

**CITY OF GARFIELD
WATER SYSTEM
CONSUMER CONFIDENCE REPORT - 2006**

(Issued: Summer 2007)

This contains important information about the water in your community. Translate or speak to someone who understands it well.

El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.

La relazione contiene importanti informazioni su la qualita del acqua de la Comunita. Tradurlo o parfame con un amico che lo comprenda.

Sprawozdanie zawiera wazne informacje na temat jakosci wody w Twojej miejscowosci. Popros kogos o przetiumaczenie go lub porozmawiaj z osoba ktora je dobrze rozumie.

Dear Consumer:

During 2006, the City of Garfield Water Department conducted tests on water samples for over 80 contaminants that might be found in the water. These tests included items ranging from taste and odor, to bacteriological and chemical constituents. The United States Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (NJDEP) sets health and safety standards for water quality.

This annual Consumer Confidence Report, required by the Safe Drinking Water Act (SDWA), provides additional information on our sources of supply and the quality of the water that we deliver. For more information on this report or about the next opportunity for public participation in decisions concerning drinking water, please contact:

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The City of Garfield does not have regularly scheduled meetings regarding the Garfield Water Department. All meetings of the Mayor and Council are advertised in advance in the legal section of the local newspaper. The Garfield Water Department will notify consumers as required by the NJDEP if water quality fails to meet the standards.

General Information

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 bacterial, which may come from wastewater 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, and residential uses.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, industrial or domestic wastewater discharges, oil and gas projection, 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 stations, urban stormwater runoff, agriculture and septic systems.
- Radioactive contaminants, which can be naturally occurring, or can 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. 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. However, the presence of a contaminant does not necessarily indicate that the water poses a health risk.

Sources of Supply

The NJDEP permits the Garfield Water Department to operate eighteen (18) production wells, of which eleven (11) are located at the Garfield Waterworks Well Field. The wells are sunk deep below the ground - approximately 250 feet - into an underground source of water. The Garfield Waterworks Well Field is located at 219 Boulevard in Elmwood Park, Bergen County, New Jersey.

The Garfield Water Department supplements its well water supply with treated water purchased in bulk from the Passaic Valley Water Commission (PVWC). Based upon 2006 data, approximately 51% of the city’s water demand was supplied by PVWC. The primary source of water for PVWC is the Pompton and Passaic Rivers, as well as, water supplied by the North Jersey District Water Supply Commission (NJDWSC).

Garfield's well water and water purchased from PVWC are blended at the Belmont Hill Tanks. The north end of the City of Garfield receives mostly well water, the south end receives mostly PVWC water, and the area in between receives mostly blended water.

Source Water Assessment Program (SWAP)

In 2004, the NJDEP completed and issued a 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.

The NJDEP source water assessment performed on our well sources determined the following:

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-nuclides			Radon			Disinfection Byproducts 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 ¹		12	6	11	7			11	7	18			18			9	9		18				18		

DEP utilized the following ratings: high (H), medium (M), or low (L) for each contaminant category.

¹ Eighteen (18) wells were reviewed for each contaminant category.

The 2004 source water assessment performed on Passaic Valley Water Commission (PVWC), PWSID 1605002, and North Jersey District Water Supply Commission (NJDWSC), PWSID 1613001, sources of water determined the following:

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radio-nuclides			Radon			Disinfection Byproducts 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
PVWC SWI -4	4			4				1	3		4		4					4			4	4		
NJDWSC SWI -5	5			5				2	3		5		5					5			5	5		

where SWI represents the number of surface water intakes.

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: 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.

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: 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.

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 the 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.

If you have any questions regarding the Source Water Assessment Report or summary, please contact the Bureau of Safe Drinking water at swap@dep.state.nj.us or 609-292-5550.

Water System Capital Improvements

The City of Garfield is dedicated to supplying its residents with a reliable water system with the highest quality water. The City of Garfield is currently utilizing a low interest loan to construct a new booster pumping station and reservoir at the Garfield Water Works facility in Elmwood Park and replace three (3) existing water storage tanks with one (1) new water storage tank at the Belmont Hill site.

During 2006, the City of Garfield has replaced a number of old water service lines from the main to the curb within various city streets. A new twelve (12") inch water main was installed on Palisade Avenue from the intersection of Midland Avenue and River Drive to Van Winkle Avenue.

