

Glassboro Water Department 2007 Annual Drinking Water Quality Report

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. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

We are committed to ensuring the quality of your water. Our wells draw groundwater from the Cohansey, Potomac/Rartan/Magothy and Mount Laurel Aquifers.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system, which is available at WWW.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system to obtain information regarding your water system's Source Water Assessment. This water system's source water susceptibility ratings and a list of potential contaminant sources is attached.

We are required to monitor for over 80 contaminants. Part of that requirement is to test 20 samples per month for the presence of coliform bacteria. Although some months we actually test more than the required amount, for the month of November we only did 19. This is a DEP violation. However, the over 240 samples we did test in 2006 were free of bacteria

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

This report shows our water quality and what it means.

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

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

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

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

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

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.

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.

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).

EPA requires monitoring for over 80 drinking water contaminants. Those contaminants listed in the table are only contaminants detected in your water.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Units of Measur ement	MC LG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total coliform Bacteria	N			0	Systems that sample <40 per month the MCL is 1 positive monthly sample. More than 40 presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform <i>and</i> <i>E.coli</i>	N			0	a routine <i>sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive</i>	Human and animal fecal waste
Radioactive Contaminants						
Alpha emitters	N	1.96	pCi/1	0	15	Erosion of natural deposits
Combined radium	N	.516	pCi/1	0	5	Erosion of natural deposits

Inorganic Contaminants:						
Fluoride	N	2.12	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Regulated Disinfectants	Level Detected (Average & Highest Detect)	MRDL	MRDLG
Chlorine	3.6	4.0 ppm	4.0 ppm

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 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

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Secondary Contaminant	Level Detected	Units of Measurement	RUL
Sodium	152.0	ppm	50

Sodium

For healthy individuals the sodium intake from water is not important, because a much greater amount of sodium is ingested in a normal diet. However sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

As you can see from the chart although we had no violations we are above the Recommended Upper Limit for sodium. Glassboro water has been at this level for many years and we are presently making plans to build a reverse osmosis treatment plant which will lower the sodium levels to below 50.

As stated earlier, your drinking water meets and exceeds all Federal and State safety requirements.

If you have any questions about this report or concerning your water utility, please contact Greg Sawyer at 881- 9230 ext. 114. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Borough Council meetings at the Borough Hall on 1 South Main Street. Meetings are held at 8:00 p.m. on the second and fourth Tuesday of each month except June, July and August when they are only the fourth Tuesday.

The Glassboro Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2006.

The state allows us to monitor for substances 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 projection, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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.

To ensure the continued quality of our water we treat it in several ways.

The water from our four Potomac/Raritan wells is pumped from over six hundred feet underground directly into our mains, needing only Chlorination as it enters. Chlorination is a State required disinfection process which kills any bacteria present in the water. Although some people may be able to smell or taste the chlorine at times, it is necessary that it is present to insure that water traveling miles to all areas of town stays bacteria free.

Our three Cohansey wells are pumped from wells approximately 100 feet underground. They are then filtered through our treatment plant to remove iron, chlorinated and then pumped into the mains

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for asbestos and synthetic organic chemicals for 2006.

Glassboro Water Department – PWSID # 0806001

Glassboro Water Department is a public community water system consisting of 8 well(s), 0 wells under the influence of surface water, 0 surface water intake(s), 2 purchased ground water source(s), and) purchased surface water source(s).

This system’s source water comes from the following aquifer(s) and/or surface water body(s) (if applicable): Kirkwood-Cohansey water-table aquifer system, Mount Laurel-Wenonah aquifer, upper Potomac-Raritan-Magothy aquifer.

This system purchases water from the following water system(s) (if applicable):

Susceptibility Ratings for Glassboro Water Department 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 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 – 8		2	6	3		5		3	5	3		5		7	1	3	4	1		4	4	3	5	
GUDI – 0																								
Surface water Intakes - 0																								

- **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 in dissolved organic material (for example leaves) present in surface water.