

The Willingboro Municipal Utilities Authority

is located at
 433 John F. Kennedy Way.
 Willingboro, New Jersey 08046-2119
 (609) 877-2900
 FAX (609) 835-4645
 Office Hours Are Monday through Friday
 9:00 am until 4:30 pm.

Public Meetings of the Authority's Board of Commissioners are held on the third Tuesday of each month. Meetings begin at 3:30 PM and are held in the Public Meeting Room at the Authority Office.

CHAIRMAN'S MESSAGE

Dear Customer:

We at the Willingboro Municipal Utilities Authority are pleased to present the Annual Water Quality Report to you, our customers. This Report tells you about your water: where it comes from, how it is treated; and what it contains. Except as otherwise indicated, this report covers analyses taken in 2007

Substances such as sodium, iron, manganese, copper, calcium and chlorides are commonly found in drinking water. They occur naturally and at trace levels are not harmful. This report is designed to inform you about the quality water that we have delivered to you over the past year.

Our experienced staff works diligently to provide this water to nearly 50,000 consumers in the Willingboro area. This Authority vigilantly safeguards its water supply and distribution systems.

If you have any questions about this Report or the quality of your water, please call our Laboratory Manager, Jim Rudnicki at (609) 877-4583.



Dennis W. Reiter, Chairman
 Authority Members

Mr. Dennis W. Reiter, Chair

Dr. Paul L. Stephenson, Vice-Chair

Mr. William S. Hall, Commissioner

Mr. Thomas M. Scholtis, Commissioner

Paul W. Krane, Commissioner

Ms. Ayisha D. Gordon, Alternate Commissioner

Mrs. Selia McFadden, Alternate Commissioner

A Safe Drinking Water Source

The Willingboro Municipal Utilities Authority (WMUA) provides water to its customers from six ground water wells located throughout Willingboro. In some mandatory language throughout this Report references are made to surface water such as lakes, rivers, streams and reservoirs. Our sole source of supply is from these wells that can provide up to 10 million gallons per day (mgd) of water. This provides all the water our consumers can use and allows us to provide water to Mount Laurel and Evesham Twp. The WMUA does not use any other source of supply.

Ground water wells use the natural filtering capability of the aquifer to remove harmful bacteria and other substances from the water. These wells are all located in the Potomac-Raritan-Magothy aquifer. An aquifer is water collected in soil formations deep in the ground. Although under stress from over pumping in some areas, (the Critical Area) it remains a safe and dependable source of water for much of the South Jersey area. Water samples are analyzed in our own NJ Certified Lab and other NJ Certified Laboratories. Thousands of tests are conducted each year. Regular testing helps to ensure high water quality.

The WMUA has four (4) treatment plants that use the best available technology to ensure that we are providing water that exceeds all Federal and State water quality standards. This treatment chlorinates the water supply for disinfection, lime addition for pH control, and fluoridation.

EPA
Safe Drinking Water Hotline
(800) 426-4791

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 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 standards are based.

Source Water Assessment Reports

The NJ Dept. of Environmental Protection has completed and issued the Source Water Assessment Report and Summary for our public water systems, which is available at www.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

A public water system's susceptibility rating (L for Low, M for Medium or H for High) is a combination of two factors. H, M, and L ratings are based on the potential for contaminant to be at or above 50% of the drinking water standard or MCL (H), between 10 and 50% of the standard (M) and less than 10% of the standard (L).

The source water assessment performed on our 7 wells (sources) determined the following:

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-Nuclides			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	
Sources																									
Wells-7		2	5	4		3				7	4		3	2	2	3	4	1	2		3	4	1	5	1
GUDI-0																									
Surface Water intakes	THE WMUA DOES NOT USE ANY SURFACE WATER																								

Pathogen: 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 manmade. Examples include nitrogen and phosphorus.

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

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Inorganics: Mineral based compounds that are both naturally occurring and man-made. Examples include

arsenic, copper, lead, asbestos, and nitrate.

Radionuclide: 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: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens reacts with dissolved organic material present in surface water.

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 contaminant and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. NJDEP found potential contaminant sources within the source water assessment area for our sources. The report is available at www.state.nj.us/dep/swap or by requesting a copy from our office by calling (609) 877-2900.

Required Additional Health Information

The following descriptive language is required by the New Jersey Department of Environmental Protection *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.

About Nitrate and Lead

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 infants and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The WMUA 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 form 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 (1-800-426-4791), or at <http://www.epa.gov/safewater/lead>.

