

Annual Drinking Water Quality Report for 2002
D.C.W.W.A. Hyde Park System
48 South Drive
Hyde Park, NY 12538
845-229-2524
Public Water Supply ID# 1302796

INTRODUCTION

To comply with Federal and State regulations, DCWWA-Hyde Park System is annually issuing this report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. The Authority is proud to report that your system has never violated a maximum contaminant level or any other water quality standard. 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.

If you have any questions about this report or concerning your drinking water, please contact the Authority at 845-486-3601 and ask for Mr. Fred Zanetti. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Authority Board meetings. The meetings are held the third Wednesday of every month at 27 High Street, Poughkeepsie, NY in the second floor conference room beginning at 3:30 PM. Please contact our office at 845-486-3601 for agenda details and any last minute meeting time, location or date changes.

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.

Our water source is the Hudson River. The Hyde Park facility is made up of two components. The raw water station located at the end of Fuller Lane by Rogers Point and the treatment plant located at the end of South Drive. The raw water station pumps water from the Hudson River to the treatment facility approximately one half mile away. At the main treatment facility water received is treated by chemical coagulation, sedimentation and filtration for the removal of particulate matter and large microorganisms. Disinfection with chlorine is provided to eliminate pathogens. Potassium permanganate is added to the raw water for zebra muscle control, taste and odor control, and disinfection by-product control. Copper sulfate is added in the treatment process for taste and odor control. Tri-polyphosphate is added to the treated water for corrosion control in the distribution system. In the process of turning raw water into a finished product, the water quality is consistently monitored at each step along the way. Raw and finished water characteristics are checked daily for temperature, color, turbidity, total dissolved solids, and ph. Treatment is optimized based on these results and other process control sampling results made along the treatment path. Finished water is checked for chlorine residual and turbidity by continuous monitoring lab equipment. The finished water is then pumped out into the distribution system for customer use. The distribution system water is monitored for coliform bacteria, chlorine residual, turbidity, and other regulated parameters. Two elevated storage tanks located in the distribution system float on the system storing water for peak flow periods and fire protection.

During 2002, our system did not experience any restriction of our water source. The salt front intrusion did reach our water intake location in the fall. Sodium and chloride levels in the water were monitored on a daily basis and the results did not exceed action levels or maximum contaminant levels. There were no spills in the Hudson River

that were reported or that placed the Hudson River as our source in jeopardy of meeting our demands. The local health department is in contact with plant operators whenever there is a spill event of any size or type in the Hudson River so we are not caught by any surprise events that could jeopardize water treatment.

FACTS AND FIGURES

Our water system serves approximately 6525 persons thru 1147 service connections. In addition the Hyde Park system serves as the source of water for the Staatsburgh and Zone D (expanded Harbour Hills) water systems. The total amount of water produced in 2002 was 284,072,000 gallons. The daily average of water treated and pumped into the distribution system is 778,279 gallons per day. Our highest single day was 1,223,000 gallons in July of 2002. The amount of water delivered to customers was 264,906,000. This leaves an unbilled-for total of 19,166,000. This water is accounted for under the following categories: system flushing, fire department usage, out of order meters, and system leakage. In 2002 there were 16 water main and water service line leaks repaired. In 2002, water customers were charged \$2.95 per 1,000 gallons of water with a monthly service charge of \$11.50 per month for a residential service connection.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In general, the source of supply for drinking waters include streams, rivers, lakes, ponds, reservoirs, springs and wells. As water travels thru the air and lands on the ground running over land surfaces and then down through the sub surfaces of the earth, it dissolves naturally occurring materials in the soils and also may pick up other sources of contamination from human or animal activity. As the Federal and State regulations require, we routinely test your drinking water for numerous contaminants, which may have gotten into our water source. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, radioactive contaminants, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, herbicides, pesticides, and other 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. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, might 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 Dutchess County Health Department Health Department at 845-486-3404.

