

2023
Annual Drinking
Water Quality Report

RED BANK DEPARTMENT OF UTILITIES
PWSID 1340001
ANNUAL DRINKING WATER QUALITY
REPORT
RESULTS FROM 2022

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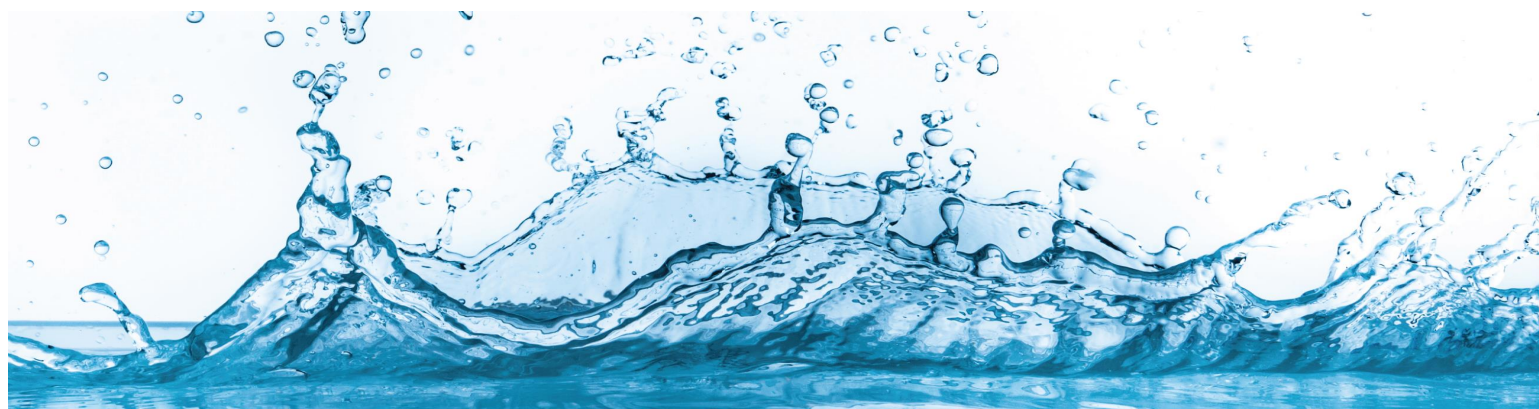
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Annual Drinking Water Quality Report

Red Bank Water Department

For the Year 2023, Results from the Year 2022

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. We are committed to ensuring the quality of your water. Our ground water supply is obtained from four wells. Well #6 and #8 are located at the Red Bank Public Works Department on Chestnut Street. These wells are 700 feet deep and draw water from the Raritan Aquifer Formation. Wells #5 and #7 are located in the Tower Hill area of Red Bank. These wells are 780 feet deep and also draw groundwater from the Raritan Aquifer Formation. During the off-peak months (December-April) Red Bank is required to purchase treated water from the New Jersey American Water Company which obtains supply from the Swimming River Reservoir.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued a Source Water Assessment Report and Summary for this public water system, which is available at www.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact the Red Bank Water Department or New Jersey American Water Company to obtain information regarding Source Water Assessments.

If you are a landlord, you must distribute this Drinking Water Quality Report to every tenant as soon as practicable, but no later than three business days after receipt. Delivery must be done by hand, mail, or email, and by posting the information in a prominent location at the entrance of each rental premises, pursuant to section #3 of NJ P.L. 2021, c.82 (C.58:12A-12.4 et seq.).

The Red Bank Water Department and New Jersey American Water Company (NJAWC) routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the results of that monitoring for the period of January 1st to December 31st, 2022. 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.

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).

Red Bank Water Department 2022 Test Results						
PWSID #NJ1340001						
Contaminant	Violation Y/N	Range Detected	Units of Measurement	MCLG	MCL	Likely Source
Total Coliform	N	0	cfu	0	<5% of Monthly Samples	Naturally Present in the Environment
Fluoride	N	ND to 0.2	ppm	2	2	Erosion of Natural Deposits
Nitrate	N	ND to 0.1	ppm	10	10	Runoff from Fertilizer Use
Chromium	N	ND to 0.01	ppb	100	100	Industrial Discharge
Inorganic Contaminants:						
Copper Test results Yr. 2022 Result at 90 th Percentile	N	ND – 0.04 No samples exceeded the action level.	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Test results Yr. 2022 Result at 90 th Percentile	N	ND – 0.001 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2022	N	Range = 1-68 Highest LRAA = 31	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2022	N	Range = 1-23 Highest LRAA = 18	ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected	MRDL		MRDLG	
Chlorine Test results Yr. 2022		Range = 0.2 – 2.5 Average = 1.7 ppm	4.0 ppm		4.0 ppm	
Secondary Contaminates		Units	RUL		Amount Detected	
Sodium		ppm	50		0.05 - 8	
Iron		ppm	0.3		0.01	
Hardness		ppm	250		75 - 98	
Aluminum		ppm	0.05		0.04	

