



Water Quality Report 2018

Township of Franklin

English

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

Spanish

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.

Gujarati

આ અહેવાલ માં તમારા પીવાના પાણી વિષે
હિતકર ની માહિતી આપવા માં આવી છે.
એનો અનુવાદ કરો અથવા જેને સમજાવવા પડતી
જોય તેની સાથે કાલ કરો



Dear Water Consumer:

This 2018 Water Quality Report is an annual report to all water consumers on the quality of water provided by the Township of Franklin. This report meets the Federal Safe Drinking Water Act requirements for Consumer Confidence Reports.

This 2018 Water Quality report provides our customers with information on the sources of our drinking water, our water system, applicable health information and the concentrations of detected contaminants with a comparison to water quality regulations.

The Township of Franklin is committed to providing our customers with high quality drinking water and information about the drinking water that we provide. Our constant goal is to provide you with a safe and dependable supply of drinking water.

If you would like additional information or if you have any questions concerning this report, feel free to call the Township Water Department at 732.249.7800. You can also call the EPA Safe Drinking Water Hotline at 800.426.4791 for further information.

Sincerely,
Carl Hauck
Licensed Operator
Township of Franklin

Annual Drinking Water Quality Report

Franklin Township

For the Year 2019, Results from the Year 2018

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 water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are surface and well water from New Jersey American Water (which supplies most of our water), the Township of South Brunswick Water Department, the New Brunswick Water Department and the North Brunswick Water Department. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for all of these public water systems, which are 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 your public water system to obtain information regarding these Source Water Assessments.

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).

The Franklin Township Water Department and all its suppliers routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the results of ours and our suppliers monitoring for the period of January 1st to December 31st, 2018. The state allows all of us to monitor for some contaminants less than once per year because the concentrations of these contaminants does not change frequently. Some of the data, though representative, are more than one year old.

Franklin Township Water Department PWS ID# NJ1808001 Year 2018 Test Results						
Contaminant	Viol- ation Y/N	Level Detected	Units of Measure- ment	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Copper Result at 90 th Percentile 1 st ½ of 2018	N	0.38 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Copper Result at 90 th Percentile 2 nd ½ of 2018	N	0.29 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Result at 90 th Percentile 1 st ½ of 2018	N	2.7 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Lead Result at 90 th Percentile 2 nd ½ of 2018	N	1.7 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Range = 2 - 76 Highest LRAA = 53	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = 2 - 50 Highest LRAA = 22	ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine		Average = 1.0 ppm		4.0 ppm		4.0 ppm

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

The Franklin Township Water Department participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Franklin Township Water Department Unregulated Contaminant Monitoring

Contaminant	Level Detected	Units of Measurement	Likely source
Manganese	Range = 1.3 – 33.6 Average = 14	ppb	Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water.
Bromochloroacetic Acid	Range = ND – 3.3 Average = 1.1	ppb	By-product of drinking water disinfection
Bromodichloroacetic Acid	Range = ND – 0.37 Average = 0.09	ppb	By-product of drinking water disinfection
Chlorodibromoacetic Acid	Range = ND – 0.7 Average = 0.2	ppb	By-product of drinking water disinfection
Dibromoacetic Acid	Range = 0.3 – 0.6 Average = 0.5	ppb	By-product of drinking water disinfection
Dichloroacetic Acid	Range = 1.5 – 6.5 Average = 3.9	ppb	By-product of drinking water disinfection
Trichloroacetic Acid	Range = 0.8 – 10.3 Average = 4	ppb	By-product of drinking water disinfection

New Jersey American Water Company (Raritan System)						
PWS ID# NJ2004002						
Year 2018 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCL G	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Copper Result at 90 th Percentile	N	0.48 No samples out exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Result at 90 th Percentile	N	3 1 samples out of 53 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	Range = 1 - 2 Highest detect = 2	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Highest LRAA = 63	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Highest LRAA = 34	ppb	N/A	60	By-product of drinking water disinfection
Bromate	N	Range = ND – 2 Highest detect = 2	ppb	0	10	By-product of drinking water disinfection
Microbiological Contaminants						
Turbidity	N	100% < 0.3 Highest detect = 0.23 Range = 0.01 – 0.23	NTU	N/A	TT < 0.3 in 98% of monthly samples	Soil runoff
Total Organic Carbon (%)	N	Range = 1.1 – 3.5 Highest detect = 3.5	ppm	NA	TT = % removal	Naturally present in the environment
Regulated Disinfectants			Level Detected		MRDL	MRDLG
Chloramines			Range = 0.9 – 1.1		4.0 ppm	4.0 ppm

