



Mount Laurel Township  
Municipal Utilities Authority

**Mount Laurel  
Township MUA's 2009  
Consumer Confidence Report  
"THE STATE OF YOUR  
WATER QUALITY"**



**A Message About Your Drinking Water**

We at Mount Laurel MUA are pleased to take this opportunity to share with you our water quality results for 2009. Our water professionals are focused on providing the highest quality water, which is reflected in our results. In 2009, over 33,000 analyses were performed and the results in this report confirm that your tap water not only meets federal and state standards for drinking water, but it surpasses them.

Every day we deliver, on average, 4 million gallons of water to the community, with summer months supply increasing up to 10 million gallons per day. We continue to investigate alternative water supply sources, from surface water treatment to water reuse, to ensure our community has a safe, economical and dependable water supply now and in the future. We also continue to make the necessary investments to maintain our facilities, so we can deliver this quality water directly to your tap 24 hours a day, 365 days a year.

Through the continued efforts of our diligent staff we are still able to provide water at less than a penny a gallon. Our customers are our top priority and we are proud to provide you with the highest quality drinking water possible.

Sincerely,  
**Pamela J. Carolan**  
Pamela J. Carolan, P.E.  
Executive Director

**Municipal Utilities  
Authority  
Members and Staff**

Chairman Carl V. Buck, III  
Vice Chairman Irwin Edelson  
Secretary Frederick Braun  
Member Elwood Knight  
Member James Misselwitz  
Executive Director Pamela J. Carolan, P.E.

If you have questions about your drinking water, call 234-0062 and ask for Chuck Bernheimer.

MUA Board meetings are held at 6:00PM, the third Thursday of every month at the MUA's facility located at 41 Elbo Lane.

**Groundwater Rule – 4-Log Treatment Certifications**

The Mount Laurel MUA is pleased to announce that the Elbo Lane Water Treatment Facility and the Well #7 Aquifer Storage & Recovery Facility, as part of the Environmental Protection Agency's (EPA's) Groundwater Rule, have received certification from the New Jersey DEP confirming 4 log virus removal/inactivation treatment. EPA's Groundwater Rule allows water systems to certify that a drinking water system using groundwater can achieve 4-log removal/inactivation of viruses; i.e. 99.99% removal/inactivation. Removal/inactivation occurs through filtration and/or disinfection. Achieving this level of treatment depends on the unique conditions of the system; i.e. storage time, water temperature, peak flow and chlorine concentration. Inactivation is a function of the disinfectant concentration and the amount of time the water spends in contact with the disinfectant before the first service connection. This rule requires that this level of disinfection be maintained at all times. If this level of virus inactivation is not maintained the MUA is required to notify the public that the loss of 4 log treatment has occurred. This notification would apply only to 4 log treatment, and would not be an indicator that the normally required disinfection residuals were not maintained. If you have any questions regarding this rule, please visit the EPA website ([www.epa.gov/safewater/disinfection/gwr/regulation.html](http://www.epa.gov/safewater/disinfection/gwr/regulation.html)) or contact the Mount Laurel MUA's water department for more information.

visit us online at [www.mltmua.com](http://www.mltmua.com)



Mount Laurel Township Municipal Utilities Authority's

**2009 Consumer Confidence Report**

**Where Does Your Water Come From?**

Your drinking water comes from a blend of sources. Due to the number of our water supply source locations, interconnectivity of our distribution piping network and relative complexity of our purchase agreements, we are unable to definitively determine from which supply source you receive your water. You should assume that your water comes from a mixture of the sources detailed within this report.

The Mount Laurel Township Municipal Utilities Authority (MLTMUA) pumps water from three deep wells within the Potomac-Raritan-Magothy (PRM) aquifer. The quantity of water that we are permitted to pump during any given minute, month or year is strictly regulated by the New Jersey Department of Environmental Protection (NJDEP). In 1995 the NJDEP severely and permanently reduced our permitted annual pumping capacity to a quantity far below what is needed to service Mount Laurel. Consequently we must augment our well water supply from other sources. Currently those sources are the Willingboro MUA (WMUA) and the NJ-American Water Company (NJAWC), but the MLTMUA continues to pursue alternate sources of water.

The WMUA obtains all of its water from the PRM aquifer. NJAWC supplies water from three sources: surface water from the Delaware River (the majority of our purchase from NJAWC), and ground water from the PRM and Mount Laurel-Wenonah aquifers.

**How Your Water Quality Is Protected**

The Safe Drinking Water Act was first passed in 1974 and has been updated numerous times since, the latest being 1996. Its purpose was to develop monitoring requirements and implement standards for hazardous substances in drinking water. The NJDEP administers this Act to protect the quality of your drinking water. The frequency of the MLTMUA's Water Quality Monitoring Program far exceeds the state required intervals. We feel this higher level of quality control is required in order for us to deliver the finest possible water.

