

# South Brunswick Township 2016 Water Quality Report

## CONTACTS FOR ADDITIONAL INFORMATION:



South Brunswick  
Township  
Water Division  
P.O. Box 190  
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NJ 08852  
Phone 732-329-4000,  
Ext. 7262 (Tim Lesko)



New Jersey Department of  
Environmental Protection  
Bureau of  
Safe Drinking Water  
Phone 609-292-5550



United States  
Environmental Protection  
Agency  
Drinking Water Hotline  
Phone 1-800-426-4791



Visit us on the Web at:  
[www.twp.SouthBrunswick.NJ.US](http://www.twp.SouthBrunswick.NJ.US)  
or the EPA's Safe Drinking  
Water Web site at:  
[www.epa.gov/safewater/](http://www.epa.gov/safewater/)

## ~ Public Participation ~

South Brunswick Township holds public council meetings on the 2nd and 4th Tuesday of the month at 8:00 P.M. Meeting information may be obtained by calling 732-329-4000, extension 7301, or by viewing Comcast Cable Television, channel 3.

## South Brunswick Township PWS ID# 1221004

The water for South Brunswick Township is obtained from deep wells in the Farrington Aquifer which underlies the Dayton area of the Township. The Township also purchases water from the New Jersey American Water Company (NJAW Co.).

## ~ Sources of Contaminants ~ Health Information

The sources of both tap and bottled water include rivers, lakes, streams, ponds, 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 pick up substances resulting from the presence of animals or from human activity. 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

*Fluoridation of the entire South Brunswick Township water supply went into effect on December 1, 2002. Fluoride levels will be maintained at 0.7 mg/l. You should consult with your pediatrician to make sure this amount is adequate for your child.*

## Vulnerable Populations Statement:

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 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 microbial contaminants are available from the EPA's Safe Drinking Water Hotline (1-800-426-4791).

## *Contaminants that may be present in source water include:*

-  Microbial contaminants - Viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
-  Inorganic contaminants - Salts and metals which can be naturally occurring or result from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
-  Organic chemical contaminants - These include synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
-  Radioactive contaminants - Naturally occurring or the result of oil and gas productions and mining operations.
-  Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

*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.*

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at [www.state.nj.us/dep/swap/](http://www.state.nj.us/dep/swap/) or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550.

The source water assessment performed on our three sources determined the following: Susceptibility ratings for **entry point to the distribution system (EPTDS)**

### *Table 11: Susceptibility Rating for EPTDS*

*Contaminant Category*

<i>EPTDS ID</i>	<i>EPTDS Name</i>	<i>Well Number</i>	<i>Contaminant Category</i>								
			<i>Pathogens</i>	<i>Nutrients</i>	<i>Pesticides</i>	<i>VOCs</i>	<i>Inorganics</i>	<i>Radionuclides</i>	<i>Radon</i>	<i>DBPs</i>	
			Rating	Rating	Rating	Rating	Rating	Rating	Rating	Rating	
01	Jamesburg Rd WTP Block 31 Lot 35	11/TP	L	H	M	H	M	H	M	H	
03	Georges Rd WTP Block 12 Lot 1	13	L	H	M	H	H	H	M	H	
05	Broadway Rd WTP Block 1 Lot 15	15	M	M	L	H	L	H	M	M	
	Miller Rd WTP Block 6 Lot 4	16	The DEP has not rated Well #16								

# Primary Drinking Water Standards ~ 2016

	MCLG	MCL	Maximum Level Detected	Highest Month	Total # of Samples Taken	Compliance Achieved
Total Coliforms	0	5% of monthly samples	0	N/A	676	Yes

## Disinfection By-Products

Parameter	MCLG PPB	MCL PPB	Maximum Level Detected	Detected Range	Highest Running Annual Average	Compliance Achieved
Trihalomethanes	0	80	59.9 UG/L	ND - 59.9 UG/L	37.0 PPB	Yes
Five Haloacetic (HAA-5)	0	60	21.5 UG/L	ND - 21.5 UG/L	11.0 PPB	Yes

**2016 disinfection by-products sampling schedule:** • **May** – 1st quarter samples are collected for TTHMs and HAA5's • **August** – 2nd quarter samples are collected for TTHMs and HAA5's • **November** – 3rd quarter samples are collected for TTHMs and HAA5's • **February** – samples are collected for TTHMs and HAA5's. \*By product drinking water chlorination.

