

## Annual Drinking Water Quality Report Princeton Child Development Institute PWSID# NJ1107315

## For the Year 2021, Results from the Year 2020

Princeton Child Development Institute is pleased to present to you this year's Annual Drinking Water Quality Report. Our drinking water is pumped from two active wells on site in Mercer County.

EPA requires monitoring for over 80 drinking water contaminants. Those contaminants listed in the table are only contaminants detected in your water.

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 OF DETECTED CONTAMINANTS													
Contaminant	Violati on Y/N	Level Detected	Units of Measure ment	MC LG	MCL	Likely Source of Contamination							
<b>Inorganic Contaminants</b>													
Copper	N	0.092 No samples exceeded AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits							
Barium Test results Yr.: 2019	N	0.221	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits							
Lead	N	2.41 No samples exceeded AL	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits							
Nickel Test results Yr.: 2019	N	0.00169	ppm	NA	NA	Erosion of natural deposits; discharge from mining refineries and metal product factories							
Fluoride Test results Yr.: 2019	N	0.251	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories							
Antimony Test results Yr.: 2019	N	0.331	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder							
Chromium Test results Yr.: 2019	N	0.963	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits							
Radioactive Contaminan	ts												
Alpha emitters Test results Yr.: 2019	N	ND – 2.55 Avg. = 0.6375	pCi/1	0	15	Erosion of natural deposits							
Combined radium Test results Yr.: 2019	N	ND - 1.5 Avg. = 0.375	pCi/1	0	5	Erosion of natural deposits							
Uranium Test results Yr.: 2019	N	1.45 – 2.01 Avg. = 1.29	ppb	0	30	Erosion of natural deposits							

TABLE OF SECONDARY CONTAMINANTS												
Secondary Contaminant	Level Detected	Units of Measurement	RUL									
Sodium	75.2	ppm	50									
Test results Yr.: 2019												

**Sodium Health Effects:** For healthy individuals the sodium intake from water is not important, because a much greater of sodium takes place from salt in the diet. However, sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

Princeton Child Development Institute routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the test results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2020. 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 test results, though representative, are more than one year old.

We have learned through our monitoring and testing that some contaminants have been detected. We are proud that your drinking water meets or exceeds all Federal and State safety requirements.

If you have any questions about this report or concerning your water quality, please contact our well water compliance company, McGowan LLC-Well Water Compliance Management at (973)962-4432. We want our valued customers to be informed about their water quality.

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 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 projection, 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 the result of oil and gas production and mining activities.

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 contaminants 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's Safe Drinking Water Hotline at 1-800-426-4791.

## **DEFINITIONS**

In the "TABLE OF DETECTED CONTAMINANTS" you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**Non-Detects** (ND) - laboratory analysis indicates 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 - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

<u>Parts per trillion</u> (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000

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

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

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water.

MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

<u>Maximum Contaminant Level Goal</u> -The "Goal"(MCLG) is 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.

<u>Secondary Contaminant</u> - Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not 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.

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

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. Princeton Child Development Institute 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 about lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

To ensure the continued quality of our water, Princeton Child Development Institute is treating its potable water for particulate removal, arsenic reduction and bacterial disinfection. There are two wells which connect together at a common header in the meter room prior to the treatment system. The water is transferred from the well via submersible pump to four Well-X-Trol 350, 100-gallon hydro-pneumatic pressure tanks. There is a raw water test port upstream of the pressure tanks. Following storage, the water is metered and then passes through a single Big Blue 10" sediment filter which removes particulate matter. Next, the water passes through two arsenic removal tanks which are plumbed in series with test ports located before, between and after the arsenic canisters. Finally, the water passes through two 20 gallon per minute ultra violet systems which are plumbed in parallel. These ultra violet units include an analog monitor and a solenoid shut-off valve. In the event of an electrical failure or a failure in UV light intensity, the system will automatically shut off the water to avoid bacterial contamination of the distribution lines. Following disinfection, the water enters the distribution system by way of a one-inch copper main.

We at Princeton Child Development Institute work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at <a href="http://www.nj.gov/dep/watersupply/swap/index.html">http://www.nj.gov/dep/watersupply/swap/index.html</a> or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550 or <a href="https://www.nj.gov/dep.nj.gov">watersupply/@dep.nj.gov</a>. You may also contact your public water system to obtain information regarding your water system's Source Water Assessment.

## **Susceptibility Ratings for Princeton Child Development Institute Sources**

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

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 <u>potential</u> 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 allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

	Pathogens		Nutrients		Pesticides			Volatile Organic Compounds			Inorganics			Radio- nuclides			Radon			Disinfection Byproduct Precursors				
Sources	Н	M	L	Н	M	L	Н	M	L	Н	M	L	Н	M	L	Н	M	L	Н	M	L	Н	M	L
Wells - 2	1		1		2			2				2		2		2			2				2	

**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.

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

**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.

**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:** 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.