Manganese	ppm	0.4	0.03
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Polyfluoroalkyl Compounds

Parameter	Unit	Highest Level Detected	Range Detected	Typical Source
Perfluorooctanoic Acid (PFOA)	ng/l	<2	0 to <2	Used for manufacturing of Teflon, Firefighting Foams, Polishes, Films
PFOA has a proposed MCL of 14 ppt				
Perfluoropentanoic Acid	ng/l	<2	0 to <2	Manmade chemical; used in products for stain, grease, heat and water resistance
PFOS has a proposed MCL of 13 ppt				
Perfluorononanoic (PFNA)	ng/l	<2	0 to <2	Manmade chemical; used in products for stain, grease, heat and water resistance

Sources of Lead in Drinking Water

The Red Bank Water Department and New Jersey American Water Company (NJAWC) are responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Although most lead exposure occurs from inhaling dust or from contaminated soil, or when children eat paint chips, the U.S. Environmental Protection Agency (USEPA) estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Lead is rarely found in the source of your drinking water but enters tap water through corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing materials. These materials include lead-based solder used to join copper pipes, brass, and chrome-brass faucets, and in some cases, service lines made of or lined with lead. New brass faucets, fittings, and valves, including those advertised as “lead-free”, may still contain a small percentage of lead, and contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 0.25 percent lead to be labeled as “lead free”. However, prior to January 4, 2014, “lead free” allowed up to 8 percent lead content of the wetted surfaces of plumbing products including those labeled National Sanitation Foundation (NSF) certified. Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures. Consumers should be aware of this when choosing fixtures and take appropriate precautions. When water stands in lead service lines, lead pipes, or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

Steps You Can Take to Reduce Exposure to Lead in Drinking Water

For a full list of steps visit: <https://www.state.nj.us/dep/watersupply/dwc-lead-consumer.html>

Run the cold water to flush out lead. Let the water run from the tap before using it for drinking or cooking any time the water in the faucet has gone unused for more than six hours. The longer the water resides in plumbing the more lead it may contain. Flushing the tap means running the cold-water faucet. Let the water run from the cold-water tap based on the length of the lead service line and the plumbing configuration in your home. In other words, the larger the home or building and the greater the distance to the water main (in the street), the more water it will take to flush properly. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

Use cold, flushed water for cooking and preparing baby formula. Because lead from lead-containing plumbing materials and pipes can dissolve into hot water more easily than cold water, never drink, cook, or prepare beverages including baby formula using hot water from the tap. If you have not had your water sampled or if you know, it is recommended that bottled or filtered water be used for drinking and preparing baby formula. If you need hot water, draw water from the cold tap and then heat it.

Do not boil water to remove lead. Boiling water will not reduce lead; however, it is still safe to wash dishes and do laundry. Lead will not soak into dishware or most clothes.

Use alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters.

Determine if you have interior lead plumbing or solder. If your home/building was constructed prior to 1987, it is important to determine if interior lead solder or lead pipes are present. You can check yourself, hire a licensed plumber, or check with your landlord.

Replace plumbing fixtures and service lines containing lead. Replace brass faucets, fittings, and valves that do not meet the current definition of “lead free” from 2014 (as explained above). Visit the NSF website at www.nsf.org to learn more about lead-containing plumbing fixtures.

Remove and clean aerators/screens on plumbing fixtures. Over time, particles and sediment can collect in the aerator screen. Regularly remove and clean aerators screens located at the tip of faucets and remove any particles.

Test your water for lead. Please call 732-530-2770 to find out how to get your water tested for lead. Testing is essential because you cannot see, taste, or smell lead in drinking water.

Get your child tested. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure. New Jersey law requires that children be tested for lead in their blood at both 1 and 2 years of age and before they are 6 years old if they have never been tested before or if they have been exposed to a known source of lead.

Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

Water softeners and reverse osmosis units will remove lead from water but can also make the water more corrosive to lead solder and plumbing by removing certain minerals; therefore, the installation of these treatment units at the point of entry into homes with lead plumbing should only be done under supervision of a qualified water treatment professional.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about lead exposure. You can find out more about how to get your child tested and how to pay for it at <https://www.state.nj.us/health/childhoodlead/testing.shtml>.

In July 2021, P.L.2021, Ch.183 (Law) was enacted, requiring all community water systems to replace lead service lines in their service area within 10 years. Under the law, the Red Bank Water Department is required to notify customers, non-paying consumers, and any off-site owner of a property (e.g., landlord) when it is known they are served by a lead service line*. Our service line inventory is available upon request.

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 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 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 number 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.

What are PFOA and PFOS?

Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (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. More information can be found at: [https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOS-websites-OLA%204-24-19SDM-\(003\).pdf](https://www.state.nj.us/dep/wms/bears/docs/2019-4-15-FAQs_PFOA-PFOS-websites-OLA%204-24-19SDM-(003).pdf)

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Cryptosporidium is usually removed through the filtration process and inactivated by other treatment processes. In order to check for the presence of Cryptosporidium, the USEPA issued the Long-Term Enhanced Surface Water Treatment Rule in January 2006. The NJAWC testing exhibited no detectable presence of cryptosporidium on any occasion. Cryptosporidium is effectively removed by filtration, consequently no finished water delivered by NJAWC has ever shown any presence of Cryptosporidium.

Chlorine / Chloramines: Water additives used to control microbes.

HAA5 and TTHM compliance is based on the Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

Red Bank Water Department Water Source Susceptibility Chart

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-nuclides			Radon			Disinfection Byproduct Precursors		
Sources	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Wells - 4			4			4			4			4			4		4				4		4	
GUDI - 0																								
Surface water intakes - 0																								

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.

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).

NJAWC Coastal North: Swimming River- Monmouth System – PWS ID# NJ1345001

Table of Detected Contaminants – 2022 Those substances not listed in this table were not found in the treated water supply.

DISINFECTANTS - Collected at the Treatment Plants							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Chloramines (ppm) (Surface Water)	2022	Yes	N/A	TT: Results \geq 0.2	1.25 ¹	1.25 - 2.99	Water additive used to control microbes.

1 - Data represents the lowest residual entering the distribution system from our surface water treatment plant.

DISINFECTION BYPRODUCTS - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Bromate (ppb)	2022	Yes	N/A	10	0	ND	By-product of drinking water disinfection.

TREATMENT BYPRODUCTS PRECURSOR REMOVAL - Collected at the Treatment Plant ¹							
Substance	Year Sampled	Compliance Achieved	MCLG	MCL	Lowest Compliance Result	Range Detected	Typical Source
Total Organic Carbon (TOC)	2022	Yes	N/A	TT: > 35% removal	30%	30% - 64%	Naturally present in the environment.
Ratio of Actual / Required TOC Removal	2022	Yes	N/A	TT: Running annual average > 1	1	1.0 - 1.5	Naturally present in the environment.

1 -Annual average of ratio removal compliance based on annual present of ratio removal. (Running annual average)

TURBIDITY - Collected at the Treatment Plant ¹							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Turbidity (NTU)	2022	Yes	N/A	TT: Results > 1 NTU	0.17	0.05 - 0.17	Soil runoff.
	2022	Yes	N/A	TT: At least 95% of samples <0.3 NTU	100%	N/A	Soil runoff.

1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

REGULATED SUBSTANCES - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Compliance Result	Range Detected	Typical Source
Barium (ppm)	2022	Yes	2	2	ND	N/A	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate (ppm)	2022	Yes	10	10	0.40	ND - 0.40	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.
Fluoride (ppm)	2022	Yes	N/A	2	0.44	ND - 0.44	Erosion of natural deposits; water additive that promotes strong teeth

PERFLUORINATED COMPOUNDS						
Substance (with units)	Year Sampled	Compliance Achieved	MCL	Highest Compliance Result	Range Detected	Typical Source
Perfluorononanoic acid (PFNA) (ppt)	2021	Yes	13	ND	ND	Manmade chemical; used in products for stain, grease, heat and water resistance
Perfluorooctanoic Acid (PFOA) (ppt)	2022	Yes	14	5.5	NA	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire fighting foams, cleaners, cosmetics, lubricants, paints, polishes, adhesives and photographic films
Perfluoropentanoic Acid (PFOS) (ppt)	2022	Yes	13	2.7	NA	Manmade chemical; used in products for stain, grease, heat and water resistance

