

ANNUAL WATER QUALITY REPORT FOR CALENDAR YEAR 2021
CITY OF POUGHKEEPSIE
26 Howard Street
Poughkeepsie, New York
Federal Public Water Supply ID #NY1330291

Introduction:

To comply with State regulations, the City of Poughkeepsie annually issues this 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.

We want you to be informed about your drinking water. If you have any questions about this report or concerning your drinking water, please contact James Kane, Water Distribution Operator, Veolia North America, (845) 471-8165, or the Dutchess County Health Department at (845) 486-3404. If you want to learn more, please attend any of the regularly scheduled Joint Water Board meetings held the first Tuesday of every month in the conference room at the Poughkeepsies' Water Treatment Facility (behind Marist College). For further information about the Poughkeepsies' Water Treatment Facility, telephone the Joint Water Board Administrator, Randy Alstadt at (845) 451-4173, ext. 2003. You may also visit the Poughkeepsies' Water Treatment Facility website at <http://www.cityofpoughkeepsie.com/watertreatment>. This report can be found on the City of Poughkeepsie's web site <http://www.cityofpoughkeepsie.com/departments/dpw/waterdistribution>.

Where Does Our Water Come From?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The source of water for the City of Poughkeepsie is treated surface water (Hudson River) which is purchased from the jointly owned town and city treatment plant, Poughkeepsies' Water Treatment Facility. The Poughkeepsies' Water Treatment Facility utilizes conventional, state of the art, filtration process to treat the water supply. This process includes chemical application of polyaluminum chloride to stabilize the small particles in the raw water supply. Once stabilized, the particles are combined with an organic polymer and previously settled solids, then slowly mixed to form larger particles. The larger particles are then removed through settling. Occasionally carbon dioxide is added prior to this process to aid coagulation for enhanced removal of organic compounds. Following the settling process, ozone is added to assist in the breakdown of organic compounds. The water is then passed through filters made of biologically activated carbon and sand. These filters help polish the water and reduce the organic compounds that can cause disinfection byproducts when water is chlorinated. Disinfection, the process used to kill disease-producing organisms, is accomplished through application of ultraviolet light followed by a carefully monitored chlorination process. Post treatment includes the addition of phosphoric acid and sodium hydroxide. Phosphoric acid is added at 2.3 mg/L to reduce corrosion of customer's lead piping and fixtures. Sodium hydroxide is added when necessary to increase the treated water to a pH of 7.7 in effort to minimize corrosion of pipes within the distribution system and customers plumbing.

Facts and Figures

The City of Poughkeepsie Water Distribution System provides both the Town and City water supply. The water produced and pumped into the distribution system in 2021 by the Poughkeepsies' Water Treatment Facility totaled 3,926,507,200 gallons. The amount of water metered out of the distribution system after production totaled 3,172,338,312 gallons. The remaining 754,168,888 gallons is the Non-Revenue Water (NRW) total for the City of Poughkeepsie Distribution System. This unaccounted-for water consists of both current annual losses and unavoidable annual losses. Current Annual Real Loss (CARL) include system water use during the Poughkeepsie Fire Hydrant testing program conducted by the PFD, losses from annual leak repairs and main breaks, water quality flushing of mains and daily sampling. With CARL losses applied to the NRW total, the Unavoidable Annual Real Loss (UARL) made up of leakage per mile of water mains, service connections, water meter errors, leakage along the miles of service connections and service pipes would reduce NRW further, leaving 77 million gallons as NRW.

Water Cost

In 2021 all City customers are billed in units of 748 gallons per unit at a metered use cost of \$4.70 per unit (\$0.06283/gal). In the last 2021 quarter it is reported that 7,217 water bills were mailed out to metered City Accounts.

Facility Modification

Improvements in the City of Poughkeepsie's Water Distribution System in 2021 included 5,023 feet of new 8 inch DI water main, 52 each of 8 inch line valves and 22 new fire hydrant assemblies associated with the modifications.