Currently, the MLTMUA has received sampling waivers for asbestos and synthetic organic contaminants. Waivers are issued by the NJDEP following a thorough review of past water quality results and vulnerability studies for specific contaminants due to geographic location. In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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.

**Explanation of Expected Contaminants**

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 materials 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production and mining or farming.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff and septic systems.

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

**More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).**

**Why is there chlorine in my drinking water?**

Without appropriate disinfection, your water could become harmful. According to the EPA and health agencies, chlorine is currently one of the most effective disinfectants to kill harmful microorganisms. We add chlorine at the optimal level in order to comply with all state and federal standards.

**Do I need a water softener to reduce hardness?**

The most apparent effect of hardness is seen in your water's ability to create soap foam. The optimal level for hardness in drinking water is 75 to 100 mg/l. The hardness of our water is within this range; therefore a water softener should not be necessary.

**Source Water Assessment Summary**

The NJDEP has completed and issued the Source Water Assessment Report and Summary for our water system (see summary table below). The entire report is available at <http://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			Inorganic			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
Wells - 4			4			4			4			4			4			4			4			4

The ratings above reflect the potential for contamination of source water, not the existence of contamination. The H (high), M (medium), and L (low) ratings are based on criteria which states that potential for contamination presence at or above 50% of the Drinking Water Standard or MCL is (H), between 10 and 50% of the standard (M) and less than 10% of the standard (L). If you have questions regarding this report, please contact the NJDEP Bureau of Safe Drinking Water.

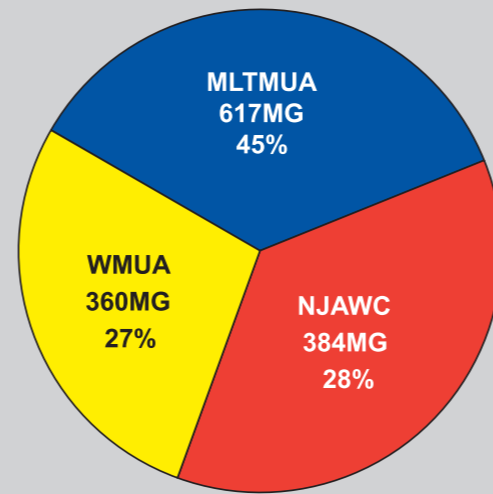
Mount Laurel MUA (MLTMUA) Table of Detected Contaminants					
PWS ID # 0324001					
Contaminant	MCL	MCLG	Highest Level	Range	Major Sources in Drinking Water
<b>Inorganic Contaminants</b>					
Barium (ppm)	2	2	0.085	N/A	Erosion of natural deposits.
Copper (ppm)*	AL=1.3	1.3	90th % = 0.582	0 exceedances of AL	Corrosion of household plumbing systems; Erosion of natural deposits.
Fluoride (ppm)	4	4	0.432	N/A	Erosion of natural deposits; Water additive which promotes strong teeth
Lead (ppb)*	AL=15	0	90th % = <3	1 exceedance of AL	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate [as Nitrogen] (ppm)	10	10	0.187	N/A	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
<b>Disinfectants</b>					
Chlorine (ppm)	MRDL = 4	MRDLG = 4	0.49 Average	0.33-0.61	Water additive used to control microbes
<b>Disinfection Byproducts</b>					
HAA5's [Haloacetic Acids] (ppb)	60	N/A	6 Average	ND-8.91	By-product of drinking water disinfection.
TTHM's [Total Trihalomethanes] (ppb)	80	N/A	20 Average	2.23-48.50	By-product of drinking water disinfection.
<b>Microbiological Contaminants</b>					
Total Coliform Bacteria	Presence of coliform bacteria in < 5% of monthly samples	0	1.82%	N/A	Naturally present in the environment
<b>Secondary Contaminants (RUL) Recommended Upper Limit</b>					
Sodium (ppm)	50	N/A	21.1	N/A	Naturally present in the environment

