

Washington Township Municipal Utilities Authority May 2018

PWS ID#0818004

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water quality 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 and are pleased to report that our drinking water is safe and meets all Federal and State requirements.

All of our water supply is ground water. We have 16 wells. We draw water from three different aquifers. There are 8 wells in the Potomac-Raritan-Magothy Aquifer, 5 in the Cohansy Aquifer, and 3 in the Mt. Laurel-Wenonah Aquifer.

Our treatment facilities consist of adding fluoride to maintain an optimum concentration of .08 to 1.2 parts per million throughout the system, adding lime to keep the pH above 7, adding a corrosion inhibitor and adding chlorine for disinfection.



There is an air stripping process at our Well 18 site to remove all traces of volatile organic compounds. This project was funded by the New Jersey Department of Environmental Protection Agency. The NJDEP Spill Fund also provided funds to construct an air stripping process at Well 16 to remove volatile organics.

The WTMUA obtained a low interest loan from NJDEP to construct a radium removal plant at wells 10 and 11 in 2005. The initial cost was approximately four million dollars.

The WTMUA is currently using the same technology and equipment at the Well 18 site.

The plants will ensure we meet both current and future radiological requirements while providing safe, quality drinking water.

In 2016 the WTMUA once again obtained a low interest loan from the NJEIT to drill a replacement well for Well 2 and to construct a well house for Well 8. The



WTMUA was also able to paint the three million gallon tank on Egg Harbor Rd. and the stand pipe on Fries Mill Rd.

In order to maintain a safe and dependable water supply, we sometimes need to make improvements such as the Radium Treatment Plants that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments.

We believe in education and strongly urge our employees to attend various classes and seminars on water treatment processes and distribution system operations. The Superintendent holds the required and additional Water Treatment and Water Distribution Licenses. Eight other employees also hold various State Licenses.

In the table that follows, 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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years, or a single penny in 10,000,000,000,000.

Picocuries per liter (PCI/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

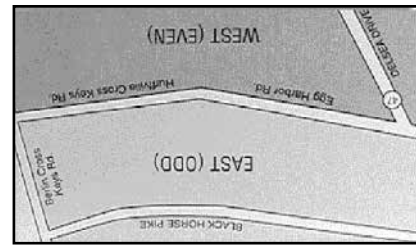
- continued on Page Two

Drinking Water Quality Report

Limited water conservation measures will be instituted by the Washington Township Municipal Utilities Authority from May 1 to September 15, of the current year. Beginning May 1, there will be a ban in effect on non-essential outdoor uses of water by the residential and commercial customers between the hours of 11:00 a.m. through 6:00 p.m. Non-

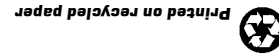
essential use includes the sprinkling of lawns, washing of cars and filling of pools. The ban will be in effect through September 15. Outside use of water may take place before 11:00 a.m. and from 6:00 p.m. through 11:00 a.m. on odd/alternate days based on an even calendar day system, which has been established on a geographical basis as detailed by the following map.

essential use includes the sprinkling of lawns, washing of cars and filling of pools. The ban will be in effect through September 15. Outside use of water may take place before 11:00 a.m. and from 6:00 p.m. through 11:00 a.m. on odd/alternate days based on an even calendar day system, which has been established on a geographical basis as detailed by the following map.



SUMMER WATER CONSERVATION MEASURES

NOTICE



Washington Township
Municipal Utilities Authority
P.O. Box 127
Grenloch, NJ 08032



PRSRST STD
U.S. POSTAGE
PAID
Deptford, NJ
PERMIT No. 185

- continued from Page Three

- 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 that 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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to increase their risk of developing the described health effect.

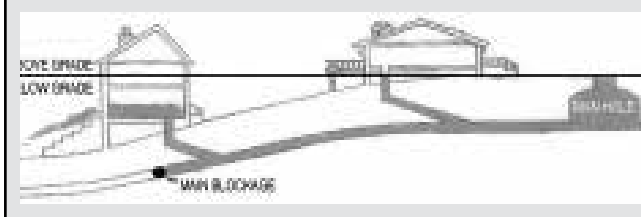
We, at the WTMUA work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

If you have any questions about this report or concerning your water utility, please contact Matthew Mallon, Superintendent at 227-0880. 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 meetings. Meeting dates and times can be found on our website at www.wtmua.com.

CHECK VALVES

If you have a shower, sink or toilet in your house that's beneath street level, a sewer main blockage can cause sewage to back up into your home. To prevent this from happening, New Jersey law requires every homeowner with a below-grade fixture to have a "check valve" installed.

