2016 Consumer Confidence Report



We at Mount Laurel MUA (MLTMUA) are pleased to take this opportunity to share our water guality results for 2016. Our water professionals are focused on providing the highest guality water, which is reflected in our results. In 2016, we performed over 17,000 analyses on the water we produce; the results in this report confirm that your tap water not only meets federal and state standards for drinking water, it surpasses them.

We continue to make the necessary investments to maintain our infrastructure through our Capital Improvement Plan, from well rehabilitation to water main replacement; in 2016, we spent nearly \$1.5 million on drinking water projects. Our current 10 year drinking water system renewal and replacement plan is estimated at over \$23 million, with another \$44 million of investment for projects in our wastewater system.

All of our operational expenses and facility investments are funded entirely by the payments from our customers. Through the continued efforts of our diligent staff we are still able to provide water to you for less than a penny a gallon. Please review the information provided here and feel free to contact us if you have any guestions or concerns.

How Is Your Water Quality Protected?

The Safe Drinking Water Act applies to public water supply systems such as ours, and is used 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 our Water Quality Monitoring Program far exceeds required monitoring intervals. We feel this higher level of quality control aids us in delivering the finest possible water.

Currently, the MLTMUA has a sampling waiver for synthetic organic contaminants and asbestos. Waivers are issued by the NJDEP following a thorough review of past water guality results and vulnerability studies for specific contaminants due to geographic location. In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) 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.

More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline (800-426-4791)

Mount Laurel Township

Municipal Utilities Authority

Mount Laurel Township MUA Board Members & Staff

Chairman - Christopher Smith Vice Chairman - John Francescone Secretary - Cheryl Capri Member - Elwood Knight Member - Geraldine Nardello Executive Director - Pamela J. Carolan MLTMUA Board Meetings are held at 7:00 PM the third Thursday of every month at the MLTMUA's facility located at 41 Elbo Lane

> If you have any questions about the CCR or your drinking water call 856-234-0062. Your call will be returned by a member of our water quality team. Chuck Bernheimer—Operations Director Bill Jack - Water Supervisor Craig Levai - Water Supervisor

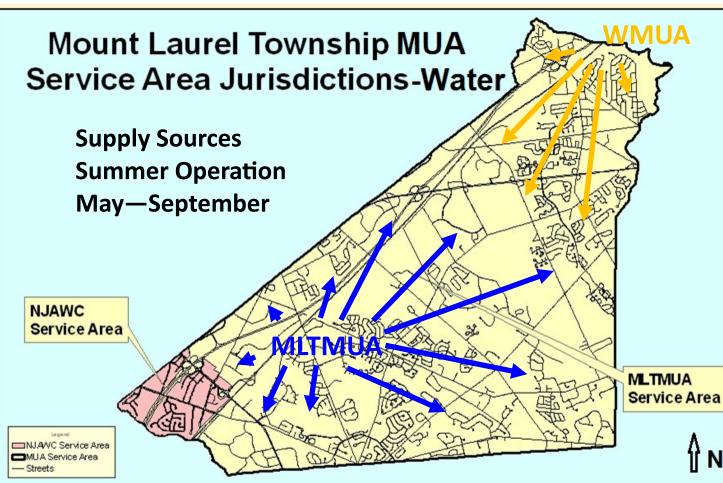
Where Does Your Water Come From?