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

The U.S. EPA issued a rule in January 2006 that requires systems with higher Cryptosporidium levels in their source water to provide additional treatment. To comply with this rule, New Jersey American Water once again began conducting 24 consecutive months of monitoring for Cryptosporidium in our raw water sources in 2015 through 2017. We detected the organism in the raw source water during this testing. These samples were collected from the source before the water was processed through our treatment plant. In accordance with the requirements of EPA's Long Term 2 Enhanced Surface Water Treatment Rule, an additional treatment upgrade is in process at the Raritan- Millstone Plant for removal/inactivation of Cryptosporidium. For additional information regarding cryptosporidiosis and how it may impact those with weakened immune systems, please contact your personal health care provider. The data collected is presented in the Source Water Monitoring table.

Source Water Monitoring				
Contaminant (2015 – 2017)	Unit	Raritan-Millstone Plant	Canal Road Plant	Typical Source
Cryptosporidium	Oocysts/L	Range = ND – 0.9	ND – 0.46	Microbiological pathogens found in surface water
Giardia	Cysts/L	Range = ND – 0.62	ND – 0.73	Microbiological pathogens found in surface water

New Jersey American Water participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

New Jersey American Water Unregulated Contaminant Monitoring

Contaminant	Level Detected	Units of Measurement	Likely source
Chlorate	Range = ND – 310	ppb	Agricultural defoliant or desiccant; disinfection byproduct; used in the production of chlorine dioxide
Chromium (Total)	Range = ND – 1	ppb	Naturally-occurring element; used in the making of steel and other alloys; chromium -3 or -6 are used for chrome plating, dyes and pigments, leather tanning, and other wood preservation
Chromium (VI)	Range = 0.05 – 0.75	ppb	Naturally-occurring element; used in the making of steel and other alloys; chromium -3 or -6 are used for chrome plating, dyes and pigments, leather tanning, and other wood preservation
Strontium	Range = 79 - 176	ppb	Naturally-occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	Range = ND – 0.5	ppb	Naturally-occurring element metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

In 2018, New Brunswick monitored for Cryptosporidium, a microbial parasite commonly found in surface water, and found some evidence of these microbes in the raw, untreated source water. Although this organism is present, it is at levels low enough that no supplemental treatment is required by the New Brunswick water treatment facility, per USEPA standards. Current test methods do not enable us to determine if these organisms are capable of causing disease. We are not aware of a specific source of Cryptosporidium. Please contact your water supplier for additional information.

City of New Brunswick Water Department PWS ID# NJ1214001 Year 2018 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCL G	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Barium	N	0.04	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Result at 90 th Percentile	N	0.16 No samples out exceeded the action level	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Result at 90 th Percentile	N	4 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	0.99	ppb	N/A	N/A	Erosion of natural deposits
Nitrate (as Nitrogen)	N	0.53	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	0.59	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Microbiological Contaminants:						
Turbidity	N	100% of samples < 0.3 Highest detect = 0.27 Average = 0.08		N/A	TT 100% of samples < 0.3	Soil runoff, naturally present in the environment.
Total Organic Carbon (%)	N	Range = 1.14 – 1.65	ppm	NA	TT = % removal	Naturally present in the environment
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Highest LRAA = 59	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Highest LRAA = 29	ppb	N/A	60	By-product of drinking water disinfection
Organic Contaminants:						
Perfluoro nonanoic acid (PFNA)	N	Range = 0.0010 – 0.0022 Highest detect = 0.0022	ppb	N/A	0.013	Used in the manufacture of fluoropolymers
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine		Average = 0.9 ppm		4.0 ppm		4.0 ppm

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

The City of New Brunswick Water Department participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future 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 New Jersey Department of Environmental Protection (NJDEP) has proposed to issue 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. It is likely that NJDEP will adopt a final rule regarding the new MCLs before the end of 2019. New Brunswick's results for unregulated contaminants are from 2013, 2014 and 2018.

