

Quality on Tap 2012

East Brunswick Consumer Confidence Report

English

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

Arabic

المعلومات في هذا التقرير تحتوي على معلومات مهمة عن مياه الشرب التي تشربها. من فضلك اذا لم تفهم هذه المعلومات اطلب من يترجمها لك.

Mandarin

這份報告是有關您飲水的重要資料。請找人翻譯，或請懂的人解釋給您聽。

East Brunswick Water Utility

25 Harts Lane
East Brunswick, N.J. 08816



The East Brunswick Water Utility Advisor Board meets the 1st Thursday of every other month at the municipal building at 8:00 p.m. Residents are welcome to attend this meeting to discuss any questions or concerns they may have, or may call (732) 257-8313.

Township of East Brunswick-East Brunswick Water Utility

The Water Utility is operated as a subset of your municipal government. The Mayor and the Municipal Council serve as the Board of Directors for the Water Utility and in accordance with State Law, the Utility is able to share cooperatively with other municipal services to provide economies. The Utility is to operate on a self-sufficient basis which means revenues received from the sale of water to our more than 17,600 customers will cover the operating cost, debt service and required reserves. Because the Water Utility is a public purveyor of potable water, we must comply with the Federal Safe Drinking Water Act (SDWA) requirements. Those requirements delineate certain tests which must be performed and reported each year through a Consumer Confidence Report released to the general public. East Brunswick refers to their report as "Quality on Tap," and the information contained within is designed to help you understand where the water originates, how it is processed and delivered to East Brunswick. "Quality on Tap" is a report on the water delivered to your home. Besides the how, when and why, we report testing data, which at a minimum must be conducted. East Brunswick goes beyond the minimum data, as this report reflects testing through April 2012. The position held by the Mayor, Municipal Council and the members of the citizen's Water Policy Advisory

Committee, in conjunction with the water utility staff, is to provide you with the safest and most reliable water supply available. We hold to the precept that informed customers are our best allies in maintaining safe drinking water.

Quality Assurance

We assure our public that East Brunswick's drinking water meets or surpasses all Federal and State Drinking Water Standards. The treatment system is designed and operated to produce water which complies with all Federal and State Primary Drinking Water Standards. The State established Maximum Contaminant Levels (MCL) which are permitted in potable drinking water. Also, the Federal EPA has established certain guidelines which are used to determine public health risk. To insure compliance with all of these standards, East Brunswick relies upon a State Certified Laboratory to conduct testing. These test results, as well as all customer complaints, are reviewed on a monthly basis by a citizen's committee appointed by the Mayor and Municipal Council. The committee is known as the Water Utility Advisor Board and they hold meetings on the 1st Thursday of every other month at the municipal building. The meetings commence at 8:00 p.m. and the general public is always invited to participate in any discussion on water quality, service, delivery or pricing. Further information can be obtained by calling for information at (732) 257-8313.

Water Source

East Brunswick is located in what is referred to as the Raritan River Water Basin, although our raw water does not originate within the Raritan River. East Brunswick receives its water from the New Jersey Water Supply Authority which operates the Spruce Run/Round Valley Reservoir System in Hunterdon County and the Delaware and Raritan Canal Systems. The headwaters for the Delaware and Raritan Canal System actually come from the Delaware River Basin. The Delaware River Basin is a 13,500 square mile watershed comprising portions of Delaware, New Jersey, New York and Pennsylvania. The Delaware River and its tributaries provide the water supply needs for approximately 18,000,000 people including over half of New York City which is located outside the Delaware River Basin. The Delaware River Basin receives, on average, over 40 inches of rain per year and much of this water supply is held in reservoir storage in conjunction with a daily flow through the Delaware Raritan Canal. The flows of the tributaries and main stem of the Delaware River are regulated by the Delaware River Basin Commission (DRBC), a Federal/Interstate Compact Agency with regulatory authority over water resources in the Basin. The water flows are guided by the framework of a 1961 Compact which was developed after a 1954 U.S. Supreme Court Decree. The Decree granted water allocations to various states and mandated certain releases from New York reservoirs to maintain flow targets in the Delaware River. The water which comes from upstate New York and the mountains of Pennsylvania flows

through the many tributaries down the Delaware River and a portion of up to 100 million gallons a day, is transferred from the Delaware river through the D & R Canal to the Raritan River. It is at this point East Brunswick takes its water supply.