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, Bromate, 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 City of Poughkeepsie distribution system. An addendum to this report contains data from the Poughkeepsies' Water Treatment Facility. Additional information about the water supplied by the Poughkeepsies' 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.ny.gov.

Salt Front Information

Our water is taken from the Hudson River Estuary, which is subject to increased chloride and sodium levels during low rainfall periods. During 2021, the facility did not experience a salt front episode (defined by USGS as chloride levels exceeding 100 mg/L). The plant effluent was tested for sodium 13 times in 2021 with values ranging from 14.7 mg/L to 41.3 mg/L and an average of 25.79 mg/L.

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 sodium in their drinking water.

Information concerning sodium levels in your water can be obtained at any time by contacting the Water Plant Administrator, Randy Alstadt at 451-4173 x 2003.

EPA's Unregulated Contaminant Monitoring Rule 4 (UCMR4)

The purpose of the Unregulated Contaminant Monitoring Rule is to assist the EPA in determining the occurrence of suspected contaminants in drinking water and whether regulation is required. Every five years a new list suspected contaminants is developed. The contaminants are not regulated by the EPA or state and therefore do not currently have set drinking water standards. UCMR4 testing occurred in 2019 from February through August, and in 2020 from June through September. Contaminants detected are listed in the table. For more information on the testing and results please contact the department manager listed at the beginning of this report.

Table of Detected Contaminants, City of Poughkeepsie, 2021							
Water Distribution System							
Contaminant	Violation Yes/No	Sample Date(s) month/year	Level Detected	Unit of Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Microbial Contaminants							
Total Coliform	No	40 per month	3 positive sample 6/22/2021 6/22/2021 9/20/2021	N/A	N/A	A violation occurs when more than 5% of samples collected in each month are positive for Total Coliform	Naturally present in the environment.
Lead and Copper Monitoring							
Copper	No	9/2/20 thru 9/22/20	0.058 ¹ Range = ND to 0.221	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits.
Lead	No	9/2/20 thru 9/22/20	1.8 ² Range = ND to 84	ug/L	0	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits
Inorganic Contaminants							
Orthophosphate (reported as Phosphorus)	N/A	1 per week	Average = 0.65 Range = 0.59 to 0.97	mg/L	N/A	N/A	Orthophosphate is added at the Poughkeepsies' Water Treatment Facility to inhibit corrosion of lead piping in the distribution system.
Turbidity	No	5 per week	Average = 0.15 Range = ND to 7.38	NTU	N/A	MCL = 5.0 ³	Soil runoff
Disinfection Byproducts							
Free Chlorine Residual	No	Minimum of 40 per month	Average = 1.38 Range = 0.27 to 4.6	mg/L	N/A	MCL = 4 ⁴	Water additive used to control microbes.
Total Trihalomethanes (TTHMs -- chloroform, bromo-dichloromethane,	No	2/10/21 5/12/21 8/11/21 11/10/21	Stage 2 Calculation ⁵ Highest LRAA = 53.9 (Range of detects = 13.1 – 95.5)	ug/L	N/A	MCL = 80 for four-quarter average	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

dibromochloro-methane, and bromoform)							
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)	No	2/10/21 5/12/21 8/11/21 11/10/21	Stage 2 Calculation ⁵ Highest LRAA = 20.95 (Range of detects = 7.79 – 37.5)	ug/L	N/A	MCL = 60 for four-quarter average	By-product of drinking water disinfection needed to kill harmful organisms.
Unregulated Contaminant Monitoring Rule (UCMR4)							
Bromochloroacetic acid	No	2/13/19 5/22/19 8/15/19	Average = 3.5 Range = 1.80 to 5.97	ug/L	N/A	N/A	By-product of drinking water disinfection needed to kill harmful organisms.
Bromodichloroacetic acid	No	2/13/19 5/22/19 8/15/19	Average = 3.23 Range = 1.97 to 5.46	ug/L	N/A	N/A	By-product of drinking water disinfection needed to kill harmful organisms.
Chlorodibromoacetic acid	No	2/13/19 5/22/19 8/15/19	Average = 1.04 Range = .061 to 1.45	ug/L	N/A	N/A	By-product of drinking water disinfection needed to kill harmful organisms.

