

Annual Drinking Water Quality Report **Woodbury City Water Department** **For the Year 2006**

Our sources are 5 wells that draw their water from the Potomac-Raritan-Magothy Aquifer over 160 feet deep and also the New Jersey American 'Tri-County Pipeline' to supplement our allocated quantity.

The New Jersey Department of Environmental Protection (NJDEP) is preparing Source Water Assessment Reports and Summaries for all public water systems, which are expected to be complete in 2005. Further information on the Source Water Assessment Program can be obtained by logging onto NJDEP's source web site at www.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

For information about the water from New Jersey-American please contact Laura Vancho, Water Quality American Water, 1025 Laurel Oaks Road, NJ 08043 or (732) 933-5949.

We are pleased to report that our drinking water is safe and meets federal and state requirements.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact **Richard Leidy** or **Mike Walsh** at (856)853-0892 x-202. 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 City Council meetings at City Hall, 33 Delaware St., Woodbury NJ. Meetings are held second and fourth Mondays at 7:30 PM.

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

DEFINITIONS

On the enclosed tables 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:

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.

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

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. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety.

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.

Parts per billion (PPB) or Micrograms per Liter – one part per billion corresponds to one minute in 2000 years or a single penny in \$10,000,000.

Secondary Maximum Contaminant Level – (SMCL) Federal drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as odor, taste, or appearance. Secondary standards are recommendations, not mandates.

ND = Non Detect Below the threshold for testing method.

ADDITIONAL INFORMATION

The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organics chemicals, and synthetic organic chemicals. Our system has received monitoring waivers for all of these types of contaminants.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituent's, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Drinking water, including bottled water, may reasonably expect 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

The source of drinking water (both tap water and bottled water) included 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 animal 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, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, include synthetic and volatile organic chemicals, which are byproducts 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.

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 bottle water, which provide the same protection for public health.

Special considerations regarding children, pregnant women and nursing mothers: Children may receive a slightly higher amount of a contaminant present in 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 sufficient toxicity information for 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 health endpoints upon which the standards are based.

HEALTH EFFECTS of DETECTED CONTAMINANTS

Gross Alpha - Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Barium – Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Copper – Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver and kidney damage. People with Wilson's disease should consult their personal doctor.

Di (2-ethylhexyl) adipate – Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.

Fluoride – Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Lead – 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 materials used in your plumbing. If you are concerned about elevated lead levels in your home water, you may wish to have the water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791). Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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

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

TTHMs (Total Trihalomethanes) – 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 system and may have an increased risk of getting cancer.

1.1 Dichloroethylene – Some people who drink water containing 1.1 Dichloroethylene in excess of the MCL over many years could experience problems with their liver.

1.2 Dichloroethane - Some people who drink water containing 1.2 Dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

Cis-1.2 Dichloroethylene - Some people who drink water containing cis-1.2 Dichloroethylene in excess of the MCL over many years could experience problems with their liver.

1.1.1-Trichloroethane – Some people who drink water containing 1.1.1- Trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.

A review of the analytical results indicates that Sodium was detected during the year of 2006 above the Secondary Standard of 50 ppm. The sodium result was 94.8 ppm for one of the three points of entry supplying water to the City of Woodbury water customers. For healthy persons, the sodium content of water is insignificant because the intake of sodium from food accounts for approximately 90% of the daily intake of sodium. However, for persons placed on a low-sodium diet because of heart, kidney, or circulatory ailments, or complications in pregnancy, sodium in water must be considered.

We at the City of Woodbury Water Department work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call our office if you have any questions.