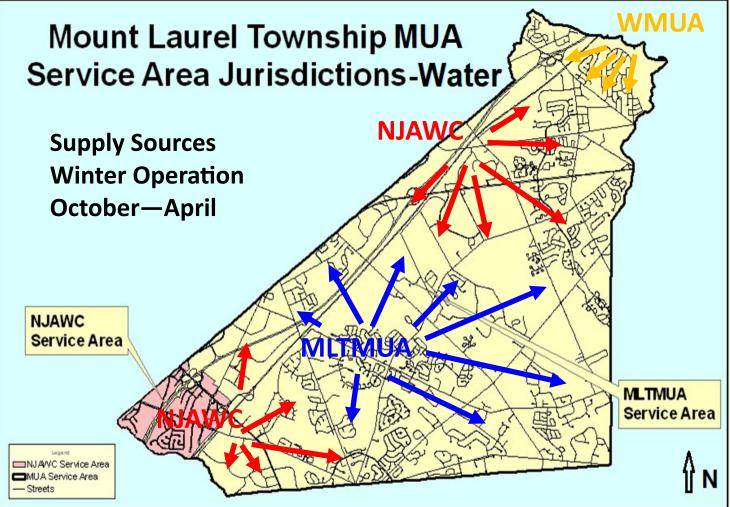
Every day we deliver an average of 4 million gallons (MG) of water to the community of Mount Laurel, with summer use reaching as high as 10 million gallons in one day. We convey our thanks to customers following our Conservation Guidelines as our peak day in 2016 was 7.46 MG, Water is provided from our Elbo Lane Water Treatment Facility, Aguifer Storage & Recovery Facility (ASR) and by purchasing water from the Willingboro MUA (WMUA) and New Jersey American Water Company (NJAWC). We manage these sources to meet our customers' water needs while conforming to all regulatory and contractual requirements.

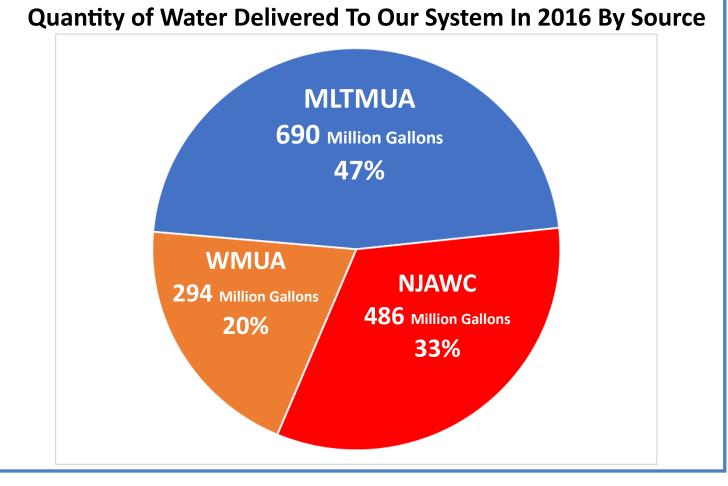
The volume of water we are permitted to pump during any given minute, month or year is strictly regulated by the New Jersey Department of Environmental Protection (NJDEP). In 1995, the NJDEP severely and permanently reduced the permitted annual pumping capacity of our wells to a quantity far below what is needed to service Mount Laurel. Consequently we must augment our well water supply with other sources. In 2016, those sources were the WMUA and the NJAWC; however the MLTMUA continues to pursue alternate sources of water on behalf of our customers.

As mentioned above, your drinking water comes from a blend of sources (see Maps Right & Below). Due to the number of 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.

MLTMUA pumps water from three deep (600-700') wells within the lower Potomac-Raritan-Magothy (PRM) aquifer. This water is treated at our water treatment facility on Elbo Lane using a mixed media filter system with pH adjustment, chlorine disinfection and fluoridation. In 2004 a fourth MLTMUA well was converted from a supply source to an underground storage source using aguifer storage and recovery (ASR) technology. Since water entering the ASR is already treated prior to storage, it does not require full retreatment when recovered, only pH adjustment, re-chlorination and fluoridation; however if necessary, we have the ability to send the recovered water through the Elbo Lane Plant. WMUA obtains all of its water from the PRM aguifer and operates several water treatment facilities. NJAWC supplies water from three sources: Surface water from the Delaware River Delran Plant (majority of our purchase from NJAWC), and ground water from the PRM and Mount Laurel-Wenonah aquifers. All water is distributed to our customers via MLTMUA's 200+ mile underground piping network.