Treatment

The wells and the area around the wells are inspected regularly to ensure that no above ground pollution sources are present in these areas. Water from all wells is treated by chlorination for disinfection and aeration by an air stripper to remove volatile organic compounds. Water treatment at PVWC includes pretreatment, sedimentation, filtration and disinfection.

The City of Garfield and PVWC Water Quality Tables found within this report list all the drinking water contaminants that were detected during calendar year 2006. The presence of these 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 January 1

through December 31, 2006. The NJDEP requires the City of Garfield to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Public Notice

Routine monitoring for the presence of drinking water contaminants indicated the Garfield Water System exceeded the standard or maximum contaminant level (MCL) for trichloroethylene for July 19, 2006 testing results. The standard for trichloroethylene is 1 ppb. Trichloroethylene was found at 9.2 ppb. The Garfield Water Department had provided notice to all customers. The City of Garfield has remedied the problem by repairing the defective blower system in the packed tower. Previous and subsequent samples indicated levels of trichloroethylene below 0.09 ppb.

This is not an immediate health risk. If it had been, you would have been notified immediately. However, some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

During Monthly Coliform Testing for October 2006, one (1) out of thirty-nine (39) samples resulted in positive levels of total coliform bacteria. Repeat samples were found to be negative. No more than one (1) of all monthly samples may test positive for total coliforms. Coliforms are bacteria which are naturally present in the environment. Coliforms are not a health threat in themselves, but are used to indicate whether other potentially harmful bacteria may be present. The City of Garfield Water Department is required to notify customers within one (1) year of the positive coliform sample result and this information shall serve as the Public Notice.

CITY OF GARFIELD WATER QUALITY TABLE

PRIMARY STANDARDS
(Directly related to the safety of drinking water)

<u>CONTAMINANT</u>	<u>MCLG</u>	<u>MCL</u>	<u>Garfield Result</u>	<u>Range of Results</u>	<u>Meets Std.</u>	<u>Likely Source of Contaminant</u>
<u>Inorganic Compounds</u>						
Lead ¹ (ppb)	-0-	AL=15 ²	6 ³	--	Yes	Household Plumbing.
Copper ¹ (ppm)	AL=1.3	AL=1.3 ²	0.2 ³	--	Yes	Household Plumbing.
Nitrates (ppm)	10	10	3.45	ND-3.45	Yes	Natural Mineral.
Iron ⁴ (ppb)	-0-	0.3	0.05	--	Yes	
Manganese ⁴ (ppb)	-0-	0.05	0.01	--	Yes	
Arsenic	-0-	0.01	0.00258	--	Yes	Erosion of natural deposits.
Barium	2	2	0.15	--	Yes	Erosion of natural deposits.
<u>Radionuclides</u> ⁵						
(Adjusted) Gross Alpha (pCi/l)	-0-	15	0.65 ⁶	0.06-1.88 ⁶	Yes	Erosion of natural deposits.
Combined Radium-226/-228 (pCi/l)	-0-	5	1.96 ⁶	0.36-3.84 ⁶	Yes	Erosion of natural deposits.
<u>Microbiologicals</u>						
Total Coliforms ⁷ (# of detects per month)	-0-	1	1	0 - 1	Yes	Naturally present in the environment.
<u>Organic Compounds</u>						
Total Trihalomethanes ⁸ (TTHM) (ppb)	NS	80	41 ⁹	0.24-47.8	Yes	By-product of drinking water disinfection.

Footnotes

¹ The Garfield Water Department collected 30 water samples during 2006 from residents randomly selected in the distribution system. These samples were analyzed to determine the concentration of lead and copper. This data is used to determine if the water is corrosive, and it was found that it is not corrosive.

² This is the action level for lead and copper.

³ This is the 90th percentile level.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of material used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flushing your tap for 30 seconds to 2 minutes before using tap water can reduce the levels of lead. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

⁴ Iron & Manganese are not primary contaminants.

⁵ Community public water systems must test for radionuclides every four (4) years.

⁶ 2006 sample results.