Results for NJAWC Water System

Regulated Substances

Contaminant	Units	Compliance Achieved?	MCLG	MCL	Range Detected	Highest Level Detected	Typical Source
Inorganic Chemicals							
Barium	ppm	Yes	2	2	0.011	0.011	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits
Fluoride	ppm	Yes	4	4	ND to .32	0.32	Erosion of natural deposits; water additive that promotes strong teeth
Nitrate	ppm	Yes	10	10	ND to 2.85	2.85	Runoff from fertilizer use; industrial or domestic wastewater discharge; erosion of natural deposits
Nitrite	ppm	Yes	1	1	ND to 0.005	0.005	Runoff from fertilizer use; industrial or domestic wastewater discharge; erosion of natural deposits
Nickle	ppb	Yes	100	100	1.3	1.3	Erosion of Natural Deposits

Volatile Organic Chemicals

1,1-Dichloroethane	ppb	Yes	50	50	ND to 1.2	1.2	Discharge from metal degreasing sites and other factories
1,2-Dichloroethane	ppb	Yes	0	2	ND to 0.6	0.6	Discharge from industrial chemical factories
Methyl Tertiary Butyl Ether (MTBE)	ppb	Yes	70	70	ND to 1.6	1.6	Leaking underground gasoline or fuel oil tanks, gasoline or fuel oil spills
1,1-Dichloroethylene	ppb	Yes	2	2	ND to 0.6	0.6	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene	ppb	Yes	70	70	ND to 0.9	0.9	Discharge from industrial chemical factories
1,2-Dichloropropane	ppb	Yes	0	5	ND to 0.8	0.08	Discharge from industrial chemical factories
Dichloromethane	ppb	Yes	0	3	ND to 0.6	0.06	Discharge from pharmaceutical and industrial chemical factories
1,1,1-Trichloroethane	ppb	Yes	30	30	ND to 0.7	0.7	Discharge from industrial chemical factories

Turbidity

Turbidity ¹	NTU	Yes	0	TT=1NTU	0.19	0.04 to 0.19	Soil Runoff
	%	Yes	NA	TT=% of Samples <.03 NTU	100%	NA	Soil Runoff

Treatment Byproducts Precursor Removal

Total Organic Carbon	Ratio	Yes	N/A	TT _≥ 1.00	1.22 to 1.72 ²	1.50 ²	Naturally present in the environment
	%	Yes	NA	TT _≥ 35-45% Removal	44 to 63	44 ³	Naturally present in the environment

Radiological Substance

Alpha Emitters	pCi/L	Yes	NA	15	ND to 11.2	11 ⁴	Erosion of Natural Deposits
Combined Radium (226/228)	pCi/L	Yes	NA	5	ND to 4.6	4 ⁴	Erosion of Natural Deposits
Uranium	ug/L	Yes	NA	30	ND to 14	9 ⁴	Erosion of Natural Deposits

Secondary Contaminants

Contaminant	Units	RUL	Range Detected	Highest Level Detected	Typical Source
Sodium	ppm	50	9 to 55	55	Naturally Occurring

Results for the City of Woodbury Water System

Contaminant	Units	MCLG	MCL	Range Detected	Highest Level Detected	Typical Source
Inorganic Chemicals						
Nitrite	ppm	1	1	<0.2	ND	Runoff from fertilizer use; industrial or domestic wastewater discharge; erosion of natural deposits
Nitrate	ppb	10	10	<0.50	ND	Runoff from fertilizer use; industrial or domestic wastewater discharge; erosion of natural deposits
Radiological Substance						
Alpha Emitters (Tested 12/27/00 as part of a four year testing cycle)	pCi/L	0	15	3.8 +/- 0.9	ND	Erosion of Natural Deposits
Secondary Contaminants						
Sodium	ppm	SMCL=50		11.4-94.8	94.8	Erosion of Natural Deposits
Lead and Copper						
Copper, Tested 10/22/06 as part of a three year testing cycle)	ppm	1.3	Action Level =1.3	ND	0.639 at 90th percentile	Corrosion of household plumbing system, erosion of natural deposits, and leeching from wood preservatives
Lead Tested 10/22/06 as part of a three year testing cycle)	ppm	0	Action Level =0.015	ND	<0.002 at 90th percentile	Corrosion of household plumbing system, erosion of natural deposits

