

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

*Este informe contiene informacion muy importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.*

PWS ID# NJ1347001

## Annual Drinking Water Quality Report Borough of Lake Como Water Department

For the Year 2017, Results from the Year 2016

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. We purchase water from New Jersey American Water (NJAW) – Coastal North (Monmouth System). This system's water comes from a blend of sources that may include: groundwater from the Potomac-Raritan-Magothy Aquifer System (PRM) and surface water from the Glendola Reservoir, the Manasquan River / Reservoir, the Shark River and the Swimming River / Reservoir.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued Source Water Assessment Reports and Summaries for this public water system, which is available at [WWW.state.nj.us/dep/swap](http://WWW.state.nj.us/dep/swap) or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. The NJAW Source Water Assessment Report and Summary is included.

We are pleased to report that our drinking water meets all federal and state safety requirements.

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 infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

<b>Borough of Lake Como Test Results</b> PWS ID# NJ1347001						
Contaminant	Violation Y/N	Level Detected	Units of Measurement	MC LG	MCL	Likely Source of Contamination
<b>Disinfection Byproducts:</b>						
TTHM Total Trihalomethanes Test results Yr. 2016	N	Range = 50 - 85 Highest LRAA = 70	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids Test results Yr. 2016	N	Range = 6 - 37 Highest LRAA = 15	ppb	N/A	60	By-product of drinking water disinfection
<b>Regulated Disinfectants</b>		<b>Level Detected</b>		<b>MRDL</b>		<b>MRDLG</b>
Chloramines		Average = 0.05ppm		4.0 ppm		4.0 ppm

HAA5 and TTHM compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

The Borough of Lake Como Water Department and New Jersey American Water routinely monitor for contaminants in your drinking water according to Federal and State laws. The tables show the results of that monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2016. 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, are more than one year old.

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 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.

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.

**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 Borough of Lake Como Water Department and New Jersey American Water are responsible for providing high quality drinking water, but can not 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 second to 2 minutes before using water for drinking and cooking. If you are concerned about lead in your 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>.

## **DEFINITIONS**

In the following table 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.

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

**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.

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

**Total Organic Carbon** - Total Organic Carbon (TOC) has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. The *Treatment Technique* for TOC requires that 35% - 45% of the TOC in the raw water is removed through the treatment processes.

**Turbidity** - Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium microbial growth. Turbidity is measured as an indication of the effectiveness of the filtration process. The *Treatment Technique* for turbidity requires that no individual sample exceeds 1 NTU and 95% of the samples collected during the month must be less than 0.3 NTU.

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

**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.

**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 Residual Disinfectant Level (MRDL)**: 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.

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

**Secondary Contaminant**- Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

**Recommended Upper Limit (RUL)** - Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RUL's are recommendations, not mandates.

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. The NJAWC System received monitoring waivers for asbestos and synthetic organic chemicals.

## **Cryptosporidium**

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100% removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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, infants and small children, and the elderly are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to 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.

**If you have any questions about this report or concerning your drinking water, please call the Lake Como Water Department at 732-681-3393. We want our valued customers to be informed about their drinking water. If you want to learn more, please attend any of our regularly scheduled Township Meetings. The Borough of Lake Como Council meets on the 1<sup>st</sup> and 3<sup>rd</sup> Tuesday of each month at 7:30 pm at the Boro Hall, 1740 Main Street.**

