

2021

Annual Drinking Water

Quality Report

Borough of Elmer

Water Department

Results From the Year

2020

2021 Annual Drinking Water Quality Report

Borough of Elmer Water Department

Results From the Year 2020

We are very pleased to provide you with the 2021 Annual Water Quality Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been to provide to you a safe and dependable supply of drinking water.

Our water source is from two groundwater wells located within the Borough of Elmer. These wells draw water from the Mount Laurel - Wenonah Aquifer located approximately 500 feet deep. The Borough owns the land around these wells and restricts any activity that could pose contamination of the underground water source. Calcium Hypochlorite Chlorination is used at both well sites in order to deliver water for disinfection to our residents and businesses.

The Borough of Elmer pumped approximately 43 million gallons in 2020 representing total water consumption from both Well #6 and Well #8. Each well alternates on a daily basis supplying water throughout our water system. The water system consists of eight linear miles of water distribution mains, 90 fire hydrants and 540 service connections serving approximately 1,400 people. All fire hydrants throughout the water system are flushed and inspected twice per year. We continue to upgrade the treatment system and maintain all of the fire hydrants in the Elmer water distribution system.

An elevated storage tank is located on State Street with a capacity of 200,000 gallons. The purpose of the tank is to help equalize and improve water pressure and increase firefighting capabilities for all the fire hydrants located throughout the Elmer Water System. The elevated water storage tank allows a 24-hour supply of water in the event of a water emergency.

The Borough of Elmer performed more than 100 analyses for constituents in your drinking water as required by Federal and State laws. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, is more than one year old.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above the allowable levels. As a result of the assessments, NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings. The eight contaminant categories are defined as follows:

Pathogens: Disease causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine and insecticides such as chlordane.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE) and vinyl chloride.

Inorganics: Mineral based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Disinfection Byproduct Precursors (DBPs): A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example: leaves) present in surface water.

Consumer Confidence Report Information

The following information is required to be placed in all Consumer Confidence Reports by the United States Environmental Protection Agency (USEPA) and the NJDEP Bureau of Safe Drinking Water. The information will include health effects of contaminants detected in the water supply.

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 materials and can pick up substances resulting from presence of animals or human activity. Contaminants that may be present in source water 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 and gas production, mining, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also, come from gas stations, urban storm water runoff and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be a result of oil and gas production and mining activities.

In order to ensure that the water is safe to drink, EPA prescribes regulations which limit the amounts of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide for protection for public health.

Drinking 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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

The Borough of Elmer routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st 2020 and includes results from additional prior years for some samples.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

TABLE DEFINITIONS:

In the following tables, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

Non-Detects (ND) - laboratory analysis indicated that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/L) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g/L}$) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (PPT) or Nanograms per liter (ng/l - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (pg/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

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

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT) - a treatment technique is a required process intended to reduce the level of contaminant in drinking water.

Total Organic Carbon - we are required to remove a certain percentage of (TOC) from our drinking water on a monthly basis. Total Organic Carbon has no adverse health effects. However, TOC provides a medium for the formation of disinfection byproducts.

Maximum Contaminant Level (MCL) - the “Maximum Allowed” (MCL) is the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - the “Goal” MCLG is the level of 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 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.

Secondary Contaminant - Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, no mandates.

Recommended Upper Limit (RUL) - recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RULs are recommendations, not mandates.

TEST RESULTS (2018, 2019, 2020)

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	N	0		0	1 positive monthly sample.	Naturally present in the environment
Inorganic Contaminants						
Copper Results at 90 th Percentile Tested in 2018	N	0.198 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	0.655	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Results at 90 th Percentile Tested in 2018	N	3.30 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	0.064	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Radioactive Contaminants Tested in 2018	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Gross Alpha	N	<3.00	pCi/l	0	15	Erosion of natural deposits
Combined Radium-228 & 226	N	1.50	pCi/l	0	5	Erosion of natural deposits
Radium- 228	N	<1.00	pCi/l	0	15	Erosion of natural deposits

Disinfection Byproducts Stage-2 – Sampled July 2020							
TTHM Total Trihalomethanes Tested in 2020	N	Range = 0.52 – 5.40 Highest detected = 5.40		ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Tested in 2020	N	Range = 1.67 – 5.48 Highest Detection = 5.48		ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected (Average & Highest Detected)		MRDL		MRDLG	
Chlorine* Tested in 2020		Range = 0.3 – 0.7 ppm Average = 0.6 ppm		4.0 ppm		4.0 ppm	

* Chlorine: Water additive to control microbes

The state allows us to monitor 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. We constantly monitor for various contaminants in the water supply to meet all regulatory requirements.

