

This Annual Report includes the test results on the water quality of the Old Bridge Municipal Utilities Authority (Old Bridge MUA) for the 2019 calendar year. Of the eighty-eight (88) contaminants that are regulated, only six (6) contaminants were actually detected in very small quantities. In every case, the quantities found were less than the maximum levels allowed by regulations. Also included is information concerning the source of the water supply, a table showing information on the six (6) detected contaminants, the definition of terms used in the table and the maximum levels allowed by regulation.

OLD BRIDGE WATER EXCELS

Dear Customer:

The Old Bridge Municipal Utilities Authority is pleased to share with you our Annual Consumer Confidence Report, in our ongoing effort to keep the public informed. I urge you to read this report carefully so you can be better informed about your drinking water.

Our professionals are continually working to ensure a continuous supply of safe and reliable drinking water. In this mission, we concentrate our efforts to provide the highest quality drinking water in accordance with all State and Federal standards for safe drinking water.

Because water flows so effortlessly from the tap, it's easy to forget the enormous amount of science, technical experience and infrastructure at work insuring the 24/7 treatment and distribution of one of life's most basic needs, WATER.

Sincerely,



Guy Donatelli
Executive Director

THE SOURCE AND TREATMENT OF THE WATER SUPPLY

The Old Bridge MUA obtains water from a combination of its own groundwater sources, and also from surface water sources of the Middlesex Water Company. Middlesex Water Company obtains the surface water from the Delaware and Raritan Canals and also from the Spruce Run and Round Valley Reservoirs. The surface water source is withdrawn from the canal at an intake and pumping station in New Brunswick and transported to the Middlesex Plant in Edison for treatment. The finished water is then transported to Old Bridge via a network of distribution mains from Edison to Old Bridge Township. The groundwater source is obtained from the Old Bridge MUA's eight (8) wells. The wells extend underground one hundred feet (100') to four hundred feet (400') into two (2) separate groundwater aquifers. The shallower aquifer, located at one hundred feet (100') is called the Old Bridge Aquifer, and the deeper aquifer, located at four hundred feet (400') is called the Farrington Aquifer.

The water is pumped out of the two (2) aquifers to a treatment plant for removal of contaminants utilizing the most advanced and reliable treatment practices for our source of water. These treatment methods eliminate or minimize the effects of contaminants, as well as improve aesthetic qualities, such as taste, odor, and color. After treatment, the water is sent into the Old Bridge MUA distribution system. The Old Bridge MUA provides its customers an average of 6.5 million gallons per day of safe drinking water. The Old Bridge MUA produces approximately 3.5 million gallons per day from our own treatment plants, and purchases approximately 3.0 million gallons per day of treated water from Middlesex Water Company. The water from Middlesex Water Company and the Old Bridge MUA wells are mixed within the water distribution system. The Old Bridge MUA sells approximately 600,000 gallons per day of water to Aberdeen Township. In addition to the interconnection with the Middlesex Water Company and Aberdeen Township, the Old Bridge MUA has interconnections with Perth Amboy and Marlboro Township. The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment Reports and Summaries for all public water systems in 2004. Further information on the Source Water Assessment Program can be obtained by logging onto NJDEP's Source Water Assessment Web Site 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 us at (732) 679-4187.

In July 2010, the Old Bridge Municipal Utilities Authority launched its official web-site which can be found at HYPERLINK "<http://www.obmua.com>". The web-site contains information for customers, potential bidders and developers concerning our rates, news, meeting dates and minutes, contact information, bid documents, commercial and contractor documents and Frequently Asked Questions (FAQ's). Please visit our site and add it to your "Favorite" list for future reference.

Also follow us on our Facebook page "Old Bridge Municipal Utilities Authority" for the latest information and postings concerning emergency work and other important information.

OLD BRIDGE MUNICIPAL UTILITIES AUTHORITY TEST RESULTS

The table below lists all the drinking water contaminants that were detected during the most recent testing in the calendar years of 2017 and 2019. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State allows us to monitor for some contaminants less than once per year, because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. The Safe Drinking Water Act Regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals, and synthetic organic chemicals. Our system received a monitoring waiver for synthetic organic compounds.

If you would like to obtain additional information concerning specific test results, or if you have comments concerning this report, please call the OBMUA at 732-679-4187. If you prefer to make your comments in person, our office is located at 15 Throckmorton Lane, Old Bridge. Our Authority Meetings are usually held monthly on the third Wednesday night of each month at 7:00 PM at the Township Complex.

Contaminant	MCLG	MCL	Max. Level Detected	Range of Detection	Violation Yes/No	Likely Source of Contamination
Inorganic						
Barium (PPM) (2017)	2	2	0.037	0.013 to 0.037	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (PPM) (2017)	4	4	0.58	ND to 0.58	NO	Erosion of natural deposits; discharge from fertilizer or aluminum factories.
Lead (PPB) (Based on 90th percentile)	0	AL=15	(90th percentile)=N.D.	# of sites above AL (15)=0	NO	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (PPM) (Based on 90th Percentile)	0	AL=1.3	(90th percentile)=0.0379	# of sites above AL (1.3)=0	NO	Corrosion of household plumbing systems. Erosion of natural deposits; Leaching from wood preservatives.
Organic						
Total Trihalomethanes (PPB) ENTIRE SYSTEM	0	80	LRAA=37.25*	3.17 to 75.6**	NO	By-product of drinking water disinfection
Five Haloacetic Acids (PPB) ENTIRE SYSTEM	0	60	LRAA=28.28*	2.97 to 43.57**	NO	By-product of drinking water disinfection

* The Locational Running Annual Average (LRAA) values are compared to the Maximum Contaminant Level (MCL) to determine compliance with Drinking Water Standards.