⁷ 438 samples were collected from the distribution system during 2006. One (1) sample, October, resulted in positive levels of total coliform bacteria. No more than 1 sample of all monthly samples may test positive for total coliforms.

Previous and subsequent samples collected at the original and nearby sites have been negative, and the water was and is safe to drink.

⁸ Total Trihalomethanes (TTHM) compliance is based on running annual average.

⁹ Highest running average. For 2001, the MCL for TTHM was reduced from 100 to 80. The increase in concentration of these naturally occurring organics is related to the extended drought conditions in 2002. 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 systems, and may have an increased risk of getting cancer.

CITY OF GARFIELD WATER QUALITY TABLE (continued)

PRIMARY STANDARDS
(Directly related to the safety of drinking water)

<u>CONTAMINANT</u>	<u>MCLG</u>	<u>MCL</u>	<u>Garfield Result</u>	<u>Range of Results</u>	<u>Meets Std.</u>	<u>Likely Source of Contaminant</u>
<u>Inorganic Compounds</u>						
Total Haloacetic Acids Five ¹ (HAA5) (ppb)	NS	60	19 ²	0.5–21.47	Yes	By-product of drinking water disinfection.
<u>Volatile Organic Compounds</u>						
1,1-Dichloroethylene (ppb)	NS	2	0.27	ND-0.27	Yes	Discharge from industrial chemical factories.
1,2-Dichloroethene (ppb)	NS	2	0.9	ND-0.9	Yes	Discharge from industrial chemical factories.
1,1,1-Trichloroethene (ppb) ¹	NS	30	0.49	ND-0.49	Yes	Discharge from metal degreasing sites and other factories.
cis-1,2-Dichloroethene (ppb)	NS	70	12.44	ND-12.44	Yes	Discharge from industrial chemical factories.
Methyl Tertiary Butyl Ether (MTBE) (ppb)	NS	70	2.36	ND-2.36	Yes	Leaking underground gasoline & fuel oil tanks, spills and marine engine emissions.
Tetrachloroethylene ³ (ppb)	NS	1	0.67 ²	ND-3.84	Yes	Discharge from factories and dry cleaners.
Trichloroethylene ⁴ (ppb)	NS	1	9.2	ND-9.2	No	Discharge from metal degreasing sites and other factories.
<u>Unregulated Contaminant Monitoring</u> ⁵						
Acetone	NS	NS	2.67 ⁶	ND-16.31	Yes	Naturally present in the environment, fuel additive and discharge from industrial chemical factories.
Chloroform	NS	NS	0.57 ⁶	ND-1.07	Yes	By-product of drinking water disinfection.

Footnotes

- ¹ Total Haloacetic Acids Five (HAA5) compliance is based on running annual average.
- ² Highest running average.
- ³ Tetrachloroethylene compliance is based on running annual average.
- ⁴ Seven (7) monthly samples of treated water were collected during 2006 and tested for 95 volatile organic compounds (VOCs). Analytical results for the third quarter sample detected levels of Trichloroethylene above the MCL limit. The previous quarterly and subsequent monthly samples detected all levels of VOCs below the MCL limit.

Some people who drink water containing Trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

The Garfield Water System has been exempted from the requirement to sample for Synthetic Organic Compounds.
- ⁵ Unregulated contaminants monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.
- ⁶ 2006 average sample results.

Coliforms

Coliforms are bacteria, which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms may be found in more samples than allowed and this serves as a warning of potential problems.

Health/Educational Information

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 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 infections by cryptosporidium and other microbial contaminants are available from the EPA Safe Drinking Water Hotline at 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.

CITY OF GARFIELD
SECONDARY STANDARDS¹
 (Related to the aesthetic quality of drinking water)

<u>Substance Name</u>	<u>Recommended Upper Limit</u>	<u>Garfield Result</u>	<u>Meets Std.</u>
ABS/LAS	0.5	0.1	Yes
Alkalinity (ppm)	NS	190	NA
Aluminum (ppm)	0.2	0.1	Yes
Chloride (ppm)	250	93	Yes
Color (ppm)	10	2	Yes
Copper (ppm)	1.0	0.01	Yes
Corrosivity ²	+/-1.0	+0.72	Yes
Flouride (ppm)	1.2	0.07	Yes
Hardness (ppm) ³	50-250	312	No
Iron (ppm)	0.3	0.05	Yes
Manganese (ppm)	0.05	0.01	Yes
Odor (TON)	3	1	Yes
pH (units)	6.5-8.5	8.2	Yes
Silver (ppm)	0.1	≠0.03	Yes
Sodium (ppm)	50	25	Yes
Sulfate (ppm)	250	53	Yes
Total Dissolved Solids (ppm)	500	469	Yes
Langelier's Index	0.5	0.39	Yes
Zinc (ppm)	5.0	0.03	Yes