Footnotes:

1. The level presented represents the 90th percentile of the sites tested for copper. In this case, 30 samples were collected throughout the distribution system and the 90th percentile was the 227th highest value (0.058 mg/L). The action level for copper was not exceeded at any of the sites tested.
2. The level presented represents the 90th percentile of the sites tested for lead. In this case, 30 samples were collected throughout the distribution system and the 90th percentile was the 27th highest value (1.8 µg/L). The action level was exceeded at one of the locations tested.
3. 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 Poughkeepsies’ 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 City purchases its water from the Poughkeepsies’ Water Treatment Facility, Treatment Technique regulations do not apply to the City’s distribution system. State regulations for distribution systems require that the monthly average for turbidity must be below 5 NTU.
4. 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. The MRDL is based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the system.
5. The regulation requires a Locational Running Annual Average (LRAA) be calculated at each site by averaging the results of the 4 most recent quarters. The LRAA reported in this table is the highest LRAA obtained in 2021.

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.

Running Annual Average (RAA): This value is determined by first calculating the quarterly average of all 4 locations sampled and then averaging the 4 most recent quarterly averages.

Locational Running Annual Average (LRAA): This value is determined by averaging the 4 most recent quarterly results from one location.

What does this information in the table mean?

As you can see by the table, our system had no violations in 2021. We learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the state.

In September 2021 total coliform bacteria were detected in 2 of the routine monthly compliance samples collected at our system. In September 2021 total coliform bacteria were detected in 1 of the routine monthly compliance samples collected at 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. Additional samples were subsequently collected, and total coliforms were not detected in those samples. Since total coliforms were detected in less than 5% of the

samples collected that 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.

Information on Lead

We must provide information on lead in drinking water even though our last round of 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 City of Poughkeepsie 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

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 Poughkeepsies' 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 Poughkeepsies' 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.

Is our water system meeting other rules that govern operations?

During 2021, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

Do I need to take special precautions?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Why Save Water? How Do I 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 firefighting 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.