WILLINGBORO MUNICIPAL UTILITIES AUTHORITY

2008 Report to Consumers on Water Quality

During the past year we have taken thousands of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people with cancer undergoing chemotherapy; people 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791)

WATER QUALITY DATA TABLE

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

	Unit of Measure	Highest level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Annual Range	Major Sources in Drinking Water	
REGULATED - INORGANIC							
Nitrate	ppm	10	10	4.26	<0.5 - 4.26	Runoff from fertilizer use, erosion of natural deposits	
Arsenic	ppb	5		<0.002	<0.002	Erosion of natural deposits, runoff from orchards	
Barium	ppm	2		0.138	0.0616-0.138	Erosion of natural deposits, discharged from drilling wastes	
Nickel	ppm	0.1		0.0143	<0.002-0.0143	Erosion of natural deposits	
Sulfate	ppm	250		32.8	23.8-32.8	Erosion of natural deposits	
Fluoride	ppm	4		0.73	0.70-0.73	Water additive which promotes strong teeth	
REGULATED - VOLATILE ORGANIC CONTAMINANTS							
Methyl-t-butyl ether (MTBE)	ppb	70	70	0.97	ND - 0.97	Discontinued gasoline additive	
1,1 Dichloroethane	ppb	50	50	0.35	ND-0.35	Discharge from chemical factories	
Total Trihalomethanes (THMS)	ppb	80	NA	14.28	3.11-14.28	By-product of drinking water chlorination	
Total Haloacetic Acids (HAA5)	ppb	60	60	5.74	0-5.74	By-product of drinking water disinfection	
NON-REGULATED VOC							
Bromodichloromethane	ppb	Non-Regulated	NA	0.9	ND-0.9	By-product of drinking water chlorination	
Chloroform	ppb	Non-Regulated	NA	1.92	ND-1.92	By-product of drinking water chlorination	
Dibromochloromethane	ppb	Non-Regulated	NA	0.85	ND-0.85	By-product of drinking water chlorination	
IOCs/SECONDARY CONTAMINANTS (RUL) Recommended Upper Level							
Sodium	ppm	50	NA	14	8.86-14.0	Erosion of natural deposits	
Chloride	ppm	250	NA	33.4	33.4-12.4	By-product of drinking water disinfection	
Iron	ppm	0.3	NA	0.0283	0.0283	Erosion of natural deposits	
Copper	ppm	1		0.0261	<0.01-0.0261	Erosion of natural deposits	
Manganese	ppm	1		<0.01	<0.01	Erosion of natural deposits	
Zinc	ppm	5		0.0346	<0.005-0.0346	Erosion of natural deposits	
RADIOLOGICAL CONTAMINANTS							
Radium 226	pCi/L		0	1.92	<1-1.92	Erosion of natural deposits	
Radium 228	pCi/L		0	3.75	<1-3.75	Erosion of natural deposits	
Gross Alpha	pCi/L		0	14.2	<3-14.2	Erosion of natural deposits	
Uranium	mg/l		0	0.0013	<0.001-0.0013	Erosion of natural deposits	
Uranium	pCi/L		0	0.88	0.062-0.88	Erosion of natural deposits	
LEAD/COPPER ANALYSIS (every 3 years Distribution Tap Samplings)							
	Action Level	90th Percentile Result	Number of Homes	# Sites Exceeding Action Level	Sample		
Lead	ppm	0.015	<0.002	32	0	<0.002-0.0094	Corrosion of household plumbing
Copper	ppm	1.3	0.361	32	0	0.0358-0.475	Corrosion of household plumbing
**Required sample sites for distribution survey for LEAD/COPPER 2008 Analysis: 30							
Willingboro classified TIER 3: Single family structures that contain copper pipe with lead solder installed before 1983							
ASBESTOS							
Asbestos Fibers	mf/L	7 Million Fibers/Liter		<0.15	<0.15	Decay of cement/asbestos drinking water pipes	

Table Definitions

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

MCL (Maximum contaminant level) – the “maximum allowed” 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

MCLG (Maximum contaminant level goal)– the “Goal” 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.

Mf/L Million fibers per Liter

NA (Not Applicable)

ND (Non-Detects) - laboratory analysis indicates that the constituent is not present at a detectable level.

N/R (Not Regulated)- no MCL has been identified because these substances are unregulated

pCi/l - (Pico curies per liter) - a measure of radioactivity

PPM or MG/L (Parts per million or milligrams per liter) – One part per million. This corresponds to one minute in two years or a single penny in \$10,000.

PPB or µG/L (Parts per billion or micrograms per liter) – one part per billion. This corresponds to one minute in 2000 years, or a single penny in \$10,000,000.

RUL Recommended Upper Limit

U (Standard units) a unit of measurement.

What Is A Maximum Contaminant Level?

Maximum Contaminant Levels (MCL's) are set at very stringent levels for health effects. In order to experience the potential 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 have a one-in-a-million chance of having any adverse health effects.

Waivers

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 synthetic organic compounds (SOC's). SOC's include substances like pesticides, herbicides and plasticizers. This waiver was given after extensive analyses of the aquifer.