New Jersey American Water – Monmouth System 2016 Test Results						
PWSID # NJ1345001						
Contaminant	Violati on Y/N	Level Detected	Units of Measure ment	MC LG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants:</b>						
Turbidity	N	Range = 0.01 – 0.22 100% < 0.3 NTU	NTU	N/A	TT 95% Of monthly samples < 0.3 NTU	Soil runoff
Total Organ Carbon (TOC)	N	Range = 1.2 – 2.3 Highest removal = 2.2	ppm	N/A	TT % of removal	Soil runoff
<b>Inorganic Contaminants:</b>						
Chromium (Total)	N	Range = ND – 1.4 Highest detect = 1.4	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper Result at 90 <sup>th</sup> Percentile Test results Yr. 2014	N	0.23 No samples exceeded the action level.	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	Range = 0.5 – 0.68 Highest detect = 0.68	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Result at 90 <sup>th</sup> Percentile Test results Yr. 2014	N	3 1 sample out of 50 exceeded the action level.	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	Range = 0.07 – 0.31 Highest detect = 0.31	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Volatile Organic Contaminants / Disinfection Byproducts:</b>						
Carbon Tetrachloride	N	Range = ND – 0.07 Highest detect = 0.07	ppb	0	2	Discharge from chemical plants and other industrial activities
TTHM Total Trihalomethanes	N	Range = 3.4 – 93.4 Highest LRAA = 57.7	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = ND – 54.9 Highest LRAA = 19.9	ppb	N/A	60	By-product of drinking water disinfection
<b>Regulated Disinfectants</b>		<b>Level Detected</b>		<b>MRDL</b>		<b>MRDLG</b>
Chloramines		Range = 0.06 – 2.98		4.0 ppm		4.0 ppm
<b>Secondary Contaminant</b>		<b>Level Detected</b>		<b>Units of Measurement</b>		<b>RUL</b>
Sodium		Range = 29 - 58		ppm		50

HAA5 and TTHM compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four completed quarters of monitoring results.

New Jersey American Water – Monmouth System exceeded the secondary Recommended Upper Limit for Sodium. 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 (RUL) may be of concern to individuals on a sodium restricted diet.

New Jersey American Water – Monmouth System participated in monitoring for unregulated contaminants with the Unregulated Contaminant Monitoring Rule (UCMR). Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Our results are available upon request. For testing conducted in the Monmouth System we found the substances listed.

Unregulated Contaminant	Level Detected	Units of Measurement	NJDEP Guidance Level
Chlorate	Range = ND – 760	ppb	N/A
Hexavalent Chromium	Range = ND – 0.53	ppb	N/A
Strontium	Range = 38 - 509	ppb	N/A
1,4 Dioxane	Range = ND – 0.50	ppb	N/A

#### **Hexavalent Chromium**

Major sources of Hexavalent Chromium (Chromium-6) in drinking water are discharges from steel and pulp mills, and erosion of natural deposits of chromium-3. Hexavalent Chromium is not currently regulated as an individual substance. The NJ American Water voluntarily performed this monitoring based on a recommendation from the USEPA. For more information on Hexavalent Chromium (Chromium-6), please visit the NJ American Water Company web site.

#### **Chlorate**

Agricultural defoliant or desiccant; disinfection byproduct; used in production of chlorine dioxide

#### **Strontium**

Naturally occurring element; commercial use of strontium has been in the faceplate of glass cathode-ray tube televisions to block x-ray emissions.

#### **1,4-Dioxane**

Used as a solvent in manufacturing and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.

## NJ American Water – Monmouth System - PWSID # NJ1345001

NJ American Water Company – Coastal North System is a public community water system consisting of 30 wells, 5 surface water intakes, and 4 purchased ground water sources.

This system’s source water comes from the following aquifers and surface water bodies: Upper Potomac-Raritan-Magothy Aquifer System, Swimming River Reservoir, Shark River, Middle Potomac-Raritan-Magothy Aquifer System, Jumping Brook, Glendola Reservoir (NJWSA Manasquan System), Glendola Reservoir(Shark River)

This system can purchase water from the following water systems: Shorelands Water Company, Red Bank Water Department, Allenhurst water Department and Aberdeen Township Water Department

### Susceptibility Ratings for NJ American Water – Monmouth System Sources

The table below 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), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system’s source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes’ susceptibility to radionuclides was not determined and they all received a low rating.

**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 if 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.

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 - 30			30			30			30			30		18	12		19	11			30		18	12
Surface water intakes - 5	5			1	4			2	3		5		3	2				5			5	5		

**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.

**Volatile Organic Compounds:** Man-made chemicals used 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. Common sources include land application and manufacturing centers of pesticides. 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, asbestos, copper, lead, and nitrate.

**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.