Water Quality Report 2011

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 વિશે મહત્વ ની જાણકારી આપવા માં આવી છે. એનો ભાષાંતર કરો અથવા જેને સમજવા પડતી હોય તેની સાથે વાત કરો

Dear Water Consumer:

This 2011 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 2011 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 study the water quality test results for the 2011 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. We are pleased to report that, during the 2011 calendar year, our drinking water met all federal and state water quality standards.

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 ext. 6414. 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 2012, Results from the Year 2011

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, the North 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, 2011. 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 2011 Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Copper Test results Yr. 2010 Result at 90th Percentile	N	0.26 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. 2010 Result at 90th Percentile	N	2 1 sample out of 42 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Volatile Organic Contaminants – Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2011	N	Range = 5 - 25 Annual Average = 16	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2011	N	Range = 3 - 14 Annual Average = 9	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
Microbiological Contaminants:						
Total coliform Bacteria	N	2 positive routine samples in June, 1 in July, 1 in August and 3 in October 2011		0	5% of monthly samples	Naturally present in the environment

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. 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.

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. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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.

New Jersey American Water Company (Raritan System)

PWS ID# NJ2004002

Year 2011 Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Alpha emitters	N	Range = ND – 21 Highest average = 14.5	pCi/1	0	15	Erosion of natural deposits
Combined Radium 226 & 228	N	Range = ND – 1.1 Highest detect = 1.1	pCi/1	0	5	Erosion of natural deposits
Inorganic Contaminants:						
Antimony	N	Range = ND – 0.8 Highest detect = 0.8	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	Range = ND – 2 Highest detect = 2	ppb	n/a	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	Range = ND – 0.3 Highest detect = 0.3	Ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	N	Range = ND – 0.8 Highest detect = 0.8	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Copper Test results Yr. 2010 Result at 90th Percentile	N	0.5 No samples out exceeded the action level	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	Range = ND – 1.2 Highest detect = 1.2	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test results Yr. 2010 Result at 90th Percentile	N	5 3 samples out of 51 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	Range = ND - 7 Highest detect = 7	ppb	N/A	N/A	Erosion of natural deposits
Nitrate (as Nitrogen)	N	Range = ND - 5 Highest detect = 5	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Thallium	N	Range = ND – 0.8 Highest detect = 0.8	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Volatile Organic Contaminants / Disinfection Byproducts						
TTHM Total Trihalomethanes	N	Range = 3 - 99 Annual Average = 36	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = ND - 75 Annual Average = 16	ppb	N/A	60	By-product of drinking water disinfection
Dichloromethane (Methylene chloride)	N	Range = ND – 1.5 Highest detect = 1.5	ppb	0	3	Discharge from pharmaceutical and chemical factories
Trichloroethylene	N	Range = ND – 1.1 Highest detect = 1.1	ppb	0	1	Discharge from metal degreasing sites and other factories
Microbiological Contaminants						
Turbidity	N	99% < 0.3 Highest detect = 0.3	NTU	n/a	TT <0.3 in 98% of monthly samples	Soil runoff
Total Organic Carbon	N	Range = 1 - 3 Highest detect = 3	ppm	n/a	TT > 1% Removal	Naturally present in the environment

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chloramines	Range = 0.6 – 1.6 ppm Average = 1.1 ppm	4.0 ppm	4.0 ppm

Secondary Contaminant	Level Detected	Units of Measurement	RUL
Manganese	Range = ND – 100	Ppb	50
Sodium	Range = 10 - 62	Ppm	50

Unregulated Contaminants	Level Detected	Units of Measurement	Likely source
N-nitrosopyrrolidine (NPYR)	Range = ND – 0.003	Ppb	Byproduct from manufacturing of rubber, leather and plastics
fluorooctanic Acid (PFOA)	Range = ND – 0.05	Ppb	A man-made chemical used in the manufacture of fluoropolymers
Hexavalaent Chromium	Range = 0.08 – 0.99	Ppb	Discharges from steel and pulp mills

The New Jersey American Water Company exceeded the secondary Recommended Upper Limit (RUL) for manganese which is based on staining of laundry. Manganese is an essential nutrient, and toxicity is not expected from levels which would be encountered in drinking water.

