

Annual Drinking Water Quality Report for 2011
Village of Port Dickinson
Port Dickinson, New York
Public Water Supply ID# NY0301672

INTRODUCTION: To comply with State and Federal regulations, this annual report is issued by Port Dickinson Water department describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water. The Village of Port Dickinson does not produce our own water. Presently we purchase about 98% of our water from Hillcrest and the other 2% from the City of Binghamton. This means that if you live between Old State Road and Binghamton, you probably get most of your water from Binghamton. If you live between Wayne Ave. and Hillcrest, you probably get most of your water from Hillcrest. Those between Old State Road and Wayne Ave. are getting a mix of both water systems. Last year, both systems met all State Drinking Water Health Standards. This report provides an overview of both water systems.

If you have any questions about this report or your water, please contact Bob Aagre (771-8233) anytime.

WHERE DOES OUR WATER COME FROM: In general, the sources of drinking water (both tap and bottled) 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 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.

Hillcrest water comes from three wells, ranging in depth from 168 feet to 219 feet that draw water from a lower aquifer in the Chenango River Basin. The water is pumped from the wells into two covered storage tanks with a combined capacity of 1,250,000 gallons. The water is disinfected with sodium hypochlorite as it leaves the well field. Polyphosphate sequestant is added to keep dissolved iron and manganese found in our water in solution.

The City of Binghamton's primary source is the Susquehanna River. The water is withdrawn and treated at a modern, recently renovated water filtration facility. Binghamton also has a back-up groundwater supply, a well of relatively small capacity compared to their normal water demands. The well is typically exercised 8 hours per week and thus supplies less than one-half of one percent of their water. Water pumped from the well is chlorinated before entering the water distribution system.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER: Of course! All drinking water, including bottled 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. Regular testing is conducted on both systems and within Port Dickinson itself, to assure our water meets the accepted standards for the Federal Government and the State of New York. These tests include tests for total coliform, inorganic compounds, nitrates, nitrite, lead and copper, volatile organic compounds, and synthetic organic compounds.

Included at the end of this report are copies of both water systems' testing result for the year 2011. If these tables present any questions contact Bob Aagre (771-8233) at any time or stop by the Village Hall during business hours for a more detailed copy.

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. It should be noted that the action level for lead was exceeded in one of the samples collected. Based on this exceedance we are required to present the following information on lead in drinking water:

"Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791)."

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS? During 2011, 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 infection. 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:

1. Saving water saves energy and some of the cost associated with both of these necessities of life;
2. Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers.
3. 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:

1. 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.
2. Turn off the tap when brushing your teeth.
3. 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 6000 gallons per year.
4. 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.

SYSTEM MAINTANENCE: Within the Village of Port Dickinson, the public works crew is constantly monitoring our delivery system. If a problem arises, notification and repairs are quickly completed. If you witness or experience any irregularities in the water delivery system, please contact the Village Office or Bob Aagre (771-8233).

CLOSING: Thank you for allowing us to continue to serve you. Together, we can continue to provide safe, efficient service at the most reasonable cost possible.

DEFINITION OF TERMS USED IN TABLE:

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.

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRLDGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL): The highest level of a disinfectant residual that is allowed in drinking water.

ACTION LEVEL (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

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

NON-DETECTABLE (ND): Laboratory analysis indicates that a 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)

PICOCURIES PER LITER (pCi/L): A measure of the radioactivity in water.

RAA: running annual average.

Following are the Binghamton and Hillcrest Table of Detected Contaminants and the results of the Lead testing done in the Village of Port Dickinson in August of 2010.

TABLE OF DETECTED CONTAMINANTS FOR PORT DICKINSON

Contaminant	Violation Yes/no	Sample Location	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	MCL	SOURCE
Lead *	NO	Distribution	08/2010	6.5 (0.5 – 47.9)	mg/L	0	0.015	Corrosion of house- hold plumbing systems, erosion of natural deposits.
Copper*	NO	Distribution	08/2010	0.207 (0.0105-0.269)	Mg/L	0	1.3	Corrosion of house hold plumbing

* The level presented represents the 90th percentile of the sites tested. A percentile is a value on a scale of 100 that indicates the percent of distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead/copper values detected at your water systems.

Annual Drinking Water Quality Report for 2011
Hillcrest Water District Number 1
Hillcrest, New York
Public Water Supply ID# NY0301667

TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Well No./ Location	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, or AL)	Likely Source of Contamination
Inorganics								
Barium	No	Treatment Plant	06/22/11	0.197	Mg/l	N/A	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Arsenic	No	Treatment Plant	06/22/11	0.0013	Mg/l	NA	0.050	Erosion of natural deposits, Runoff from orchards, Runoff from glass & electronics production wastes
Sodium ¹	No	#1 #2 #3	06/22/11 06/22/11 06/22/11	20.5 17.2 46.7	Mg/l	See Health Effects	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Copper ²	No	Distribution	09/21/10	0.24 (0.061-0.382)	Mg/l	0	AL = 1.3	Corrosion of household plumbing systems, erosion of natural deposits.
Lead ²	No	Distribution	09/21/10	1.2 (ND – 1.6)	Ug/l	0	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits.
Sulfate	No	Treatment Plant	12/18/08	29.3	Mg/l	N/A	250	Naturally occurring
Nitrate	No	#3	06/22/11	1.87	Mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection Byproducts								
Total Trihalo-Methanes ³	No	Distribution	09/17/10	2.8	Ug/l	N/A	80	By-products of drinking water chlorination.
Total Haloacetic Acids	No	Distribution	09/17/10	2.3	Ug/l	N/A	60	By-products of drinking water chlorination.