The two reservoirs, Spruce Run Reservoir and Round Valley Reservoir are operated in conjunction with the D & R Canal and are under the control of the New Jersey Water Supply Authority. The New Jersey Water Supply Authority contracts with various water companies to provide a guaranteed water supply. The Spruce Run Reservoir was constructed in 1963 and holds 11 billion gallons of water. The Round Valley Reservoir constructed in 1965 holds 55 billion gallons of water and daily the D & R Canal is permitted to transfer 100 million gallons a day from the Delaware River through the Canal to the Raritan River.

Engineering studies determining the minimum amount of water that can be released on a daily basis during the time of the most severe drought have been calculated. The Spruce Run/Round Valley Reservoir System in conjunction with the Delaware and Raritan Canal Supply has a safe yield of 225 million gallons per day (mgd) available to its water customers during the most severe time of drought. These customers have a guaranteed agreement with the New Jersey Water Supply Authority for an amount of 155 million gallons a day, thereby making available or holding in reserve a surplus of 70 million gallons a day. As growth occurs in the area, the capacity of the Round Valley Reservoir could increase from its current 55 billion gallons to

Continued on page 4

Local Water Utility Testing + Sampling Schedule

- 13 samples are collected weekly for Total Coliform (Bac-t). The New Jersey Department of Environmental Protection requires 50 samples per month.
- Stage 1 DBP quarterly samples for TTHMs and HAA5's were collected in the 1st quarter of 2012.
- Stage 2 DBP quarterly samples for TTHMs and HAA5's are collected in May, August, November and February.

- Iron & Manganese samples are collected yearly.
- Lead & Copper samples are collected every three years, and will be collected in 2013.
- Asbestos samples will be collected in 2013.

Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for East Brunswick Water which is available at www.state.nj.us/dep/swap or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550. The goal of the assessment was to measure each system's susceptibility to influences by potential sources of contamination.

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 the appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-232-4636.

The sources of drinking water (both tap and bottled) include rivers, lakes, streams, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can naturally pick up contaminants from animals or human activity. Contaminants which may be present in source water include:

Microbiological Contaminants: Microscopic living organisms such as bacteria, viruses, and parasites that, if not removed from the water supply or killed by disinfection with chlorine, may be harmful. They may come from wildlife, septic tanks, agricultural livestock, etc.

Inorganic contaminants, such as salt and metals, which can be naturally occurring or result from urban storm 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 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.

Trihalomethanes: Members of a group of organic chemicals that contain one carbon atom and three halogen atoms (chlorine, bromine, or iodine). They occur in chlorinated drinking water. Some people who drink water containing

trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Radionuclides: Unstable atoms of elements that emit radiation. They can be naturally occurring or as a result of man's activities.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Secondary Maximum Contaminant Level (SMCL's): Secondary levels represent reasonable goals for drinking water quality but are not enforceable, rather, they are intended as guidelines. Odor, color, taste and other aesthetic qualities are important factors in the public's acceptance and confidence in the public water system. States have encouraged the implementation of these SMCL's so the public will not be driven to obtain drinking water from potentially lower quality, higher risk sources.

Fluoride: Since the 1960's, by voter referendum, East Brunswick has added hydrofluosilic acid to its drinking water to maintain an optimum level of 1.0 ppm all year round.

