until February 2008, our system was one of the many drinking water systems in New York State that provided drinking water with a controlled, low level of fluoride for consumer dental health protection. The fluoride was added by the Joint Town and City of Poughkeepsie Water Treatment Facility before it was delivered to us. 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 provided optimal dental protection, the State Department of Health required that the Joint Town and City of Poughkeepsie Water Treatment Facility monitor fluoride levels on a daily basis. During the period when fluoride was being added to the water, no monitoring test results showed levels of fluoride which approached the 2.2 mg/L MCL. In February 2008, the Joint Town and City of Poughkeepsie Water Treatment Facility stopped adding fluoride to the water. You may want to discuss this with your family dentist to see if some other form of fluoride supplement should be considered for your dental protection.

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 at 1-800-426-4791.

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; 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.
- Water your garden and lawn only when necessary. Remember that a layer of mulch in the flower beds and garden is not only aesthetically pleasing but will help retain moisture.
- Turn off the tap when brushing your teeth.
- 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.
- 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.

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 and our way of life. Please call us at the number listed at the beginning of this report if you have any questions.

ANNUAL WATER QUALITY REPORT FOR CALENDAR YEAR 2009
 POUGHKEEPSIE TOWNWIDE WATER DISTRICT
 1 Overocker Road
 Poughkeepsie, New York
 Federal Public Water Supply ID #NY1302812
 ADDENDUM

SUMMARY OF REGULATED CONTAMINANTS DETECTED IN POUGHKEEPSIES' WATER TREATMENT FACILITIES PLANT EFFLUENT
 (PWS # 1302774) & CITY OF POUGHKEEPSIE DISTRIBUTION SYSTEM (PWS # 1330291)

Poughkeepsies' Water Treatment Facility
 PWS # 1302774
 1431 North Road
 Poughkeepsie, NY 12601
 Licensed Operator: Paul Lill

City of Poughkeepsie's Distribution System
 PWS# 1330291
 PO Box # 300
 Poughkeepsie, NY 12602
 Licensed Operator: Nelson Wallace

Microbiological Contaminants

CONTAMINANT	NYSDOH MCL	USEPA MCLG	VIOLATION YES/NO	# OF SAMPLES	RANGE	AVERAGE	SOURCE IN DRINKING WATER
<u>Total Coliform Bacteria</u>							
PWTF PLANT EFFLUENT	5% ¹	0%	NO	185	n/a	n/a	Naturally Present in the Environment
CITY of POUGHKEEPSIE	5% ¹	0%	NO	618	n/a	n/a	
<u>TURBIDITY NTU</u>							
PWTF PLANT EFFLUENT	95% OF SAMPLES < 0.3NTU ²	95% OF SAMPLES < 0.3NTU ²	NO	Continuous	0.02-0.30 ntu	0.04 ntu	SOIL RUNOFF, FLUSHING HYDRANTS
CITY of POUGHKEEPSIE	Monthly Average >/= 5.0 NTU ³	n/a	NO	947	0.05-39.9 ntu	0.64 ntu	

Inorganic Contaminants mg/l (Unless otherwise noted)

<u>BARIUM</u>							
PWTF PLANT EFFLUENT	2	2	NO	1	0.0208	n/a	Erosion of Natural Deposits
CITY of POUGHKEEPSIE	2	2	n/a	0	n/a	n/a	
<u>COPPER</u>							
PWTF PLANT EFFLUENT	Action Limit=1.3 ⁴	0	n/a	n/m	n/a	n/a	Erosion of Natural Materials and Corrosion of house hold plumbing
CITY of POUGHKEEPSIE		0	NO	120	0.005-0.728	0.028	
<u>CHLORINE</u>							
PWTF PLANT EFFLUENT	4	n/a	NO	Continuous Monitoring	1.92-4.4	2.51	Disinfectant Additive
CITY of POUGHKEEPSIE	4	n/a	NO	950	0.03-3.7	1.90	
<u>LEAD</u>							
City Round 1	90 th Percentile Action	0	NO	60	<0.001- 0.04	0.008 ⁵	Erosion of Natural Materials and Corrosion of