## Nitrate/Nitrites

Parameter	MCLG PPM	MCL PPM	NJAW Co Interconnection	South Brunswick Twsp Well Water	Compliance Achieved
Nitrate	10	10	0.6 - 1.2	ND -2.2	Yes

\*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. Source: Runoff from fertilizer use; leaching from septic tanks sewage; erosion of natural deposits.

## Radionuclides

Parameter	MCLG	MCL	NJAW Co Interconnection	South Brunswick Twsp Well Water pCi/L	Compliance Achieved
Gross Alpha	0	15 pCi/L	N/D	ND - 12.5	Yes
Radium 226 Radium 228 Combined	0	5 pCi/L	N/D	ND - 3.65	Yes

\*Radionuclides: During 2008, treatment units were installed in Wells #11 and #13 for the removal of Radium 226 and 228. These units will go into service in June 2009. Radium 226 & 228: Some people who drink water containing Radium 226 & 228 in excess of the MCL over many years may have an increased risk of incurring cancer.

## Lead & Copper

Parameter	MCLG	MCL	South Brunswick Twsp 90th Percentile Detected Level	Compliance Achieved
Lead	0 PPB	AL = 15 PPB	2.0 PPB	Yes
Copper	1.3 PPM	AL = 01.3 PPM	0.054 PPM	Yes

\*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. South Brunswick Township 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>.

## Inorganic Chemicals

Parameter	MCLG PPB	MCL	NJAW Co Interconnection, PPB	South Brunswick Twsp Well Water	Compliance Achieved
Arsenic	N/A	5	N/A	N/D	Yes
Barium	200	2000	N/A	36.8 - 137.0 PPB	Yes
Fluoride	4.0	4.0	0.06 - 0.7	ND - 0.9 PPM	Yes

\*Sources: *Arsenic*: Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes. *Barium*: Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. *Fluoride*: Added to water at therapeutic levels to maintain concentrations of .8 to 1.0 ppm. The maximum contaminant level (MCL) for arsenic in 2007 was 50 ppb. Our water system was in compliance with the MCL in 2007. Our water system will not be required to conduct additional actions to come into compliance with the new arsenic MCL of 5 ppb which will be in effect in 2007. You should be aware that some people who drink water containing arsenic in excess of the new MCL of 5 ppb over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

## Unregulated Contaminants

Contaminants	Unit	NJDEP Guidance Level	Highest Level Detected	Range Detected	Compliance Achieved
Perfluorooctanoic Acid (PFOA)	PPb	0.04	<0.020	ND - <0.020	Yes
Chromium	PPb	N/A	<0.1	ND - <0.1	Yes
Nitrosopyrrolidine (NPYR)	PPb	N/A	0.0033	ND - <0.0033	Yes

\**Unregulated Contaminant Monitoring Rule*: Unregulated contaminants are those for in 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 regulation is warranted.

If a system is rated highly susceptible for a contamination category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

NJDEP found the following potential contaminant sources within the source water assessment areas for our sources:

### **Pathogens**

Disease-causing organisms such as bacteria, protozoa, and viruses. Sources of pathogens include both point and nonpoint activities. An example of a point source of pathogens is a sewer system overflow. An example of a nonpoint source is runoff from areas where livestock are kept.

### **Nutrients**

Common types of nutrients include nitrogen and phosphorous. Nutrients can harm environmental quality, human health, and the efficiency of the drinking water treatment plant by encouraging growth of photosynthetic microorganisms in surface water sources, which alter water characteristics (eutrophic conditions). Sources of nutrients are point and nonpoint sources. Effluents from a sewage treatment plant are a point source of nutrients. Nonpoint sources of nutrients include discharge from septic fields, areas where animal waste is stored, and runoff from agricultural and residential land where fertilizers are used.

### **Pesticides**

Common sources of pesticides include land applications (nonpoint sources) and manufacturing/distribution centers of pesticides (point source). Pesticides are manmade chemicals used to control bacteria, fungi, weeds, rodents, and insects. Examples include herbicides such as atrazine and insecticides such as chlordane.

### **Synthetic Organic Compounds (SOCs)**

Sources of SOCs can be point and nonpoint. Common sources include chemical manufacturing plants, pharmaceutical plants, sewage treatment plants, and discharges from contaminated sites. Synthetic organic compounds are manmade.