When fluorides are supplied in a child's drinking water or diet through vitamin or other supplements, the developing primary and permanent teeth absorb protecting fluorides from the blood. This brings about a permanent strengthening of the tooth enamel's chemical structure. Fluoride added to drinking water is reported by various research to produce up to a 67% decrease in tooth decay. Once teeth have erupted, fluoridation offers less benefit. For this reason, it is important for you to know our water is fluoridated.

In order to ensure that tap water is safe to drink, EPA prescribed 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.

***Haloacetic Acids (HAA5):** A group of chemicals that are formed along with other disinfection byproducts when chlorine and other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.

Assuring a Safe and Dependable Water Supply

Additional information on the East Brunswick Water Utility is available for customers who seek information beyond that which is contained in this report. Annually, the budget is filed with the East Brunswick Public Library and full disclosure is available. Each year the Utility is audited by an independent firm and filed with the State of New Jersey. A copy of the audit is on file with the East Brunswick Public Library. Certain financial information is developed in what is referred to as a Generic Official Statement upon which investors in our bonds and capital financing rely. This document is available in the East Brunswick Public Library or upon request at the Finance Department. East Brunswick's staff participate in a broad range of water related activities. The staff serves on the State of New Jersey's Clean Water Council, participates with the American Water

Works Association (AWWA), the system operation is under a licensed operator licensed by the State of Department Environmental Protection. Each year staff spends many hours in training.

Twice each year the full distribution system inclusive of hydrants are flushed for the primary purpose of dislodging or removing any small particles of rust and sediment minerals that may deposit in the lines. The sediment minerals do not affect water purity, but during times of flushing they can cause some discoloration as they travel through the mains at high velocity.

We undertake a biannual hydrant flushing program and testing of hydrants for fire protection.

