



Water Quality Report 2013

Township of Franklin

Dear Water Consumer:

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
જરૂરની માહિતી આપવા માં આવી છે.
આનો અનુવાદ કરો અથવા જેને સમજાવવા પડશે
તેમ તેને આપે બાક ફરી

This 2013 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 2013 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.

We encourage you to read this report and become informed for the water quality test results in the 2013 calendar year. We hope you find this report informative and that the information provides you with a better understanding of what is involved in bringing high quality water to your faucet.

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,

Hongdar Chi

Licensed Operator

Township of Franklin



Annual Drinking Water Quality Report

Franklin Township

For the Year 2014, Results from the Year 2013

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 Company, the Township of South Brunswick Water Department and the New 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 of our 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, 2013. The state allows all of us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, are more than one year old.

Franklin Township Water Department						
PWS ID# NJ1808001						
Year 2013 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Copper Result at 90 th Percentile	N	0.4 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	7 2 samples out of 32 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Microbiological Contaminants:						
Total coliform Bacteria	Y	1 positive routine sample in February, 1 in April, 6 in June, 1 in July and 1 in September. 3 positive repeat samples in June and 1 in July.	positive monthly samples	0	5% of monthly samples	Naturally present in the environment
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Range = 5 - 63 Highest Average = 33 (LRAA)	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = ND - 35 Highest Average = 17 (LRAA)	ppb	N/A	60	By-product of drinking water disinfection
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 Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

We collect a minimum of 50 total Coliform Bacteria samples each month. 5% of those samples are allowed have positive results. All repeat – confirmation samples were negative, except in June when we had six positive repeat samples and in July when we had one, all subsequent samples were negative. Total Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

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>.

Unregulated Contaminant Monitoring (Franklin Township Water Department)

Contaminant	Level Detected	Units of Measurement	Likely source
Chromium (Total)	Range = 0.37 – 0.46 Highest detect = 0.46	ppb	Erosion of natural deposits

Chlorate	Range = 201 – 406 Highest detect = 406	ppb	Erosion of natural deposits
Strontium	Range = 86 – 151 Highest detect = 151	ppb	Erosion of natural deposits
Vanadium	Range = 0.32 – 0.48 Highest detect = 0.48	ppb	Erosion of natural deposits
Chromium VI	Range = 0.053 – 0.082 Highest detect = 0.082	ppb	Erosion of natural deposits

Franklin Township Water, New Jersey American Water Company, City of New Brunswick Water Department and South Brunswick Township Water Department participated in the Unregulated Contaminant Monitoring Rule (UCMR) in 2013. 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 Company (Raritan System) PWS ID# NJ2004002 Year 2013 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCL G	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Fluoride	N	Range = ND – 0.8 Highest detected = 0.8	ppm	2	2	Erosion of natural deposits; water additive promotes strong teeth
Nitrate (as Nitrogen)	N	Range = 0.3 – 1.6 Highest detected = 1.6	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfection Byproducts:						
Total Organic Carbon	N	Range = 0.9 – 2.8 Highest detected = 2.8	ppm	N/A	TT	Naturally present in the environment
TTHM Total Trihalomethanes	N	Highest Average = 47 (LRAA)	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Highest Average = 32 (LRAA)	ppb	N/A	60	By-product of drinking water disinfection
Bromate	N	Range = ND – 1.3 Highest detected = 1.3	ppb	0	10	By-product of drinking water disinfection
Microbiological Contaminants						
Total Coliform Bacteria (1)	N	0.4	positive monthly samples	N/A	5% of monthly samples	Naturally present in the environment
Turbidity (2)	N	100% < 0.3 Highest detected = 0.23	NTU	N/A	TT < 0.3 in 98% of monthly samples	Soil runoff
Radiological Contaminants						
Alpha emitters	N	Range = 3 - 5 Highest detected = 5	pCi/L	0	15	Erosion of natural deposits;
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chloramines (3)		Range = 0.6 – 1.0 ppm		4.0 ppm		4.0 ppm
Secondary Contaminant		Level Detected		Units of Measurement		RUL
Aluminum		Range = 0.01 - 0.03 Highest detected = 0.03		ppm		0.2
Sodium		Range = 28 - 97		ppm		50

Unregulated Contaminant Monitoring Rule (New Jersey American Water Company)

New Jersey American Water participated in the Unregulated Contaminant Monitoring Rule. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. For testing conducted in the Raritan System, the following substances were found.

Contaminant (4)	Units	NJDEP Guidance Level	Highest Level Detected	Range Detected	Use or Environmental Source
Perfluorooctanoic Acid (PFOA)	ppb	0.04	0.018	ND to 0.018	PFOA is a man-made chemical used in the manufacture of fluoropolymers. With non-stick and stain-resistant properties, fluoropolymers have wide application in common household products such as cookware, carpet and all-weather clothing.

Hexavalent Chromium	ppb	N/A	0.1	ND to 0.1	Major sources of hexavalent chromium (chromium-6) in drinking water are discharges from steel and pulp mills, and erosion of natural deposits of chromium-3. Hexavalent Chromium is not currently regulated as an individual substance. For more information on Hexavalent Chromium (Chromium 6), please visit our web site.
N-nitrosopyrrolidine (NPYR)	ppb	N/A	0.0033	ND to 0.0033	Nitrosamines can form as intermediates and byproducts in chemical synthesis and manufacture of rubber, leather, and plastics; can form spontaneously by reaction of precursor amines with nitrosating agents (nitrate and related compounds), or by action of nitrate-reducing bacteria. Foods such as bacon and malt beverages can contain nitrosamines; there is also evidence that they form in the upper GI tract.