Limit=0.015⁴

house hold plumbing

Runoff from fertilizer; Leaching from septic tanks; Sewage; Erosion of Natural Materials

<u>NITRITE</u>						
PWTF PLANT EFFLUENT	10	10	NO	117	0.24-0.63	0.38
CITY of POUGHKEEPSIE	10	10	NO	570	0.24-0.64	0.38
<u>NITRATE</u>						
PWTF PLANT EFFLUENT	1	1	NO	118	n/a	<0.010
CITY of POUGHKEEPSIE	1	1	NO	574	<0.010-0.64	0.05

Volatile Organic Contaminants⁶ ug/l

CONTAMINANT	NYSDOH MCL	USEPA MCLG	VIOLATION YES/NO	# OF SAMPLES	RANGE	AVERAGE	SOURCE IN DRINKING WATER
<u>Disinfection By-Products⁷</u>							
<u>haloacetic Acids HAA5 (mon-di, & tri chloroacetic acid, and mono, & di bromoacetic acid)</u>							
PWTF PLANT EFFLUENT	60	n/a	n/a	n/a	n/a	n/a	Naturally Occurring
CITY of POUGHKEEPSIE	60	n/a	NO	20	8.3-26.6	17.3	
<u>trihalomethane THM (chloroform, bromodichloromethane, dibromochloromethane, & bromoform)</u>							
PWTF PLANT EFFLUENT	80	n/a	NO	1	1.4-21.2	10.0	Naturally Occurring
CITY of POUGHKEEPSIE	80	n/a	NO	20	24.7-50.7	38.9	

FOOTNOTES:

1. A violation occurs when more than 5% of the total number of samples collected are Total Coliform positive.
2. Turbidity is a measure of the cloudiness of the water. It is used as an indicator for overall water treatment. State and Federal regulations require that turbidity must always be less than 1.0ntu leaving the treatment plant.
3. A violation occurs when the monthly average of the results of all distribution samples collected in any calendar month exceeds 5.0 NTU round off to the nearest whole number
4. A violation occurs when the 90 percentile calculated on all samples collected for each sampling event exceeds the Action Limit of 0.015mg/l for lead and 1.3 mg/l for copper.
5. This value is not the average lead concentration for the City of Poughkeepsie, rather the 90% value.
6. Annually we test for over 120 compounds in both our source and finished water. For a complete list of Synthetic and Volatile Organic Compounds tested for please visit our web site at www.pokwater.com
7. Range for disinfection byproducts is based on the average of 4 samples collected quarterly. The average is calculated from the running annual average (RAA) which is the average of the last 4 quarters sampled.

TABLE DEFINITIONS:

MAXIMUM CONTAMINATE LEVEL (MCL): The highest level of a contaminate that is allowed in the drinking water.

MAXIMUM CONTAMINATE LEVEL GOAL (MCLG): The level of a contaminate in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

NEPHELOMETRIC TURBIDITY UNIT (NTU): A measure of the clarity of the water. Turbidity in excess of 5.0 NTU is just noticeable to the average person.

MILLIGRAM PER LITER (mg/l): Corresponds to one part of a liquid in one million parts of another liquid (parts per million=ppm)

MICROGRAMS PER LITER (ug/l): Corresponds to one liquid part in one billion parts of another liquid (parts per billion= ppb).

Salt Front

Our water is taken from the Hudson River Estuary, which is subject to increased chloride and sodium levels during low rainfall periods. In 2009, we did not experience a salt front episode (defined by USGS as Chloride levels exceeding 100mg/l) at our facility, in which we were required to adjust pumping, treatment, or issue public notification for elevated sodium levels. We are not required to monitor sodium on regular bases; rather we use conductivity and chloride as a surrogate. Last year the average plant effluent chloride was 35.5mg/l (range 24.5-49.5) which did not trigger additional sodium monitoring.

During normal water years the sodium level varies from 15 – 25 mg/L with higher levels occurring during periods of low rainfall. **Customers that are on a salt restricted diet should consult with their physician concerning salt in their drinking water.** Information concerning sodium levels in your water can be obtained at any time by contacting our Chief Operator, Matthew Geho at 451-4173 x 2012.