The NJDEP required the Elmer Water Department to monitor for 10 additional Inorganic samples plus 26 Volatile Organic Compounds. All compounds were tested and none were detected.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Unregulated Contaminant Monitoring: The Borough of Elmer Water Department monitored for the following unregulated contaminants in 2019 & 2020. Unregulated contaminants are those for which the US Environmental Protection Agency (EPA) or the New Jersey Department of Environmental Protection (NJDEP) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA and NJDEP in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted.

Perfluorinated compounds are widely found in the environment. EPA has identified a guidance level of 0.070 ppb for PFOA/PFOS (combined), and NJDEP has adopted new drinking water Maximum Contaminant Level (MCL) standards for PFOA and PFOS of 14 ng/L (0.014 ppb) and 13 ng/L (0.013 ppb), respectively, as of January 2021.

Contaminant	Level Detected	Units of Measurement	Likely source
(PFOS) Perfluorooctane Sulfonate	Range = ND	ppb	Used in the manufacture of fluoropolymers.
(PFOA) Perfluorooctanoic Acid	Range = ND	ppb	Used in the manufacture of fluoropolymers.
(PFNA) Perfluorononanoic Acid	Range = ND	ppb	Used in the manufacture of fluoropolymers.

Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate

(PFOS): PFOA and PFOS are per- and polyfluoroalkyl substances (PFAS), previously referred to as perfluorinated compounds, or PFCs, that are man-made and used in industrial and commercial applications. PFOA was used as a processing aid in the manufacture of fluoropolymers used in non-stick cookware and other products, as well as other commercial and industrial uses based on its resistance to harsh chemicals and high temperatures. PFOS is used in metal plating and finishing as well as in various commercial products. PFOS was previously used as a major ingredient in aqueous film forming foams for firefighting and training, and PFOA and PFOS are found in consumer products such as stain resistant coatings for upholstery and carpets, water resistant outdoor clothing, and grease proof food packaging. Although the use of PFOA and PFOS has decreased substantially, contamination is expected to continue indefinitely because these substances are extremely persistent in the environment and are soluble and mobile in water.

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. Alpha emitters: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228: Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Total Trihalomethanes (TTHMs): Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Lead: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Borough of Elmer Water Department 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Sodium: Even though sodium is not regulated by the Federal Safe Drinking Water Act, the NJDEP has set a limit of 50 ppm as the MCL. Sodium was tested in 2018 and 2021 and was 60 ppm and 72.5 ppm respectively. The state requires us to contact the local health department, local doctors and hospitals when we exceed the 50-ppm level.

Sodium is naturally occurring in underground aquifers. Sodium levels above the secondary recommended levels may be of concern to individuals on low sodium diets. They may want to consult with their doctors to see if these levels could cause health problems. For healthy individuals, the sodium intake for water is not important because a much greater intake of sodium takes place from salt in the diet. The sodium found in Elmer's water is from natural erosion. For more information on sodium contact Salem County Health Department at (856) 935-7510.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration Regulations establish limits for contamination in bottled water which must provide the same protection for public health.

Drinking 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline at 1-800-426-4791.

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, and synthetic organic chemicals. Our system received monitoring waivers for both of these types of contaminants.

Facts About Water Usage

Have you ever wondered how much water you use in the appliances around your home? The following list reflects the average daily water use of certain appliances and fixtures within the home.

Washing Machine	25-50 gallons
Bathtub	25-35 gallons
Dishwasher	15-30 gallons
Toilet	4-6 gallons
Shower	3-5 gallons (per minute)
Sink Faucet	2-3 gallons (per minute)
Outside Faucet	3-5 gallons (per minute)

Tips to Conserve Water:

- Take shorter showers
- Only do full loads of wash
- Run dishwashers fully loaded

Security

In light of the events of the past year and in response to the States Domestic Security Preparedness Act, the Borough of Elmer has reviewed the security of our facilities and our operations. We will continue to review these elements of our water system and remain observant of all our facilities and vital assets.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

The Borough of Elmer Water Department works around the clock to provide top quality water to every customer. We ask that all of our customers help us protect our water resources which are the heart of our community and our way of life.

This report was provided by Consulting Engineer Services (CES), Inc., for the Elmer Borough Water Department. Should you have any questions on the content of the report please feel free to contact our Water Department Manager: Norman Rodgers, CES: 856-228-2200, nrodders@ces-1.com

For more information about the Water Department visit our web site: [www. ElmerBoroughNJ.com](http://www.ElmerBoroughNJ.com) and click on the Water Department tab.

We encourage public participation at our council meetings held on the second Wednesday of each month at 7:30 pm at the Borough Hall, 120 S. Main Street, Elmer NJ.



BOROUGH OF ELMER

120 S. Main Street

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