The New Jersey American Water Company exceeded the secondary Recommended Upper Limit for Sodium. 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.

The New Jersey American Water Company, the City of New Brunswick Water Department and the South Brunswick Township Water Department participated in the Unregulated Contaminant Monitoring Rule, results from that testing is included in their respective test results table. 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.

City of New Brunswick Water Department
PWS ID# NJ1214001
Year 2011 Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants						
Combined Radium 228 & 226 Test results Yr. 2006	N	1.3	pCi/1	0	5	Decay of natural and man-made deposits
Inorganic Contaminants:						
Barium	N	0.04	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Result at 90th Percentile	N	0.02 No samples out exceeded the action level	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	0.04	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Result at 90th Percentile	N	2 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	2.5	ppb	N/A	N/A	Erosion of natural deposits
Nitrate (as Nitrogen)	N	1.3	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	0.5	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		N/A	TT 95% of samples < 0.3	Soil runoff, naturally present in the environment.
Volatile Organic Contaminants / Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Range = 5 - 80 Highest Annual Avg. = 53	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = 1 - 27 Highest Annual Avg. = 19	ppb	N/A	60	By-product of drinking water disinfection

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine	Range = 0.4 – 0.8 ppm	4.0 ppm	4.0 ppm

Unregulated Contaminants:						
Legionella	N	2 positives out of 16 samples		0	N/A	Found naturally in water, multiplies in heating systems
PFOA	N	0.018	ppb	N/A	N/A	Used in the manufacturing of fluoropolymers
PFOS	N	0.0077	ppb	N/A	N/A	Used in the manufacturing of fluoropolymers

City of North Brunswick Water Department
PWS ID# NJ1215001
Year 2011 Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Arsenic	N	0.6	ppb	n/a	5	Erosion of natural deposits; runoff from orchards; runoff from glass and

						electronics production wastes
Barium	N	0.03	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (as Nitrogen)	N	1	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Copper Test results Yr. 2010 Result at 90th Percentile	N	0.19 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. 2010 Result at 90th Percentile	N	3 1 sample out of 30 exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Chromium	N	0.6	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Volatile Organic Contaminants / Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Highest annual average = 49	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Highest annual average = 39	ppb	N/A	60	By-product of drinking water disinfection
Microbiological Contaminants:						
Turbidity	N	Highest detect = 0.48 99.9% lowest monthly avg.		n/a	TT	Soil runoff
Total coliform Bacteria	N	2 positive samples out of 48 in April 2011		0	5% of monthly samples	Naturally present in the environment
Regulated Disinfectants		**Level Detected**		**MRDL**		**MRDLG**
Chlorine		Average = 2.5 ppm		4.0 ppm		4.0 ppm

South Brunswick Township Water Department
PWS ID# NJ1221004
Year 2011 Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Barium	N	Range = 0.04 – 0.17 Highest detect = 0.17	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	N	Range = ND – 0.3 Highest detect = 0.3	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 – 3.6 Highest detect = 3.6	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Copper Test results Yr. 2010 Result at 90th Percentile	N	0.11 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. 2010 Result at 90th Percentile	N	ND No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel	N	Range = ND - 26 Highest detect = 26	ppb	N/A	N/A	Erosion of natural deposits
Volatile Organic Contaminants / Disinfection Byproducts:						
TTHM Total Trihalomethanes	N	Highest annual average = 27	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Highest annual average = 8	ppb	N/A	60	By-product of drinking water disinfection
Radioactive Contaminants:						
Alpha emitters	N	Range = ND – 4.3 Highest detect = 4.3	pCi/1	0	15	Erosion of natural deposits
Microbiological Contaminants:						
Total coliform Bacteria	N	1 positive routine sample in March, 2 in April 1 in May, 1 in August and 2 in October 2011		0	5% of monthly samples	Naturally present in the environment
Regulated Disinfectants		**Level Detected**		**MRDL**		**MRDLG**
Chlorine		Average = 0.4 ppm		4.0 ppm		4.0 ppm

South Brunswick Township Water Department collects a minimum of 40 total Coliform Bacteria samples each month. 5% of those samples are allowed have positive results. All repeat / confirmation 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.

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 following table 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.
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 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.

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

Postal Patron