1. Maximum percentage of positive samples collected in any one month.
2. 100% of the turbidity readings were below the treatment technique requirement of 0.3 NTU. 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.
3. Highest level detected is the maximum quarterly average. Range indicates the monthly averages detected.
4. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.
5. 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.
6. The New Jersey American Water Company exceeded the secondary Recommended Upper Limit (RUL) for Sodium. 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 RUL may be of concern to individuals on a sodium restricted diet.

City of New Brunswick Water Department PWS ID# NJ1214001 Year 2013 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Barium	N	0.41	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Antimony	N	0.41	ppb	6	6	Discharged from petroleum refineries, fire retardants, ceramics, electronics and solder.
Fluoride	N	0.06	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Chromium	N	ND	ppb	100	100	Erosion of natural deposits;
Nickel	N	1.94	ppb	N/A	N/A	Erosion of natural deposits
Nitrate (as Nitrogen)	N	0.33	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Microbiological Contaminants:						
Turbidity (1)	N	100% of samples < 0.3 Highest detect = 0.28	NTU	N/A	TT 100% of samples < 0.3	Soil runoff, naturally present in the environment.
Total coliform Bacteria	N	4 % Highest Monthly Level		0	5% of monthly samples	Naturally present in the environment
Disinfection Byproducts:						
TTHM (2) Total Trihalomethanes	N	Highest Average = 72 (LRAA)	ppb	N/A	80	By-product of drinking water disinfection
HAA5 (2) Haloacetic Acids	N	Highest Average = 30 (LRAA)	ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine		Average = 0.6 ppm		4.0 ppm		4.0 ppm

Unregulated Contaminant Monitoring (City of New Brunswick Water Department)

Contaminant	Level Detected	Units of Measurement	Likely source
Perfluoro butanic Acid (PFBA)	0.011	ppb	Used in the manufacture of fluoropolymers
Perfluoro octane sulfonic Acid (PFOS)	0.0072	ppb	Used in the manufacture of fluoropolymers
Perfluoro octanic Acid (PFOA)	0.008	ppb	Used in the manufacture of fluoropolymers
Strontium	Range = 84 – 120 Highest detect = 120	ppb	Erosion of natural deposits

Vanadium	Range = 0.31 – 0.44 Highest detect = 0.44	ppb	Erosion of natural deposits
Chromium VI	Range = 0.05 – 0.1 Highest detect = 0.1	ppb	Erosion of natural deposits
Chlorate	Range = ND – 410 Highest detect = 410	ppb	Erosion of natural deposits
Chromium (total)	Range = ND – 0.25 Highest detect = 0.25	ppb	Erosion of natural deposits

1. In March 2013, the New Brunswick Water Department experienced equipment failures that resulted in an exceedance of the limit for turbidity. A public notice was issued and the City continues to replace and upgrade equipment to prevent a recurrence. Turbidity is a measure of cloudiness in the water.
2. HAA5 and TTHM compliance is based on a Location Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

South Brunswick Township Water Department PWS ID# NJ1221004 Year 2013 Test Results						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Barium	N	Range = 0.005 – 0.76 Highest detect = 0.76	ppm	0.2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	N	Range = ND – 0.8 Highest detect = 0.8	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	N	Range = 1.5 – 2.2 Highest detect = 2.2	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Arsenic	N	< 2 ppb	ppb	N/A	5	Erosion of natural deposits
Microbiological Contaminants:						
Total Coliform Bacteria (1)	N	0	positive monthly samples	N/A	5% of monthly samples	Naturally present in the environment
Radioactive Contaminants:						
Alpha emitters	N	Range = 5.13 – 10.7 Highest detect = 10.7	pCi/l	0	15	Erosion of natural deposits
Combined Radium 228 & 226	N	Range = 1.58 – 2.65 Highest detect = 2.65	pCi/l	0	5	Erosion of natural deposits
Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Range = 1 - 66 Highest Average = 45 (LRAA)	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = ND - 32 Highest Average = 26 (LRAA)	ppb	N/A	60	By-product of drinking water disinfection
Regulated Disinfectants		Level Detected		MRDL		MRDLG
Chlorine		Average = 0.4 ppm		4.0 ppm		4.0 ppm
Secondary Contaminant		Level Detected		Units of Measurement		RUL
Sodium		Range = 4.4 – 59.3		ppm		50
Manganese		Range = 2 - 205		ppb		50
Iron		Range = ND-0.05		ppm		0.3
Sulfate		Range = 1.0-29.9		ppm		250

Unregulated Contaminant Monitoring (South Brunswick Water Department)

Contaminant	Level Detected	Units of Measurement	Likely source
Nitrosopyrrolidine (NPYR)	ND - <0.033	ppb	By-product of rubber, leather, and plastics manufacturing
Chromium	ND - <0.1	ppb	Erosion of natural deposits
Perfluorooctanic Acid (PFOA)	ND - <0.018	ppb	Used in the manufacture of fluoropolymers

The South Brunswick Township Water Department exceeded the secondary Recommended Upper Limit for Sodium and Manganese. 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 (RUL) may be of concern to individuals on a sodium restricted diet. Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water. Manganese is a naturally occurring element in soil, groundwater, and some surface waters. Manganese is considered harmless to health, however, they may give water an off taste or color, cause splotchy yellow stains on laundry, and clog water systems.

Township of Franklin
475 DeMott Lane
Somerset, NJ 08873-2737

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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 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 following table you will find 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.

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 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.

Turbidity - Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for 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. **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.**