Explanation of Expected Contaminants

The sources of drinking water (both tap 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.

Table of Detected Contaminants

Mount Laurel MUA (MLTMUA) PWS ID# 0324001										
Regulated Substances	5									
Contaminant	MCLG	MCL	Highest Level	Range	Typical Source					
Inorganics										
Barium (ppm)*	2	2	0.089	0.059-0.089	Erosion of natural deposits.					
Fluoride (ppm)*	4	4	0.798	ND-0.798	Erosion of natural deposits; Water additive which promotes strong teeth					
Arsenic (ppb)*	0	5	0.23	0.2-0.23	Erosion of natural deposits; Runoff from orchards					
Antimony (ppb)*	6	6	0.06	ND-0.06	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder					
Mercury (ppb)*	2	2	0.059	0.043-0.059	Erosion of natural deposits; Discharge from refiner- ies and factories; Runoff from landfills; Runoff from cropland					
Selenium (ppb)*	50	50	0.85	0.66-0.85	Discharge from petroleum and metal refineries; Ero- sion of natural deposits					
Lead & Copper										
Lead (ppb)*	0	AL = 15	90th % = 0.5	0 exceedances of AL	Corrosion of household plumbing systems; Erosion of natural deposits.					
Copper (ppm) *	1.3	AL = 1.3	90th % = 0.0552	0 exceedances of AL	Corrosion of household plumbing systems; Erosion of natural deposits.					
Disinfectants			·							
Chlorine (ppm)	MRDLG = 4	MRDL = 4	0.73 Average	0.53 - 1.00	Water additive used to control microbes					
Disinfection Byproduc	ts									
Haloacetic Acids [HAA5]- Stage 2 (ppb)	N/A	60	5 Average	ND - 9.53	By-product of drinking water disinfection.					
Total Trihalomethanes [TTHM]- Stage 2 (ppb)	N/A	80	18 Average	5.0 - 33.0	By-product of drinking water disinfection.					
Radiological Contamir	nants			l						
Radium 228 (pCi/L)*	5	0	1.5	ND - 1.5	Erosion of natural deposits					
Secondary Contamina	nts (RUL)	Recomme	ended Upp	per Limit						
Sodium (ppm) *	N/A	50	29.1	27.3 - 29.1	Naturally present in the environment					
Microbial Contaminan	ts									
Total Coliform Bacteria	Presence of coliform bacteria in <u>< 5% of month-</u> ly samples	0	2.33%	NA	Naturally present in the environment					
N/A: Not Applicable										

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 concentration of these contaminants do not change frequently.

Mount Laurel MUA (MLTMUA)

Unregulated Contaminant Monitoring (UCMR3) 2014										
Contaminant	MCLG	MCL	Highest Level	Range	Major Source in Drinking Water					
Chlorate (ppb)	N/A	N/A	730	60-730	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine diox- ide					
Strontium (ppb)	N/A	N/A	930	173-930	Naturally-occurring element; historically, commercia use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emis- sions					
Vanadium (ppb)	N/A	N/A	0.69	ND-0.69	Naturally-occurring elemental metal; used as vana- dium pentoxide which is a chemical intermediate and a catalyst					
1,1-dichloroethane (ppb)	50	50	0.072	ND-0.072	Halogenated alkane; used as a solvent					
Hexavalent Chromium (ppb)	N/A	N/A	0.79	ND-0.79	Naturally -occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tan- ning, and wood preservation					
Chromium (ppb)	N/A	100	0.82	ND-0.82	Naturally -occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tan- ning, and wood preservation					
Molybdenum (ppb)	N/A	N/A	1.5	ND-1.5	Naturally-occurring element found in ores and pre- sent in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemica reagent					

N/A: Not Applicable

¹ MRL—Minimum Reporting Limit

* NJ MCL (Maximum Contaminant Level) A280

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.