A check valve will shut off the pipe leading to the facility below ground level and prevent sewage from backing up into your home. If you don't have a check valve, there are several kinds available. Contact the Superintendent of the WTMUA At (856)227-0880 between 8 a.m. and 4 p.m. to find out which would be most appropriate for your system. If you have a check valve, make sure it receives maintenance yearly.



Start saving!

Look for products with the WaterSense label for your bathroom and lawn, use a WaterSense irrigation partner for your landscape watering system, and visit www.epa.gov/watersense to find easy practices you can undertake at home to reduce your water bill and environmental impact!



- continued from Cover Page

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.

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

RAA - Running Annual Average

RUL - Recommended Upper Limit - the limit recommended not to exceed.

Treatment Technique (TT) - a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

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.

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.

The WTMUA routinely monitors for constituents in your drinking water according to Federal and State laws. All detected constituents were under the maximum contaminant level. 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 monitoring waivers for asbestos, synthetic organic chemicals and a reduction in volatile organic chemicals. The table that follows shows the results of our monitoring for the period of January 1 to December 31, 2017.

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 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 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, is more than one year old.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements.

We have learned through our monitoring and testing that some constituents have been detected. We conduct multi-sampling at ten points of entry into the water distribution system during the course of the year. The detected level shown in this report was the highest level detected during the course of the year. Any other detected levels were all lower.

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 bodyweight 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

Test Results

SUBSTANCE	VIOLATION Y/N	LEVEL DETECTED	RANGE OF DETECTED LEVELS	UNIT MEASUREMENT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION	HEALTH EFFECTS
RADIOACTIVE								
1. Gross Alpha	N	5.763 RAA	5.763 RAA	pCi/L	0	15	Erosion of Natural Deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
2. RA 226/228 combined	N	4.445	4.445	pCi/L	0	5	Erosion of Natural Deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
u	N	.422	.422	Ug/L	0	30		
TTHM/HAA5 - STAGE 2								
Sample Point ID	Site Description	Site Type	Locational Running Annual Average (LRAA)	80 PPB	By-product of drinking water disinfection.	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 system, and may have an increased risk of getting cancer.		
Well 10	M.U.A. Shop	High HAA5 High TTHM	.000 MG/L 0.15MG/L					
Well 18	Bunker Hill Middle School	High HAA5 High TTHM	.000 MG/L 4.362 MG/L					
Well 20	Fries Mill Pavillions (Dr. Venuti's Office)	High HAA5 High TTHM	.000 MG/L 1.675 MG/L					
Well 5	Orchard Valley Middle School	High HAA5 High TTHM	.000 MG/L 2.45MG/L					
NITRATE/NITRITE								
Nitrate	N	5.03	<0.12-5.03	ppm	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits	Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate 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 as advice from your health care provider.
SECONDARY								
Sodium	N	91.4	10.8-91.4	ppm	50	RUL 50	Naturally occurring in	For healthy individuals, the 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 may be of concern to individuals on a sodium restricted diet.
Chlorides	N	37.5	2.38-37.5	ppm		RUL 250		
VOLATILE ORGANICS								
MTBE	N	1.52	0-1.52	PPB		70	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills.	Some people who drink water containing MTBE in excess of the MCL over many years could experience problems with their kidneys.
LEAD AND COPPER (Samples were collected from 30 homes)								
SUBSTANCE	VIOLATION Y/N	ACTION LEVEL	AMOUNT DETECTED 90TH PERCENTILE	MCLG	UNIT MEASUREMENT	SITES ABOVE A.L.		
Lead	N	15	3.3	0	PPB	0	Corrosion of household plumbing systems; erosion on natural deposits; leaching of wood preservatives	
Copper	N	1,300	150.5	1,300	PPB	0	Corrosion of household plumbing systems erosion of natural	

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 or by contacting the NJDEP Bureau of Safe Drinking Water at 609-292-5550.

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors			
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Wells - 16		1	15	4		12		4	12	3		13		11	5	4	10	2		6	10			16	
GUDI - 0																									
Surface water Intakes - 0																									

The table above illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), low (L) for each contaminant's category. For susceptibility ratings of purchased water, refer to the specific water system's water system's source water assessment report. If a system is rated highly susceptible for a contaminant 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 of any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

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 on 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 standard 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: 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 WTMUA 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>.

Sodium: For healthy individuals, the 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 may be of concern to individuals on a sodium restricted diet.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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.

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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.