** The Range of Detection values are not used to determine compliance with Drinking Water Standards.

Abbreviations:

MCLG: Maximum Contaminant Level Goal

MCL: Maximum Contaminant Level

pCi/l: Picocuries per liter

AL: Action Level

PPM: Parts Per Million

PPB: Parts Per Billion

ND: None Detectable at Laboratory Testing Limits

NA: Not Applicable

LRAA: Locational Running Annual Average

Definitions Used in the Table Above:

Maximum Contaminant Level Goal - The level of a contaminant in drinking water below which there is no known or expected risk to health. The MCLG's allow for a margin of safety.

Maximum Contaminant Level - The highest level of a contaminant that is allowed in drinking water, MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Picocuries per liter - A measure of radioactivity.

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

Waiver - The State permission to reduce monitoring frequency, because previous results have consistently been below the MCL.

Parts Per Million - One part of contaminant to one million parts of water. This corresponds to approximately one (1) second in twelve (12) days.

Parts Per Billion - One part of contaminant to one billion parts of water. This corresponds to approximately one (1) second in thirty-two (32) years.

Locational Running Annual Average - The average number for a test site over four consecutive quarters.

Unregulated Contaminant Monitoring Rule

The EPA is currently studying certain contaminants that have yet to be regulated with an established maximum contaminant level value. In order to aid the EPA in their research and testing, the Old Bridge MUA performed testing in accordance with the requirements of the Unregulated Contaminant Monitoring Rule. The following contaminants were detected with the average values and ranges shown in the table.

Contaminant	Average Values (PPB)	Range of Values (PPB)
Monobromoacetic Acid	0.04	0.00 to 0.30
Dichloroacetic Acid	6.83	0.80 to 20.10
Trichloroacetic Acid	6.45	0.00 to 19.80
Bromochloroacetic Acid	2.83	0.80 to 4.60
Bromodichloroacetic Acid	2.63	0.70 to 4.30
Dibromoacetic Acid	0.68	0.50 to 0.90
Chlorodibromoacetic Acid	0.83	0.60 to 1.10
Manganese	0.72	0.49 to 0.95

Why There May Be Contaminants in the 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:

1. **Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
2. **Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
3. **Pesticides and Herbicides**, which may come from a variety of sources, such as agricultural, urban stormwater runoff, and residential uses.
4. **Organic Chemical Contaminants**, including 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.
5. **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.

Absolutely pure water does not exist in nature. 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 **Environmental Protection Agency's Safe Drinking Water Hotline at (1-800-426-4791)**.

SOURCE WATER ASSESSMENT REPORTS

The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment Reports and Summaries for all public water systems in 2004. Further information on the Source Water Assessment Program can be obtained by logging onto NJDEP's Source Water Assessment Web Site 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 at (732) 679-4187. The source water assessment performed on our eight (8) sources determined the following.

Source Name	Contaminant Category Susceptibility Rating							
	Pathogens	Nutrients	Pesticides	VOC's	Inorganics	Radionuclides	Radon	DBPs
BT WELL 1	M	M	L	H	H	H	M	M
BT WELL 2	L	M	L	H	H	H	M	M
BT WELL 3	M	M	L	H	H	H	M	M
BT WELL 4	M	L	L	H	H	H	M	M
OB WELL 10	M	H	L	H	H	H	M	M
OB WELL 11	M	H	L	H	H	H	M	M
OB WELL 12	L	M	L	L	H	H	L	M
OB WELL 6R	L	M	L	L	H	H	M	M

L = Low
M = Medium
H = High

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.

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Pesticides: Man-made chemicals used to control pests, weeds, and fungus. Common sources include land application, and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Volatile Organic Compounds (VOC's): Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples included arsenic, asbestos, copper, lead and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Disinfection Byproduct Precursors (DBP's): A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

OLD BRIDGE

MUNICIPAL UTILITIES AUTHORITY

Annual Consumer
Confidence Report

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OLD BRIDGE MUA EMERGENCY FUEL STORAGE

NJ I-Bank Project of the Week: Old Bridge MUA Emergency Fuel Storage Facility. Authority Receives \$1,390,180 in Water Bank Loans Estimated Savings to rate payers of \$597,496.

The Old Bridge Municipal Utilities Authority recently completed construction of an emergency fuel storage facility with approximately \$1.4 million in loans from the NJ Water Bank, a joint low-rate funding program of the DEP and the NJIB. This project qualified for principal forgiveness totaling \$261,519 as it addressed damage from Superstorm Sandy and improved resilience for future storms. Including interest cost savings, total savings for this project are estimated to be \$597,496 over the 20-year term of the loan or 42% of the total project cost. In addition, this project created an estimated 16 direct construction jobs.

The project included the construction of an emergency fuel storage facility and the installation of two 10,000-gallon fuel storage tanks. Also included were fuel pumps and a shed for housing monitoring and safety equipment.

For Your Safety

A Message for People with Compromised Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 healthcare providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Environmental Protection Agency's Safe Drinking Water Hotline at (1-800-426-4791).

SPECIAL PRECAUTIONS CONCERNING 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 Old Bridge Municipal Utilities Authority is responsible for providing high quality drinking water, but can not 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 thirty (30) seconds to two (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 (1-800-426-4791) or at <http://www.cpa.gov/safewater/lead>.**

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

Gujarati આ અહેવાલ માં તમારા પીવાના પાણી વિષે અગત્ય ની જાણકારી આપવા માં આવી છે. એનો અનુવાદ કરો અથવા જેને સમજણ પડતી હોય તેની સાથે વાત કરો.