	Pat	hoge	ns	Nu	ıtrien	ts	Pe	sticid	es	0	olatil rgani npou	С	Inc	organ	ic		adio- uclide		R	ladon		Вур	nfecti produ curso	ct
Sources	н	м	L	н	м	L	н	м	L	н	м	L	н	м	L	н	м	L	н	м	L	н	м	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 contaminations presence at of 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 guestions regarding this report, please contact the NJDEP Bureau of Safe Drinking Water.

PWS ID# 0324001

Tables of Detected Contaminants

	Willingboro MUA (WMUA) PWS ID# 0338001										
Regulated Substand	ces										
Contaminant	MCLG	MCL	Highest Level	Range	Typical Source						
Inorganics	-		•								
Nitrate (ppm)	10	10	3.68	ND - 3.68	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits						
Arsenic (ppb)*	0	5	0.82	0.19-0.82	Erosion of natural deposits, runoff from orchards						
Barium (ppm)*	2	2	0.0963	0.0673-0.0963	Erosion of natural deposits, discharge from drilling wastes						
Baryllium (ppb)*	4	4	1.1	ND-1.1	Discharge from metal refineries and coal burning factories; discharges from electrical, aerospace and defense industries						
Chromium (ppb)*	100	100	2.5	ND –2.5	Discharge form steel and pulp mills; erosion of natu- ral deposits						
Fluoride (ppm)*	4	4	1.03	0.658-1.03	Erosion of natural deposits						
Nickel (ppm)*	N/A	N/A	0.0133	0.00043- 0.0133	Erosion of natural deposits						
Selenium (ppb)*	50	50	3.4	0.7-3.4	Discharge from petrol/metal refineries; erosion of natural deposits						
Thallium (ppb)*	0.5	2	0.04	ND-0.04	Leaching from ore-processing sites; discharge from electronics, glass and drug factories						
Lead & Copper											
Lead (ppb)*	0	AL = 15	90th%=2.0	0.06-13.3	Corrosion of household plumbing systems; Erosion of natural deposits.						
Copper (ppm)*	1.3	AL = 1.3	90th%=0.34	0.03-0.65	Corrosion of household plumbing systems; Erosion of natural deposits.						
Regulated VOC				1							
Tetrachloroethene (ppb)	0	1	0.53	0.1 - 0.53	Discharge from factories and dry cleaners						
Xylenes, Total (ppb)	1000	1000	1.44	ND-1.44	Discharge from petroleum factories. Discharge from chemical factories.						
Disinfection											
Chlorine (ppm)	MRDLG = 4	MRDL=4	0.83 Average	0.3 - 1.80	Water Additive used to control microbes						
Disinfection Bypro	ducts										
Haloacetic Acids [HAA5] (ppb)	N/A	60	3.30 Average	ND - 3.17	By-product of drinking water disinfection.						
Total Trihalomethanes [TTHM] (ppb)	N/A	80	9.1 Average	1.9-14.9	By-product of drinking water disinfection.						
Secondary Contam	inants (RU	L) Recom	mended L	Jpper Limit							
Iron (ppm) ¹	N/A	0.3	0.38	.03 - 0.38	Naturally present in the environment						

N/A: Not Applicable

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 concentration of these contaminants do not change frequently.

¹ One of the Iron levels detected during the compliance period exceeded the Recommended Upper Limit (RUL) of 0.3 PPM. Iron is an essential nutrient but the RUL is based on aesthetic factors such as unpleasant taste, staining of laundry and other fixtures

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Contaminant	MCLG	MCL	Highest Level	Range	Typical Source					
Microbiological Contaminants										
Total Coliform Bacteria	N/A	0	5.00%	2.5%	Naturally Present in the environment					
Radiologicals										
Gross Alpha (pCi/L)*	0	15	9.73	9.73	Erosion of natural deposits					
Combined Radium (226/228)* (pCi/L)	0	5	2.3	2.3	Erosion of natural deposits					
N/A: Not Applicable										

* 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 concentration of these contaminants do not change frequently.