Footnotes

- ¹ Testing for Secondary Standards was conducted in 2005. The City of Garfield is required to routinely sample for Secondary Standards every three (3) years. Although not regulated, these items act as an indicator of the aesthetic quality of the available drinking water.
- ² See also section on inorganics and lead and copper testing in Primary Standards above.
- ³ The range of 50-250 mg/l is the recommended range for hardness. Hardness will cause scaling of pipe and is not a health concern.

PASSAIC VALLEY WATER COMMISSION - 2006 WATER QUALITY RESULTS

The following Table presents data on water produced by the Passaic Valley Water Commission and purchased by the City of Garfield. The following results represent compliance samples collected and reported to NJDEP in 2006. Some of the data, though representative of the water quality, is more than one year old.

PVWC incurred a monitoring violation in February 2006 for missing a monthly bromate regulatory compliance monitoring sample. Public notification for this violation was completed by December 31, 2006.

PRIMARY STANDARDS (Directly related to the safety of drinking water)

<u>CONTAMINANT</u>	<u>MCLG</u>	<u>MCL</u>	<u>Results</u>	<u>Likely Source of Contaminant</u>
Turbidity ¹ (NTU)	NA	1 NTU	0.3	Soil run-off.
		% of samples < 0.3 NTU:	100.0%	
Total Organic Carbon (%)	NA	TT (% removal)	55 % (25-50% required)	Naturally present in the environment.
<u>Inorganic Contaminants</u>				
Asbestos (MFL)	7	7	1.26 ²	Decay of asbestos cement water mains and erosion of natural deposits.
Nitrate (ppm)	10	10	1.11 ³	Runoff from fertilizer use.
<u>Organic Contaminants</u>				
Methyl tertiary butyl ether (MTBE) (ppb)	NA	70	0.53	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills.
<u>Detected Secondary Analytes</u>				
Sodium (ppm) (unregulated)	NA	50	88.6 ⁴	Natural mineral, road salt.

Footnotes

¹ Turbidity standard of 0.5 NTU is mandated for filtered surface water. Turbidity is measured at the treatment plant.

² Sample result for October 2002.

³ Infants below the age of six months who drink water containing in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

⁴ For healthy individuals, the sodium 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 a concern to individuals on a sodium restricted diet.

MICROBIAL MONITORING OF SOURCE WATER

Cryptosporidium: *Cryptosporidium* is a protozoan cyst sometimes found in raw surface water and is generally removed at the Water Treatment Facility. *Cryptosporidium* has not been detected in PVWC finished water.

The Passaic and Pompton Rivers are the sources of raw water for the PVWC Little Falls Surface Water Treatment Plant.

THE NORTH JERSEY DISTRICT WATER SUPPLY COMMISSION (NJDWSC)

2006 WATER QUALITY RESULTS

The following Table presents data on water produced by the North Jersey District Water Supply Commission (NJDWSC) in 2006. Some of the data, though representative of the water quality, is more than one year old. The table lists all the drinking water analytes that were detected. The presence of these analytes in the water does not necessarily indicate that the water poses a health risk.