N/A: Not Applicable ND: Not Detected  
 These data are from the most recent monitoring done in compliance with regulations. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Willingboro MUA Table of Detected Contaminants					
PWS ID # 0338001					
Contaminant	MCL	MCLG	Highest Level	Range	Major Sources in Drinking Water
<b>Inorganic Contaminants</b>					
Nitrate [as Nitrogen] (ppm)	10	10	<0.5	<0.5	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Regulated Volatile Organic Contaminants</b>					
Methyl tertiary butyl ether (ppb)	70	70	0.77	ND-0.77	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills
1,1 Dichloroethane (ppb)	50	50	0.54	ND-0.54	Discharge from metal degreasing sites and other factories.
HAA5's [Haloacetic Acids] (ppb)	60	60	2	ND-2	By-product of drinking water disinfection.
TTHM's [Total Trihalomethanes] (ppb)	80	N/A	3	ND-3	By-product of drinking water disinfection.
<b>Non-Regulated VOCs</b>					
Bromodichloromethane (ppb)	N/A	N/A	0.79	ND-0.79	By-product of drinking water disinfection.
Chloroform (ppb)	N/A	N/A	0.6	ND-0.6	By-product of drinking water disinfection.
Dibromochloromethane (ppb)	N/A	N/A	0.65	ND-0.65	By-product of drinking water disinfection.
<b>Secondary/IOC Contaminants (RUL) Recommended Upper Limit</b>					
Sodium (ppm)	50	N/A	3.96	3.96	
Chloride (ppm)	250	250	<5.00	<5.00	
Manganese (ppm)	1		<0.01	<0.01	
<b>Radiological Contaminants</b>					
Radium 226 (pCi/L)	5	0	1.87	1.29-1.87	Erosion of natural deposits
Radium 228 (pCi/L)	5	0	2.26	1.3-2.26	Erosion of natural deposits
Gross Alpha (pCi/L)	15	0	12.11	11.66-12.11	Erosion of natural deposits
Uranium (URM) (ppb)	30	0	<0.001	<0.001	Erosion of natural deposits
Uranium (4006) (pCi/L)	30	0	0.47	0.12-0.47	Erosion of natural deposits
<b>Lead/Copper Analysis (Distribution Tap Samplings)</b>					
Lead (ppb)	AL=15	0	90th % = <0.002	0 exceedances of AL	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	AL=1.3	1.3	90th % = 0.361	0 exceedances of AL	Corrosion of household plumbing systems; Erosion of natural deposits

These data are from the most recent monitoring done in compliance with regulations.

### Quantity Of Water Delivered To Our System In 2009 By Source



### 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 adults, on a body weight basis, because they may drink a greater amount of water per pound of body weight than 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.

**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 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 MLTMUA 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 drinking 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 or at <http://www.epa.gov/safewater/lead>.

We fluoridate our water. Consult your pediatrician or dentist to determine if fluoride supplements are recommended.

The tables included in this report list the detected constituents. Their presence doesn't necessarily indicate that water poses a health risk.

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 for 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 (800-426-4791).

NJ American Water Company (NJAWC) Table of Detected Contaminants					
PWS ID # 0327001					
Contaminant	MCL	MCLG	Highest Level	Range	Major Sources in Drinking Water
<b>Inorganic Contaminants</b>					
Barium (ppm)	2	2	0.016	0.016	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	ND	ND	Erosion of natural deposits; water additive that promotes strong teeth
Nickel (ppb)	100	100	1.4	1.4	Erosion of natural deposits
Nitrate [as Nitrogen] (ppm)	10	10	1.19	1.19	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.
<b>Treatment Byproducts</b>					
Bromate (ppb)	0.01	N/A	6	ND to 6	By-product of drinking water ozonation
<b>Turbidity</b>					
Turbidity (ntu) *	TT = 1 NTU	0	0.07	0.05-0.15	Soil Runoff
Turbidity (%)	TT = % of samples <0.3 NTU	N/A	100%	N/A	Soil Runoff
<b>Treatment Byproducts Precursor Removal</b>					
Total Organic Carbon (%)	TT≥35%-39% Removal	N/A	28% **	28% to 70%	Naturally present in the environment
<b>Radiologicals</b>					
Alpha Emitters (pCi/L)	15	N/A	11 ***	ND to 11.2	Erosion of Natural Deposits
Combined Radium (226/228) (pCi/L)	5	N/A	4 ***	ND to 4.6	Erosion of Natural Deposits
Uranium (ppb)	30	N/A	9 ***	ND to 14	Erosion of Natural Deposits

N/A: Not Applicable  
 \*100 % of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. It is used as an indication of the performance of the surface water treatment in Delran. We monitor turbidity because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.  
 \*\* Data represents the lowest removal of Total Organic Carbon. Compliance is based on running annual average. TOC has no health effects, but provides a medium for the formation of disinfection by-products including trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer. THMs and HAAs did not exceed the MCLs for this system.  
 \*\*\* This level represents an average of quarterly data. Compliance is based on a running annual average.

### Definition of Terms

**MCL (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.

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

**MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

**ppm:** Parts per Million (ie: 1 cent in \$10,000)

**ntu:** Nephelometric Turbidity Units

**ppb:** Parts per Billion (ie: 1 cent in \$10,000,000)

**ND:** Not Detected

**N/A:** Not Applicable