Water Quality Summary East Brunswick 2012/2013 Quality on Tap Report

PRIMARY STANDARDS	MCL	RESULT	VIOLATION	PRIMARY STANDARDS	MCL	RESULT	VIOLATION
MICROBIOLOGICAL CONTAMINANTS – Testing conducted weekly in 2012-2013				VOLATILE ORGANIC COMPOUNDS (continued)			
Total Coliform Bacteria	0 Colonies/100mL	0 Colonies/100 mL	NO	*1,1 Dichloroethane	50 ppb	<0.5 ppb	NO
INORGANIC CHEMICALS				*Methyl tertiary-butyl ether	70 ppb	<0.5 ppb	NO
*Antimony	6 ppb	<0.5 ppb	NO	*Naphthalene	300 ppb	<0.5 ppb	NO
*Arsenic	5 ppb	<0.5 ppb	NO	*1,1,2,2-Tetrachloroethane	1 ppb	<0.5 ppb	NO
*Barium	2 ppm	0.026 ppm	NO	*RADIUM 226-228	5 pci/l	<1 ND pci/l	NO
*Beryllium	4 ppb	<0.5 ppb	NO	Stage 1**	MCL	RAA	VIOLATION
*Cadmium	5 ppb	<0.5 ppb	NO	TRIHALOMETHANE	0.080 mg/l	0.062 mg/l	NO
*Cyanide	200 ppb	<20 ppb	NO	Stage 2:	MCL	RANGE	LRAA[†]
*Copper	1.3 ppm	0.3 ppm	NO	TRIHALOMETHANE			VIO.
Fluoride	4 ppm	0.06 ppm	NO	SITE #8: Old Stage Rd. & Summerhill Rd.	0.080 mg/l	0.0246 – 0.0497 mg/l	N/A
*Lead	15 ppb	3.2 ppb	NO	SITE #3: 334 Dunhams Corner Rd.	0.080 mg/l	0.0328 – 0.0635 mg/l	N/A
*Mercury	2 ppb	<0.2 ppb	NO	SITE #4: Old Bridge TPK	0.080 mg/l	0.0299 – 0.0424 mg/l	N/A
*Selenium	50 ppb	<0.5 ppb	NO	SITE #9: Riva Ave (Mikes Market)	0.080 mg/l	0.052 – 0.0565 mg/l	N/A
*Nickel	No MCL	1.2 ppb	NO	Stage 1**	MCL	RAA	VIOLATION
*Sodium	50 ppm	31.6 mg/l	NO	Total HAA5's	0.060 mg/l	0.028 mg/l	NO
*Thallium	2 ppb	<0.5 ppb	NO	Stage 2: Total HAA5's	MCL	RANGE	LRAA[†]
*Nitrate	10 ppm	1.57 ppm	NO	SITE #8: Old Stage Rd. & Summerhill Rd.	0.060 mg/l	0.0247 – 0.0395 mg/l	N/A
*LEAD AND COPPER – Tested in 2010 and met all state standards. We will be testing again in 2013.				SITE #3: 334 Dunhams Corner Rd.	0.060 mg/l	0.002 – 0.0392 mg/l	N/A
VOLATILE ORGANIC COMPOUNDS				SITE #4: Old Bridge TPK	0.060 mg/l	0.0288 – 0.0341 mg/l	N/A
*Benzene	1 ppb	<0.5 ppb	NO	SITE #9: Riva Ave (Mikes Market)	0.060 mg/l	0.0244 – 0.0373 mg/l	N/A
*Carbon Tetrachloride	2 ppb	<0.5 ppb	NO	SECONDARY STANDARDS			
*Chlorobenzene	50 ppb	<0.5 ppb	NO	PRIMARY STANDARDS	MCL	RESULT	VIOLATION
*1,2-Dichloropropane	5 ppb	<0.5 ppb	NO	*Chloride	250 mg/l	70.1 mg/l	NO
* Ethylbenzene	700 ppb	<0.5 ppb	NO	*Hardness (as CaCO ₃)	250 mg/l	98 mg/l	NO
*Styrene	100 ppb	<0.5 ppb	NO	Iron	0.3 mg/l	<0.1 mg/l	NO
*1,2,4-Trichlorobenzene	9 ppb	<0.5 ppb	NO	*Total Dissolved Solids	500 mg/l	225 mg/l	NO
*1,1,2-Trichloroethane	3 ppb	<0.5 ppb	NO	*Manganese	0.05 mg/l	<0.025 ug/l	NO
*Toluene	1 ppm	<0.0005 ppm	NO				
*Vinyl Chloride	2 ppb	<0.5 ppb	NO				
*1,2 Dichloroethane	2 ppb	<0.5 ppb	NO				
*Xylenes	1 ppm	<0.0005 ppm	NO				

*Values used for compliance are averages of samples taken five times over the course of the 2012-2013 calendar year.

**Stage 1 monitoring is no longer required and is superseded by Stage 2

†The LRAA cannot be calculated since Stage 2 monitoring began during the second quarter of 2012.

UNREGULATED CONTAMINANTS

East Brunswick Water Utility's bulk water supplier, Middlesex Water Company, tested for and did not detect Cryptosporidium. East Brunswick as a surface water supplier is not required to test for Radon.

CUSTOMER COMMENT LOG

A customers' comment log is kept by the Water Utility to record all consumer calls with a record of action taken to solve the issues.

HOW TO READ THIS TABLE

This report is based upon tests conducted in the year 2012-2013. Terms used in the "Quality on Tap" report and in other parts of this report are defined here.

Maximum Contaminant Level or MCL: 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 or MCLG: 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.

Action level: The concentration of a contaminant which, if exceeded, is a trigger point requiring a water system to take remedial action.

Treatment Technique: A required process to reduce the level of a contaminant in drinking water.