### **Volatile Organic Compounds (VOCs)**

Common types of VOCs include chemicals that are used as solvents, degreasers, and gasoline components. VOCs are manmade compounds and are the most common organic contaminants in ground water in New Jersey. Sources of VOCs can be point and nonpoint. Examples of VOCs are methyl tertiary butyl ether (MTBE), benzene and vinyl chloride.

### **Inorganic**

Mineral-based compounds that are both naturally occurring and manmade. Sources of inorganics can be point and nonpoint; common sources include discharges from manufacturing plants, releases from contaminated sites, past land uses, and naturally occurring sources. Inorganic include arsenic, cadmium, copper, lead, mercury, and asbestos.

### **Radionuclides**

Sources of radionuclides can be point and nonpoint; common sources include the decay of naturally occurring minerals, leaching of subsurface material (for example rocks and sedimentary materials) into ground water, and improper disposal of radioactive waste. Radionuclides are a category of contaminant that is both naturally occurring and manmade. Radionuclides are radioactive substances such as radium and radon.

### **Disinfection Byproduct (DBP) Precursors**

Disinfection byproducts are formed when the disinfectants used to kill pathogens during treatment react with dissolved organic material present in the water. A common source of DBP precursors is naturally occurring organic material such as leaves in surface water. The amount of organic matter, the type of disinfectant, the concentration of disinfectant, time of contact, pH, and temperature all have an effect on the concentration of disinfection byproducts produced. Chlorine is the most common disinfectant used in New Jersey.

If you have questions regarding the source water assessment report or summary please contact the Bureau of Safe Drinking Water at [swap@dep.state.nj.us](mailto:swap@dep.state.nj.us) or 609-292-5550.

# Secondary Drinking Water Standards ~ 2016

These compounds affect aesthetic quality, but do not pose a health risk. (See note\*)

Parameter	Recommended Secondary Limits	South Brunswick Township Annually	Compliance Achieved
Iron	0.30 PPM	ND	Yes
Manganese	0.05 PPM	ND - .201 PPM	Yes
Sodium	50	7.36 - 36.4 PPM	Yes
Sulfate	250 PPM	4.3 - 36.6 PPM	Yes

\*Secondary Drinking Water Standards - There are no MCLGs for secondaries. Major Sources: Erosion of natural deposits

South Brunswick Township Water Department has exceeded the Secondary Water standard guidelines that the Department of Environmental Protection sets. The **(Recommended Upper Manganese Limit)** of 0.05 was exceeded in 2015 in our Dayton Wells. Secondary Standard levels are set for aesthetic reasons and the Department of Environmental Protection agency requires notification to our customers. The Manganese level tested range in our seasonal wells is ND - 0.173 mg/l. In 2016 the seasonal wells were below the recommended limits.

The recommended upper limit for manganese is based on staining of laundry. Manganese is an essential nutrient, and toxicity is NOT expected from high levels which would be encountered in drinking water.

*While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing the arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

## Abbreviations / Definitions:

Symbol	Definition	Symbol	Definition
<	The results are less than the number listed.	TT	Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.
≥	The results are greater than or equal to the number listed.	PCi/L	Pico Curie - A unit used to measure radiation.
MCL	Maximum Contaminant Level - 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.	N/A	Not Applicable
MCLG	Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.	ND	Not Detectable at testing limit.
AL	Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.	ppb	Parts per billion or micrograms per liter (equates to one day in about 2,729,726 years).
		ppm	Parts per million or milligrams per liter (equates to one day in about 2,739.7 years).
		MDL	Minimum Detection Limit - The lowest level at which a compound may be detectable.
		USEPA	United States Environmental Protection Agency
		NJDEP	New Jersey Department of Environmental Protection



***Make sure all family members know where the main shut-off valve is located in the house and keep this valve accessible. This could prevent serious flooding and property damage if a pipe bursts.***



***Leaky toilets are one of the biggest causes of high water bills. Periodically, remove the lid from the tank and check the interior parts to assure they are working properly. If the water level is too high, the water can run down the overflow tube wasting water.***





South Brunswick Township Water Division  
P.O. Box 190  
Monmouth Junction, NJ 08852

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New Brunswick, NJ  
Permit No. 1

*Make sure all family members know where the main shut-off valve is located in the house and keep this valve accessible. This could prevent serious flooding and property damage if a pipe bursts.*



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