- Notes:**
- 1 – 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.
 - 2 – The level presented represents the 90th percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the ninth highest value. The action level for lead or copper was not exceeded at any of the sites tested.
 - 3 - This level represents the total levels of the following contaminants: monochloroacetic acid, monobromoacetic acid, dichloroacetic acid, trichloroacetic acid, dibromoacetic acid.

- 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.
 - 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.
 - Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
 - Non-Detects (ND):** Laboratory analysis indicates that the constituent is not present.
 - Milligrams per liter (Mg/l):** Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
 - Micrograms per liter (Ug/l):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Annual Water Quality Report for 2011

Binghamton Water Department

25 Broome St., Binghamton, New York 13903
Public Water Supply ID# NY0301651

Table of Detected Contaminants							
CONTAMINANT	VIOLATION	DATE	LEVEL DETECTED (Range)	UNIT	MCLG	Regulatory Limit MCL	LIKELY SOURCE OF CONTAMINANT
Primary Inorganics							
Barium Plant	NO	6/22/11	0.0179	mg/L	2	2	Drilling Waste ,Discharge from metal Refineries, Erosion of natural deposits
Well	NO	12/20/11	0.0972	mg/L	2	2	
Arsenic Well	NO	12/20/11	0.0013	mg/L	0.1	0.1	Natural, orchard runoff, manufacturing
Fluoride							
Plant	NO	Daily	0.91 - 1.18	mg/L	1	2.2	Additive for good dental health
Well	NO	6/22/11	0.19	mg/L	1	2.2	Erosion of Natural Deposits
Chromium Well	NO	12/20/11	0.0022	mg/L	0.01	0.01	Discharge from Steel and pulp mills
Synthetic Organic Compounds							
Di(2 - Ethylhexyl)phthalate - Plant	NO	6/22/11	0.00293	mg/L	0.006	n/a	Break down of plastic items
Di(2 - Ethylhexyl)phthalate - Well	NO	6/22/11	0.00322	mg/L	0.006	n/a	Break down of plastic items
Volatle Organic Compounds							
Cis-1,2-Dichloroethene Well	NO	6/22/11	0.001	mg/L	0.005	n/a	Discharge from industrial chem factories
Trichloroethene Well	NO	12/20/11	0.0007	mg/L	0.05	n/a	Discharge from metal degreasing
Secondary Inorganic							
Nitrate Plant	NO	Quarterly	0.45 – 0.48	mg/L	10	10	Runoff from fertilizer, runoff from septic tanks ,sewage, natural erosion
Well	NO	Quarterly	3.46 – 3.61	mg/L	10	10	
Sodium Plant	NO	Quarterly	12.0 – 13.9	mg/L	N/A	None	Natural, road salt, water softeners
Well (*1)	NO	Quarterly	134.0 - 141	mg/L	N/A	None	
Disinfection By Products							
Total Trihalomethanes (*2)	NO	Quarterly	12.8 – 86.5	mg/L	N/A	80	Byproduct of disinfection. TTHM's form When chlorine meets organic matter.
Distribution system							
Halo acetic Acid (*3)	NO	Quarterly	5.6 – 44.7	mg/L	N/A	60	By product of disinfection. HAA5's form when chlorine meets organic matter.
Distribution system							
Chlorite Plant Average	NO	Yearly	0.05	mg/L	N/A	1	By product of in plant generation of chlorine dioxide
Daily High	NO	Sep. 27th	0.31	mg/L	N/A	1	
Cl. Dioxide Plant Average (*4)	NO	Yearly	0	mg/L	N/A	0.8	Chemical used in taste and odor control at the Water Filtration Plant.
Daily High	NO	Yearly	0	mg/L	N/A	0.8	
Sodium Hypochlorite							
Plant Average	NO	Yearly	1.35	mg/L	N/A	4	Chemical used in the disinfection of drinking water (as Free Chlorine)
Daily High	NO	Sep 9th	2.18	mg/L	N/A	4	
Radiological							
Gross Alpha Plant 2008	NO	Quarterly	0.10 - 2.28	pCi/L	0	15	Erosion of Natural Deposits
Well 2008	NO	Quarterly	2.19 - 3.36	pCi/L	0	15	
Radium 226 Plant 2008	NO	Quarterly	0.02 - 0.14	pCi/L	0	5	Erosion of Natural Deposits
Well 2008	NO	Quarterly	0.04 - 0.23	pCi/L	0	5	
Radium 228 Plant 2008	NO	Quarterly	0.38 - 0.92	pCi/L	0	5	Erosion of Natural Deposits
Well 2008	NO	Quarterly	0.00 - 1.79	pCi/L	0	5	

*** Notes:**

1 – 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.

2 - This level represents the total levels of the following contaminants: Chloroform, Bromodichloromethane, Dibromochloromethane, Bromoform.

3- This level represents the total levels of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, & Dibromoacetic Acid.

4- This result is due to equipment failure and a poor supply of available parts for repairs. This equipment is back online as of March 1st 2012.