PRIMARY STANDARDS

(Directly related to the safety of drinking water)

<u>CONTAMINANT</u>	<u>MCLG</u>	<u>MCL</u>	<u>Results</u>	<u>Range of Results</u>	<u>Meets Std.</u>	<u>Likely Source of Contaminant</u>
Turbidity (NTU)	NS	1	0.25	(Highest Result)	Yes	Soil run-off
% of samples < 0.3 NTU:		100 %				
Total Organic Carbon (%)	NA	TT = (% removal)	42 %	33 to 49 %	Yes	Naturally present in the environment.
<u>Inorganic Compounds</u>						
Asbestos (MFL)	7	7	<0.09 ¹	-	Yes	Decay of asbestos cement water mains and erosion of natural deposits.
Barium (ppm)	2	2	0.011		Yes	Discharge of drilling wastes, discharge from metal refineries and erosion of natural deposits.
Fluoride (ppm)	4	4	0.087		Yes	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.2	ND – 0.2	Yes	Runoff from fertilizer use
<u>Radionuclides</u>						
Gross Alpha (pCi/L)	0	15	0.86 ²	-	Yes	Erosion of natural deposits.
Gross Beta (pCi/L)	0	4	2.3 ²	-	Yes	Erosion of natural deposits.
Radium (pCi/L)	0	5	0.03 ²	-	Yes	Erosion of natural deposits.

Footnotes

¹ Sample result for May 2002.

² 2005 Data.

**THE NORTH JERSEY DISTRICT WATER SUPPLY COMMISSION (NJDWSC)
2006 WATER QUALITY RESULTS**

SECONDARY STANDARDS

(Related to the aesthetic quality of drinking water)

<u>Substance Name</u>	<u>Federal/State</u>	NJDWSC	Meets
		<u>Result</u>	<u>Std.</u>
Alkalinity (ppm)	NS	18.9	NS
Aluminum (ppm)	0.200	0.049	Yes
Chloride (ppm)	250	29.4	Yes
Color (CU)	10	2	Yes
Hardness (ppm)	50-250	50.9	Yes
Iron (ppm)	0.3	0.01	Yes
Manganese (ppm)	0.05	0.002	Yes
pH (units)	6.5-8.5	8.0	Yes
Sodium (ppm)	50	16	Yes
Sulfate (ppm)	250	18.8	Yes
Total Dissolved Solids (ppm)	500	120	Yes
Zinc (ppm)	5	0.0019	Yes

DEFINITIONS

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

Maximum Contaminant Level Goal (MCLG) - 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 (MCL) - 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.

Primary Standards - Federal drinking water regulations for substances that are health-related. Water suppliers must meet all primary drinking water standards.

Secondary Standards - Federal drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as taste, odor, and appearance. Secondary standards are recommendations, not mandates.

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

TERMS AND ABBREVIATIONS

ABS/LAS - Common major components of synthetic detergents. ABS is the abbreviation for sodium alkyl benzene sulfonate which has been largely replaced by linear alkyl sulfonate (LAS).

Color Unit (CU) - Dissolved organic material from decaying vegetation and certain inorganic matter cause color in water. While color itself is not a health risk, its presence is aesthetically objectionable and suggests that the water needs appropriate treatment.

Cryptosporidium - a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. Immuno-compromised individuals should consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Inorganic Compounds - Chemicals associated with minerals and metals.

Langelier's Index - An index reflecting the equilibrium pH of a water with respect to calcium and alkalinity. Used in stabilizing water to control deposition of scale.

Microbiologicals - Microorganisms such as bacteria, viruses, and protozoa, which may be potentially harmful. These organisms may occur naturally or can be introduced into the environment from sewerage treatment plants, septic systems, and agricultural runoff.

ml - Milliliters.

NA - Not Applicable.

ND - Non-Detectable.

NS - No Standard.

Nephelometric Turbidity Unit (NTU) - A measure of the clarity of water.

Organic Compounds - Chemicals associated with carbon or living matter.

Parts per billion (ppb) or micrograms per liter - One part per billion corresponds to a single penny in \$10,000,000.00. Concentration in parts per billion.

Parts per million (ppm) or milligrams per liter (mg/l) - One part per million corresponds to a single penny in \$10,000.00. Concentration in parts per million.

Picocuries per liter (pCi/l) - is a measure of radioactivity in water.

Radionuclides - contaminants giving off ionizing radiation.

TON - Threshold Odor Number.

Total Trihalomethanes (TTHMs) - TTHMs are formed when organic compounds in water react with chlorine (used as a disinfectant). TTHMs may have harmful health effects.

Turbidity - in excess of 5 NTU is just noticeable to the average person. The clarity or amount of suspended material in water.

Variations and Exemptions - State (NJDEP) or EPA permission not to meet an MCL or a treatment technique under certain conditions.