KEY TO ABBREVIATIONS

MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal

MFL = million fibers per liter

pci/l = picocuries per liter (a measure of radioactivity)

ppm = parts per million, or milligrams per liter (mg/l) this corresponds to 1 penny in \$10 thousand

ppb = parts per billion, or micrograms per liter (ug/l) this corresponds to 1 penny in \$10 million

mg/l = milligrams per liter

ND = non-detected

< = less than symbol

Consumer Confidence Report Information on Five Additional Chemicals Regulated in New Jersey

Contaminant	New Jersey MCL (ppb)	MCL in CCR Units	MCLG*	Major Sources in Drinking Water	Health Effects Language
meta-Dichlorobenzene	600	600	600	Discharge from industrial chemical factories.	Some people who drink water containing meta-dichlorobenzene in excess of the MCL over many years could experience problems with their liver, kidneys or circulatory system.
1,1-Dichloroethane	50	50	N/A	Discharge from metal degreasing sites and other factories.	Some people who drink water containing 1,1-dichloroethane in excess of the MCL over many years could experience problems with their kidneys.
Methyl tertiary-butyl ether (MTBE)	70	70	70	Leaking underground gasoline & fuel oil tanks, gasoline and fuel oil spills.	Some people who drink water containing MTBE in excess of the MCL for many years could experience problems with their kidneys.
Naphthalene	300	300	N/A	Discharge from industrial chemical factories, exposure to mothballs	Some people who drink water containing naphthalene in excess of the MCL over many years could experience problems with cataracts and hemolytic anemia.
1,1,2,2-Tetrachloroethane	1	1	N/A	Discharge from industrial chemical factories.	Some people who drink water containing 1,1,2,2-tetrachloroethane in excess of the MCL over many years could experience problems with their liver, kidneys and central nervous system.

State of New Jersey Department of Environmental Protection Mandated Information

The following section has been provided by the New Jersey Department of Environmental Protection — Water Supply Administration — Bureau of Safe Drinking Water. In accordance with New Jersey State Public Laws of 1999, chapter 362, which was signed on January 14, 2000, we are repeating on a verbatim basis the information supplied as part of this Consumer Confidence Report.

Special Considerations Regarding Children, Pregnant Women, Nursing Mothers and Others

Children may receive a slightly higher amount of a contaminant present in the water than do adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects are used for calculating a drinking water standard if these effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data of reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Lead: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home plumbing. If you are concerned about elevated lead levels in your home water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791). We will continue testing in this year as required.

Arsenic: EPA is reviewing the drinking water standards for arsenic because of special concerns that may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations.

About Lead in Drinking Water

“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 East Brunswick Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Water Conservation

The Raritan Basin and, particularly, East Brunswick is considered to be water rich. This sometimes can lead to waste of a very valuable natural resource — WATER. Therefore, water conservation should be important to everyone. The following is advice on water conservation.

Water Source *Continued from page 1*

75 billion gallons by raising the height of the dams and dikes. Therefore, East Brunswick customers are guaranteed a continuous and high quality supply of water for the foreseeable future.

East Brunswick’s raw water supply is treated and delivered to East Brunswick under contract with Middlesex Water Company. Several years ago, Middlesex Water Company invested more than \$40,000,000 to upgrade their water treatment plant to insure high quality and a sophisticated treatment system which will meet all standards. All water treated and delivered to East Brunswick by Middlesex Water Company must comply with the Federal EPA and State DEP, Bureau of Safe Drinking Water regulations. Middlesex Water Company provides us with copies of their State certified laboratory testing results which are reviewed by the Water Policy Advisory Committee. Once the water is received by East

Brunswick, it is again tested by a State certified laboratory and, if need be, treated prior to being delivered to you, the customer. Customers may obtain a copy of the Middlesex Water Company’s report by visiting www.middlesexwater.com.

East Brunswick is working with the New Jersey Water Supply Authority and other water customers who are under contract with the Authority, in conjunction with the Federal U.S.G.S. to conduct a study of the raw water characterization. This study helps all water customers understand better what elements must be treated, and during what seasons. The study analyzed 18 water quality constituents by taking more than 800 samples at 21 different sites. A broad spectrum of tests were conducted and the results of the study are available at the East Brunswick Public Library. Also, you can receive updates at www.RaritanBasin.org.