OTHER SUBSTANCES OF INTEREST - Collected at the Treatment Plant							
Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Recommended Limit	Highest Result	Range Detected	Comments
Aluminum ¹ (ppm)	2022	N/A	N/A	0.2	0.03	ND - 0.03	Erosion of natural deposits
Iron ^{1, 2} (ppm)	2022	N/A	N/A	0.3	0.10	ND - 0.10	Naturally Occuring
Manganese ^{1, 3} (ppm)	2022	N/A	N/A	0.05	ND	ND	Naturally Occuring
Sodium ⁴ (ppm)	2022	N/A	N/A	50	75	34.5 - 75	Erosion of natural deposits

1 - Substances with Secondary MCLs do not have MCLGs and are not legally enforceable; these limits are primarily established to address aesthetic concerns.

2 - The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

3 -The recommended upper limit for iron is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the recommended upper limit could develop deposits of iron in a number of organs of the body.

4 - For healthy individuals the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet.

USEPA's Health Advisories are non-enforceable and provide technical guidance to states agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination

2018-2019 UCMR (Coastal North AM2 schedule was quarterly from Nov 2018, Feb 20219, May 2019 and Aug 2019-- these results are from entire sampling schedule of 2018-2019)

ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST - Water Leaving the Treatment Facility				
Parameter	Units	Average Result	Range Detected	Typical Source
Bromochloroacetic Acid	ppb	1.87	ND - 4.1	By-product of drinking water disinfection
Bromodichloroacetic acid	ppb	1.22	ND - 3.6	By-product of drinking water disinfection
Chlorodibromoacetic acid	ppb	0.43	ND - 2.5	By-product of drinking water disinfection
Dibromoacetic Acid	ppb	0.29	ND - 0.95	By-product of drinking water disinfection
Dichloroacetic Acid	ppb	5.1	0.64 - 20	By-product of drinking water disinfection
Monobromoacetic Acid	ppb	0.38	ND - 0.55	By-product of drinking water disinfection
Total Haloacetic Acids	ppb	9.2	ND - 22	By-product of drinking water disinfection
Total Haloacetic Acids - Br	ppb	3.4	ND - 8.3	By-product of drinking water disinfection
Total Haloacetic Acids-UCMR4	ppb	12.3	0.64 - 27	By-product of drinking water disinfection
Trichloroacetic Acid	ppb	4	ND - 11	By-product of drinking water disinfection
2-Methoxyethanol	ppb	ND	NA	Used as a solvent in varnishes, dyes, resins, airplane deicing solutions. It is also used in organometallic chemistry synthesis.
Manganese*	ppb	15.1	ND - 73	Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.

* Manganese has a Secondary MCL of 50 ppb.

Source Water Monitoring Monitoring Period 2015-2017					
Substance (2015-2017)	Units	Swimming River Plant	Jumping Brook Plant	Oak Glen Plant	Typical Source
Cryptosporidium	Oocysts/L	ND - 0.100	ND	ND	Microbial pathogens found in surface waters throughout the United States.
Giardia	Cysts/L	ND - 0.558	ND -0.089	ND - 0.558	Microbial pathogens found in surface waters throughout the United States.

DEFINITIONS

In the "Test Results" tables you may find some terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Nanograms per liter (ng/l) - nanograms per liter is a measure of a substance per liter of water

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.

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

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.

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

Total Organic Carbon - Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. The *Treatment Technique* for TOC requires that 35% - 45% of the TOC in the raw water is removed through the treatment processes.

Locational Running Annual Average (LRAA) - LRAA calculation is based on four completed quarters of results for disinfection byproducts at each individual monitoring location.

Turbidity – Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium microbial growth. Turbidity is measured as an indication of the effectiveness of the filtration process. The *Treatment Technique* for turbidity requires that no individual sample exceeds 1 NTU and 95% of the samples collected during the month must be less than 0.3 NTU.

Action Level - 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.

Maximum Contaminant Level Goal -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.

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.

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. Red Bank received monitoring waivers for synthetic organic chemicals.