Addendum

**Poughkeepsies' Water Treatment Facility
Table of Detected Contaminants 2021**

Contaminant	Violation Yes/No	Sample Date(s)	Level Detected	Unit of Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Plant Effluent - Inorganic Contaminants							
Orthophosphate (reported as Phosphorus)	N/A	2 per day	Average = 0.605 Range = 0.257 to 1.14	mg/L	N/A	N/A	Orthophosphate is added at the Poughkeepsies' Water Treatment Facility to inhibit corrosion of lead piping in the distribution system.
Total Organic Carbon	N/A	1 per week	Average = 1.55 Range = 1.09 to 2.09	mg/L	N/A	N/A	Naturally present in the environment
Turbidity (Plant Effluent)	No	Continuous Monitoring	Average = 0.046 Range = 0.033 to 0.12	NTU	N/A	MCL = 1 NTU monthly average ¹ MCL = 5 NTU two day average	Soil runoff
Turbidity (Filter Effluent)	No	Continuous Monitoring	Average = 0.0416 Range = 0.016 to 0.215	NTU	N/A	TT = 95% of samples < 0.3 NTU ²	Soil runoff
Aluminum	No	1 per week	Average = 25.3 Range = ND to 72	ug/L	200	N/A	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Barium	No	9/23/21	0.0174	mg/L	2	MCL = 2	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Bromate	No	Monthly	Average = 5.5 Range = ND to 22.3 ³	µg/L	N/A	MCL = 10 Annual average	By-product of drinking water disinfection at treatment plants using Ozone.
Calcium	No	8/19/21	62	mg/L			
Chlorate	No	Monthly	Average = 182.9 Range = 98 to 271	µg/L	N/A	N/A	By-product of drinking water disinfection at treatment plants using sodium hypochlorite.
Chloride	No	9/23/21	41.4	mg/L	250	N/A	Naturally occurring or indicative of road salt contamination
Iron	No	8/19/21	72.8	ug/L	N/A	300 ⁴	Naturally occurring
Magnesium	No	8/19/21	17	mg/L	N/A	N/A	
Manganese	No	8/19/21	44.9	ug/L	N/A	N/A	Naturally occurring; indicative of landfill contamination
Nitrate	No	9/23/21	0.47	mg/L	10	MCL = 10	Runoff from fertilizer, Leaking septic tanks, sewage, erosion of natural deposits
Sodium	No	Monthly	Average = 25.79 Range = 14.7 to 41.3	mg/L	N/A	N/A ⁵	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate	No	9/23/21	7.0	mg/L	N/A	MCL = 250	Naturally occurring
Plant Effluent - Disinfectants							
Free Chlorine Residual	No	Continuous Monitoring	Average = 2.64 Range = 1.74 to 3.55	mg/L	N/A	MCL = 4 ⁶	Water additive used to control microbes.
Plant Effluent - Disinfection Byproducts							
Total Trihalomethanes (chloroform, bromo-dichloromethane, dibromochloro-methane, and bromoform)	No	02/12/21 05/12/21 08/11/21 11/10/21	Stage 2 Calculation ⁷ Highest LRAA = 6.82 (Range of detects = 0.78 – 10.7)	µg/L	N/A	MCL = 80 for four-quarter average	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	02/12/21 05/12/21 08/11/21 11/10/21	Stage 2 Calculation ⁷ Highest LRAA = 6.21 (Range of detects = 2.97 – 6.4)	µg/L	N/A	MCL = 60 for four-quarter average	By-product of drinking water disinfection needed to kill harmful organisms.
Plant Effluent – Synthetic Organic Contaminants							
Perfluorooctanoic acid (PFOA)	No	2/8/2021 5/19/2021 9/7/2021 11/23/2021	Average = 1.48 Range = ND to 2.8	ng/L	N/A	MCL = 10	Released into the environment from widespread use in commercial and industrial applications.

1. Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement on the plant effluent (0.12 NTU) occurred on 8/12/21. An MCL violation occurs when the average of all daily entry point analyses for the month exceed the MCL of 1 NTU or when the daily two-day average exceeds 5 NTU.
2. The turbidity of each filter is monitored to determine treatment compliance. State regulations require that turbidity must always be below 1 NTU. State regulations require that 95% of samples are below 0.3 NTU. In 2021, 100% of samples were less than 0.3 NTU. The highest filter turbidity reading (0.215 NTU) occurred on 9/3/21.
3. Bromate was not detected in any sample collected in 2021. The MCL value is determined by monitoring a rolling annual average each month. The annual average reported in this table contains detects from 2021.
4. If iron and manganese are present, the total concentration of both should not exceed 500 ug/L
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. Value presented 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. The regulation requires a Locational Running Annual Average (LRAA) be calculated by averaging the results of the 4 most recent quarters. The LRAA reported in this table is the highest LRAA obtained in 2021.

Table Definitions

NYSDOH: New York State Department of Health

USEPA: United States Environmental Protection Agency

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in the drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

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

TT: Treatment Technique

N/A: Not Applicable

ND: Not Detected

ng/L (nanograms per liter): Corresponds to one mass part in one trillion parts of another liquid (parts per trillion)

mg/L (milligrams per liter): Corresponds to one mass part in one million parts of another liquid (parts per million)

µg/L (micrograms per liter): Corresponds to one mass part in one billion parts of another liquid (parts per billion)

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

mrem/yr (millirems per year): A measure of radiation absorbed by the body.