

Annual Drinking Water Quality Report for 2014
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 Charles Harding (771-8233) during business hours.

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 210 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 sequestrant 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, lead and copper and disinfection byproducts.

Included at the end of this report are copies of both water systems' testing result for the year 2014. If these tables present any questions contact Charles Harding (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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS? During 2014, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS? Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lesson 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 Charles Harding (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 TABLES:

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. MRDLGs 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.

Following are the Binghamton and Hillcrest Table of Detected Contaminants and the results of the testing done in the Village of Port Dickinson distribution system.

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 ¹	No	Distribution	08/2013	1.9 (ND – 2.6)	ug/L	0	15	Corrosion of house- hold plumbing systems, erosion of natural deposits.
Copper ¹	No	Distribution	08/2013	0.212 (0.0546-0.254)	mg/L	0	1.3	Corrosion of house hold plumbing
Total Trihalomethane ²	No	Distribution	8/20/2013	4.4	ug/l	N/A	80	Byproducts of drinking water chlorination

1 - 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.
 2 - This level represents the total levels of the following contaminants: chloroform, bromodichloromethane, dibromochloromethane, and bromoform

Annual Drinking Water Quality Report for 2014
Hillcrest Water District # 1
Hillcrest, New York
Public Water Supply ID# NY0301667

TABLE OF DETECTED CONTAMINANTS – HILLCREST 2014

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	10/15/14	0.20	mg/l	N/A	2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Arsenic	No	Treatment Plant	10/15/14	0.001	mg/l	N/A	0.010	Erosion of natural deposits, Runoff from orchards, Runoff from glass & electronics production wastes
Sodium ¹	No	#1 #2 #3	10/15/14 10/15/14 10/15/14	26 21 59	mg/l	See Health Effects	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Copper ²	No	Distribution	09/24/13	0.275 (0.11-0.58)	mg/l	0	AL = 1.3	Corrosion of household plumbing systems, erosion of natural deposits.
Lead ²	No	Distribution	09/24/13	1.9 (ND -4.1)	ug/l	0	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits.
Nitrate	No	#1 #2 #3	10/15/14 10/15/14 10/15/14	0.103 <0.05 1.66	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	08/30/13	5.5	ug/l	N/A	80	By-products of drinking water chlorination.
Total Haloacetic Acids ⁴	No	Distribution	08/30/13	1.0	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: chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

4 - This level represents the total levels of the following contaminants: monochloroacetic acid, monobromoacetic acid, dichloroacetic acid, trichloroacetic acid, dibromoacetic acid.

Hillcrest Water District #1
 NY0301667
 AWQR Source Water Assessment Summary

The NYS DOH has completed a source water assessment for this system, 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. While nitrate and other inorganic contaminants were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk.

As mentioned before, our water is derived from three drilled wells. The source water assessment has rated these wells as having a medium-high susceptibility to halogenated solvents, nitrate and microbial, specifically enteric bacteria and enteric viruses. The wells have a medium susceptibility to other contaminants as noted in the table below. These ratings are due primarily to the proximity to the wells of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and residential areas using individual septic systems. The ratings are also driven by the presence of hazardous waste sites and Toxic Release Inventory sites in the vicinity of the wells. Based on the source water review, the wells draw from a confined aquifer that can provide a measure of protection from potential contamination. While the source water assessment rates our wells as being moderately susceptible to microbial, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State’s drinking water standards for microbial contamination.

SUSCEPTIBILITY TABLE			
CONTAMINANT	WELL #1	WELL #2	WELL #3
Enteric Bacteria	Medium-High	Medium-High	Medium-High
Enteric Viruses	Medium-High	Medium-High	Medium-High
Halogenated Solvents	Medium-High	Medium-High	Medium-High
Herbicides/Pesticides	Medium	Medium	Medium
Metals	Medium	Medium	Medium
Nitrate	Medium-High	Medium-High	Medium-High
Other Industrial Organics	Medium	Medium	Medium
Petroleum Products	Medium	Medium	Medium
Protozoa	Medium	Medium	Medium

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 assessment, including a map of the assessment area, can be obtained by contacting the water supplier.

Annual Water Quality Report for 2014

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
Inorganics								
Barium	Plant Well	NO	6/18/14	0.0147 0.0690	mg/L	2.0	2.0	Drilling Waste ,Discharge from metal Refineries, Erosion of natural deposits
Nickel	Well	NO	6/18/14	0.0007	mg/L	N/A	N/A	Erosion of Natural Deposits and manufacturing wastes
Chloride	Plant Well	NO	6/18/14	19.7 212	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination
Sulfate	Plant Well	NO	6/18/14	5.72 20.7	mg/l	N/A	250	Naturally occurring
Fluoride	Plant Well	NO	Daily 6/18/14	(0.86 - 1.19) 0.210	mg/L	1.0	2.2	Additive for good dental health and Erosion of Natural Deposits
Nitrate	Plant Well	NO	12/17/14	0.52 3.26	mg/L	10	10	Runoff from fertilizer, runoff from septic tanks ,sewage, natural erosion
Sodium	Plant Well (*1)	NO	6/18/14	12.6 119	mg/L	N/A	None	Natural in soil, road salt, water softeners
Disinfection By Products								
Total Trihalomethane (*2) Distribution system		NO	Quarterly	62.5 (6.55-117)	ug/L	N/A	80	Byproduct of disinfection. TTHM's form when chlorine meets organic matter.
Halooetic Acid (*3) Distribution system		NO	Quarterly	25.0 (1.80-49.6)	ug/L	N/A	60	By product of disinfection. HAA5's form when chlorine meets organic matter.
Chlorite	Plant Average Daily High	NO	Yearly	0.007	mg/L	N/A	1.0	By product of in plant generation of chlorine dioxide
Sodium Hypochlorite	Plant Average Daily High	NO	Yearly Sep 5th	1.44 1.82	mg/L	N/A	4.0	Chemical used in the disinfection of drinking water (as Free Chlorine)
Radiological								
Gross Alpha	Plant	NO	12/11/12	4.2	pCi/L	0	15	Erosion of Natural Deposits
Gross Beta	Plant	NO	12/11/12	1.92	mrem/yr	0	4	Decay of natural deposits and man-made emissions
Radium 226	Plant	NO	12/11/12	0.01	pCi/L	0	5	Erosion of Natural Deposits
Radium 228	Plant	NO	12/11/12	1.40	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 highest locational running annual average and the range of the following contaminants: Chloroform, Bromodichloromethane, Dibromochloromethane & Bromoform.

3- This level represents the highest locational running annual average and the range of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid & Dibromoacetic Acid.

INFORMATION ON THE ADDITION OF FLUORIDE

Our system is one of many in New York State that provides drinking water with a controlled, low level of Fluoride for consumer dental health protection. Fluoride is added to your water by the Water Filtration Plant and is monitored no less than every four hours by water plant operators and laboratory personnel. According to the Center for Disease Control, Fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 – 1.2 mg/L. During 2014 monitoring showed Fluoride levels in your water were in the optimal range 100 % of the time. At no time in 2014 did the Fluoride level exceed the MCL of 2.2 mg/L.