Unregulated Conf	aminant		ring (UCN	MR3)	
Contaminant	MCLG	MCL	Highest Level	Range	Typical Source
Volatile Organic Con	npound		, , ,		
1,1 dichloroethane (ppb)*	50	50	0.57	ND - 0.57	Halogenated alkane; used as a solvent
Sythentic Organic C	ompound				
1,4-dioxene (ppb)*	N/A	N/A	0.24	ND-0.24	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and procession of paper, cotton, textile products, automotive coolant, cosmet- ics and shampoos.
Metals	1		, , ,		
Vanadium (ppb) *	N/A	N/A	6.4	ND-6.4	Naturally-occurring elemental metal; used as vanadi- um pentoxide which is a chemical intermediate and a
Cobalt (ppb)*	N/A	N/A	4.4	ND-4.4	Naturally-occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; cobaltous chloride was formerly used in medicine and as a germicide.
Strontium (ppb)*	N/A	N/A	560	150-560	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Chromium (ppb)*	N/A	100	0.89	ND-0.89	Naturally-occurring element, used in making steel and other alloys. The amount measured when ana- lyzing for "total chromium" is the sum of the sum of chromium in all of its valance states.
Chromium-6 (measure	ed as solub	le chromate	ion)		
Chromium—6 (ppb)*	N/A	N/A	0.77	ND-0.77	Naturally-occurring element; used in making steel and other alloys. Used for chrome plating, dyes and
Oxyhalide Anion			· · · · · ·		
Chlorate (ppb)*	N/A	N/A	5800	150-5800	Agricultural defoliant or desiccant; disinfection by- product; and used in the production of chlorine

Willingboro MUA (WMUA)

PWS ID# 0338001

Definition of Terms available at the end of this report.

Tables of Detected Contaminants

		,	PWS ID#		mpany (NJAWC)
Regulated Substanc	es				
Contaminant	MCLG	MCL	Highest Level	Range	Typical Source
Inorganics					
Nitrate (ppb)	10	10	1	1	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
Turbidity					
	NA	TT = 1 NTU	0.16	0.04 - 0.16	Soil runoff
Turbidity ² (NTU)	NA	TT = % of samples <0.3 NTU	100%	NA	Soil runoff
Treatment Byproduc	ts Precur	sor Remo	val		
Total Organic Carbon (TOC) (%)	NA	TT <u>></u> 35% <i>Removal</i>	44% ³	44% to 63%	Naturally present in the environment.
Disenfectants	_				
Chlorine (ppm)	NA	TT= >0.20	0.36 ¹	0.36 - 1.02	Water additive used to control microbes
	MRDLG=4	MRDL = 4	1.02 ¹		
Unregulated Cont	aminant	ts Monito	oring (UC	:MR3)	
Contaminant	MCLG	MCL	Highest Locational Average	Range	Typical Source
Chromium (VI) (ppb)	NA	NA	1.0	0.65-1.22	Naturally-occurring element; used in making steel and other alloys; chromium -3 or -6 forms are used for chrome plating, dyes and pigments, leather tan- ning, and wood preservation
Molybdenum (ppb)	NA	NA	1.4	1.2 - 1.7	Naturally-occurring element found in ores and pre- sent in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical rea- gent
Strontium (ppb)	NA	NA	79	74.3-90.2	Naturally-occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emission

² 100% of the turbidity readings were below the treatment technique requirement of 0.3 NTU. Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

³ Data represents the lowest removal of Total Organic Carbon (TOC)

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.

Arsenic: Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

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 MLT-MUA 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.

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.

Selenium: Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation. 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).

Definition of Terms

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

ntu: Nephelometric Turbidity Units

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.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

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 and mining or farming *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 station, 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.



ND: Not Detected N/A: Not Applicable