City of New Brunswick Water Department Unregulated Contaminant Monitoring

Bromide	ppb	N/A	N/A	Finished water = 25.2 Untreated water = 34.6		Yes	No	Naturally present in the environment; road salts
Chlorate	ppb	N/A	N/A	180	84 - 180	Yes	No	By-product of drinking water disinfection
Chromium (total)	ppb	N/A	N/A	0.47	ND - 0.47	Yes	No	Erosion of natural deposits
Perfluoro butanoic acid (PFBA)	ppb	N/A	N/A	0.011	N/A	Yes	No	Used in the manufacture of fluoropolymers
Perfluoro butane sulfonic acid (PFBS)	ppb	N/A	N/A	0.0021	N/A	Yes	No	Used in the manufacture of fluoropolymers
Perfluoro heptanoic acid (PFHpA)	ppb	N/A	N/A	0.004	0.0021 - 0.0040	Yes	No	Used in the manufacture of fluoropolymers
Perfluoro octane sulfonic acid (PFOS)	ppb	N/A	N/A	0.0072	N/A	Yes	No	Used in the manufacture of fluoropolymers
Perfluoro octanoic acid (PFOA)	ppb	N/A	N/A	0.008	N/A	Yes	No	Used in the manufacture of fluoropolymers
Strontium	ppb	N/A	N/A	95	84 - 95	Yes	No	Erosion of natural deposits
Vanadium	ppb	N/A	N/A	0.7	ND - 0.70	Yes	No	Erosion of natural deposits
Bromochloroacetic acid (BCAA)	ppb	N/A	N/A	3.4	1.1 - 3.4	Yes	No	By-product of drinking water disinfection
Bromodichloroacetic acid (BDCAA)	ppb	N/A	N/A	6.8	3.7 - 6.8	Yes	No	By-product of drinking water disinfection
Chlorodibromoacetic acid (CDBAA)	ppb	N/A	N/A	0.5	ND - 0.5	Yes	No	By-product of drinking water disinfection
Dichloroacetic acid (DCAA)	ppb	N/A	N/A	20	3.9 - 20	Yes	No	By-product of drinking water disinfection
Trichloroacetic acid (TCAA)	ppb	N/A	N/A	40	19 - 40	Yes	No	By-product of drinking water disinfection
Total Organic Carbon (TOC)	ppm	N/A	N/A	Finished water = 4.6 Untreated water = 6.6		Yes	No	Naturally present in the environment

South Brunswick Township Water Department PWS ID# NJ1221004 Year 2018 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCL G	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Barium	N	Range = ND – 0.08 Highest detect = 0.08	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	N	Range = ND – 0.9 Highest detect = 0.9	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	N	Range = 0.5 – 2.0 Highest detect = 2.0	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nickel	N	Range = 0.8 – 3.2 Highest detect = 3.2	ppb	N/A	N/A	Erosion of natural deposits
Copper Result at 90 th Percentile	N	0.05 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead Result at 90 th Percentile	N	2 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Range = ND - 60 Highest LRAA = 58	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = ND - 54 Highest LRAA = 25	ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants			Level Detected		MRDL	
Chlorine			Average = 0.5 ppm		4.0 ppm	
					4.0 ppm	

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

New Brunswick had a reporting violation in 2018. Results for Manganese and Iron were reported late to NJDEP due to a sample shipping error. Iron was not detected in the sample.

The South Brunswick Township Water Department participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

South Brunswick Township Water Department Unregulated Contaminant Monitoring

Contaminant	Level Detected	Units of Measurement	Likely source
Perfluorooctanoic Acid (PFOA)	Range = ND – 0.018	ppb	Man-made chemical used in the manufacture of fluoropolymers
Hexavalent Chromium	Range = ND – 0.1	ppb	Erosion of natural deposits. Discharges from steel and pulp mills.
N-nitrosopyrrolidine (NPYR)	Range = ND – 0.0033	ppb	Byproducts in chemical synthesis.

Lead: 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 Franklin Township Water Department and all of its drinking water suppliers are 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 second to 2 minutes before using water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water hotline or at <http://www.epa.gov/safewater/lead>.

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100% removal. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

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 “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:

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.

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

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

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.

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, not mandates.

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

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

Total Organic Carbon – Total Organ 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.

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.

If you have any questions about this report or concerning your water utility, please contact the Franklin Township Public Works Department at 732-249-7800 ext. 6414. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Town Council meetings.

We all work hard to provide top quality drinking 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.