CITY OF PORT JERVIS 2017 ANNUAL WATER QUALITY REPORT

This annual report to the customers of the Port Jervis Water District PWS #3503554 will present a summary of the quality of the water provided to you over the past year. Included will be a description of the source of your water supply and the general quality of this source, plus the population it serves. Results of all analytical testing along with detected contaminant levels are included. You will also find descriptions of the treatment process, and annual charge to the customer. We hope the information supplied in this report will help consumers understand the process by which safe drinking water is delivered to their homes and businesses. We will be happy to answer any questions about Port Jervis water systems and our water quality. Call 845-858-4009, and ask for Scott Decker. We encourage public interest and participation in the decisions affecting drinking water. Regular monthly meetings of the Port Jervis Common Council are normally the second and fourth Monday of each month at 7:30PM. The meetings are held at City Hall, 14-22 Hammond Street.

WHAT IS THE SOURCE OF PORT JERVIS WATER

The water supply is obtained from a water shed of approximately 3000 acres with the lower 2000 acres owned by the City. Within this water shed are three interconnected reservoirs. Reservoir #1 has a storage capacity of 71 million gallons, and a surface area of 22 acres, and is located at the head of the Water Filtration Plant on Reservoir Road. Reservoir #2 is located on Huguenot Brook in the Town of Deerpark, with a storage capacity of 209 million gallons and surface area of 35 acres. The largest of the reservoirs is #3, located on Sparrowbush Brook, with a storage capacity of 292 million gallons and a 75 acre surface.
Also within the watershed is a small pond, a natural tributary to Reservoir #2. A diverter in the outlet of this pond permits outflow to Reservoir #3 when desired. The drainage area above the diverter, which is tributary to both Reservoirs #2 and #3 is 1.14 square miles. The water which is drawn from Reservoir #1 is treated with Ozone Direct Filtration at the Port Jervis Reservoir Avenue Filtration Plant. The water entering the plant is treated with Aluminum chlorhydroxide and on occasion Polymer for coagulation of particulates and organic matter in the water. The water is then treated with Ozone for oxidation and disinfection, removal of inorganics, destruction of microorganisms and protozoa, along with removal of taste, odor and color. Filtration is the next step in the process which removes the remaining particulate and organic matter. Upon leaving the filters, Sodium hydroxide is added for Ph adjustment, sodium hypochlorite for disinfection within the distribution system and ortho phosphate to form cathodic film inside pipe for corrosion control.

The Port Jervis Water District serves a population of 9,060 within the City of Port Jervis through 3300 service connections. The total amount of water produced in 2017 was 394 million gallons. The daily average of water treated and pumped into the distribution system is 1,079,000 gallons per day. Our highest single day was 1,408,000 gallons. The annual residential charge for water use is 520.00 divided into four payments of 130.00 every 3 months.

IMPROVEMENTS

(1). Removed and replaced 1 hydrants and 3 Hydrant repairs.
(2). Installed 4 new service connections.
(3). 15 service line repairs.
(4). Replaced 1 main valve and repaired 6 main leaks
(5). Dam maintenance at all 3 Reservoirs

Annual Hydrant Flushing of the 38 miles of water mains was completed in April, 2017. Hydrant flushing helps to remove any sediment from the water mains and assures consistent, good quality water. Due to the drought conditions of the summer season the city decided to forego the fall flushing in an effort to conserve as much water as possible.

WATER CONSERVATION

As always, customers are advised to follow water conservation measures in a conscientious manner by eliminating any unnecessary water use.

- **Use low flow shower heads and faucets.**
- **Repair all leaks in your plumbing.**
- **Water lawns sparingly in the early morning or late evening.**
- **Wash cars with a bucket and hose with a nozzle.**
- **Check for toilet leaks by adding food coloring to the tank.**
- **Operate automatic dishwasher and clothes washer only when they are fully loaded.**

DEFINITIONS

In the "Detected Contaminants" table, you will find many terms and abbreviations you might not be familiar with , to help you better understand these terms we provided the following definitions:

Maximum Contaminant Level Goal MCLG):
the level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Contaminant Level (MCL):
the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible, suiting the best available treatment technology.

Action Level (AL): **the concentration of a contaminant which, when 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.**

NTU: Nephelometric turbidity unit.
ppt: corresponds to one part of liquid to one trillion parts of liquid (parts per trillion).
ppm: parts per million, or milligrams per liter (mg/l)
ppb: parts per billion, or micrograms per liter (ug/l)
ND: not detected
N/A: not applicable

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.