A Summary of the Regulated Contaminants Detected in Our Treated Water

Microbiological Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL,TT,AL)	Likely Source of Contamination
Turbidity	No	Every 4 hours daily	.18-.02(1)	NTU	N/A	TT (1)	Soil Runoff

Inorganic Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL,TT,AL)	Likely Source of Contamination
Barium	No	4/8/02	0.02	ppm	2	2	Discharge of drilling wastes; Discharge of metal refineries Erosion of natural deposits
Chloride	No	4/8/02	31	ppm		250	Erosion of natural deposits
Manganese	No	4/8/02	0.04	ppm		.3	Erosion of natural deposits
Sodium	No	4/8/02	16	ppm		20 (6)	Erosion of natural deposits; Hudson River Salt Front
Sulfate	No	4/8/02	47	ppm		250	Erosion of natural deposits
Copper	No	5/02	1.09 (2) 0.102-1.38	ppm	0	1.3-AL	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	No	5/02	2 (3) ND-2	ug/l	0	15-AL	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	No	2/8/02	0.67	ppm	10	10	Run off from fertilizer use; Leaching from septic tanks; Sewerage; erosion of natural deposits

Radioactive Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Alpha emitters (pCi/l)	No	12/00	0.60	pCi/l	0	15	Erosion of natural deposits

Volatile Organic Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL,TT,AL)	Likely Source of Contamination
1,1,2-Trichloroethane	No	4/8/02	0.8 (5)	ug/l	3	5	Discharge from industrial chemical factories
Methyl Tertiary Butyl Ether (MTBE)	No	7/15/02	0.8	ug/l	N/A	50	Releases from gasoline storage tanks; MTBE is an octane enhancer in unleaded gasoline; Atmospheric deposition

Disinfection Byproducts

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL,TT,AL)	Likely Source of Contamination
Haloacetic Acids (HAA5)	No	11/02	40.8(4) 20.0-80.2	ug/l	N/A	60	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs)	No	11/02	40.3 (4) 26.3-65.1	ug/l	N/A	80	By-product of drinking water chlorination
Chlorine Residual	N/A	N/A	.84-1.5	ppm	4.0	4.0	By-product of drinking water chlorination

Notes:

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 during the year was .18 NTU. State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. We monitor turbidity continually and record the readings every four hours.

2 – The level presented represents the 90th percentile of the 20 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 detected at your water system. In our case 20 samples were collected from your water system and the 90th percentile value was 1.09 mg/l. The highest value from the system was 1.38 mg/l and was the only sample, which exceeded the action level of 1.3 mg/l for copper.

3 -The level presented represents the 90th percentile of the 20 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 lead values detected at your water system. In our case 20 samples were collected from your water system and the 90th percentile value was 2 ug/l. The highest value from the system was 2 ug/l. The action level of 15 ug/l, for lead was not exceeded at any of the 20 sites tested.

4- This level represents the annual quarterly average calculated from data collected.

5- Samples collected 7/15/02, 10/10/02 and 1/30/03 show no detectable amount of 1,1,2-trichlorethane.

6-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.

Definitions:

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

MCLs are set as close to the MCLGs as feasible.

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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Non-Detects (ND): Laboratory analysis indicates that the constituent 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.

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).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

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

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

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2002, 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 (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.
- ♦ 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.
- ♦ 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.

SYSTEM IMPROVEMENTS

In 2002 the back up power project was completed on time and under budget. The raw water and treated water facilities now have a back up power source in the event that power from our local utility is lost. The interconnecting pipeline between the Hyde Park System and the Zone D (Harbour Hills & expanded service area) water improvement area was placed into service in late August of 2002. In 2003, it is planned to replace the remaining small (.8mgd) treated water pump with 1.1 mgd pump and to install variable speed drives on all raw and treated water pumps. This improvement will give the plant greater flexibility in operation and provide more efficient use of electrical power.

In closing, the Board members and staff of the Dutchess County Water and Wastewater Authority wish to 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 and preserve our water sources, which are the heart of our community and our way of life. Please call our office if you have any questions.