CONTAMINANTS

Water, including bottled water, may reasonably be 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 by calling your local Orange County Health Dept. (845-291-2331). 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 activity.

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil gas production, mining or farming.

Pesticides/herbicides which may come from a variety of sources such as agriculture and residential uses.

Radioactive contaminants which are naturally occurring.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the EPA and NYS DOH prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. We treat our water according to those regulations. Port Jervis water district conducted more than 400 tests for over 100 drinking water contaminants.

Your water is tested for inorganic contaminants, synthetic, organic contaminants, nitrates, lead and copper. VOC's and total trihalomethanes. Additionally, your water is tested for coliform bacteria 10 times a month. The contaminants detected in your drinking water are included in the Table of Detected Contaminants. A supplement of results of all tests conducted are available at Port Jervis City Hall, Port Jervis Water Filtration Plant and Department of Public Works Office.

Some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

CRYPTOSPORIDIOSIS AND GIARDIASIS INFORMATION:
Though there has been no evidence of illness related to the City of Port Jervis's water supply, New York State law requires water suppliers to notify their customers about Cryptosporidiosis and Giardiasis are intestinal illnesses caused by microscopic parasites. Cryptosporidiosis can be very serious for people with weak immune systems, such as chemotherapy, dialysis or transplant patients, and people with Crohn's disease or HIV infection. People with weakened immune systems should discuss with their health care providers the need to take extra precautions such as boiling water, using a certified bottled water or a specially approved home filter. Individuals who think they may have Cryptosporidiosis or giardiasis should contact their health care provider immediately.
Since the water supply for the City of Port Jervis is filtered and disinfected with ozone and chlorine, which are known to destroy cryptosporidium and giardiasis in water, it is at low risk for the presence of these contaminants.

AWQR SUMMARY

The NYS DOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.
This assessment found no noteworthy risks to source water quality. It should be noted that reservoirs in general are highly sensitive to phosphorus and microbial contaminants.
A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted in this report.

SWAP SUMMARY

The NYSDOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program(SWAP). This assessment found no noteworthy risks to our source water quality. It should be noted that reservoirs in general are highly sensitive to phosphorus and microbial contaminants. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted in this report.
2016

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity[1]	No	7/1/17 & 7/20/17	0.28	NTU	N/A	TT= ≤ 1.0 NTU	Soil runoff
Turbidity[1]	No	2017	100%	NTU	N/A	TT=95% of samples ≤ 0.3 NTU	Soil runoff
Sulfate	No	4/18/17	5.16	mg/l	N/A	MCL = 250	Naturally occurring
Nickel	No	4/18/17	0.5	ug/l	100	MCL = 100	Erosions of natural deposits
Copper (See Note)	No	9/23/16	90^{th} = 0.15 Range = 0.012 to 0.097	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems
Lead (See Note)	No	9/23/16	90^{th} = 8.2 Range = ND to 26	ug/l	0	AL = 15	Corrosion of household plumbing systems
Sodium	No	11/18/11	4.85	mg/l	N/A	See Note 2	Road Salt
Chloride	No	12/29/11	3.3	mg/l	N/A	MCL = 250	Road Salt
Total Trihalomethanes (TTHMs) Location 1	No	2017	Ave = 14.4 Range = 3.4 to 29.0	ug/l	N/A	MCL = 80	Byproduct of drinking water disinfection needed to kill harmful organisms.
Five Haloacetic Acids (HAA5) Location 1	No	2017	Ave = 9.2 Range = 3.6 to 17.4	ug/l	N/A	MCL = 60	
Total Trihalomethanes (TTHMs) Location 2	No	2017	Ave = 11.7 Range = 6.3 to 19.9	ug/l	N/A	MCL = 80	Byproduct of drinking water disinfection needed to kill harmful organisms.
Five Haloacetic Acids (HAA5) Location 2	No	2017	Ave = 9.7 Range = 3.0 to 18.3	ug/l	N/A	MCL = 60	
Barium	No	4/18/17	0.0055	mg/l	2	MCL=2	Erosions of natural deposits

Notes:

LEAD: "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 mins. before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791)".

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 (0.28 NTU) for the year occurred on 7/1/17 & 7/20/17. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. During 2017, our water system never exceeded the 0.3 NTU turbidity requirement.

(2) LEAD

The levels reported for lead and copper represent the 90th percentile of the samples collected. 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. The action level for lead and copper were not exceeded at any of the sites tested.