



Moorestown Township Public Works  
601 East 3rd Street, Moorestown, NJ 08057

2006 Annual Water Quality Report  
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Postal Customer –  
Moorestown, NJ 08057

# 2006 annual water quality report



Moorestown Township  
PWS ID# NJ 0322001  
(Public Water Supply  
Identification Number)

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## Our Commitment to Quality

Once again we proudly present our annual water quality report which details the results of water quality testing completed from January to December, 2006. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Included in this report are details about where your water comes from, what it contains, and how our water quality results compare to federal and state standards.

We are pleased to tell you that we had no Safe Drinking Water Act violations again in 2006. We are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

We want you to be informed about your drinking water. For more information about this report, or for any questions relating to your drinking water, please call the Moorestown Township Department of Public Works at 856-235-3520.

## Public Participation – How Can I Get Involved?

If you have questions or would like to become involved in discussions about your water quality, the Moorestown Township Council meets on the 2nd and 4th Monday at 8:00pm at the Town Hall, 111 West Second Street.

## How to Contact Us

Moorestown Township welcomes your comments and questions as they relate to the quality of your water. For more information about this report, or for any questions relating to your drinking water, contact us at (856) 235-3520.

Moorestown Township Public Works  
601 East 3rd Street, Moorestown, NJ 08057  
www.moorestown.nj.us/public\_works/  
(856) 235-3520 • fax: (856) 231-1514  
Emergency: (856) 235-0550 (24 hours/7 days a week)

*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 información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.*

## Where Does Our Water Come From?

Your drinking water comes from a blend of sources that may include groundwater from the Potomac-Raritan-Magothy Aquifer and surface water from the Delaware River.

## What's in the Source Water Before We Treat It?

In general, 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 can pick up substances resulting from the presence of animals or from human activities.

## Substances That May Be Present in Source Water Include:

- **Microbiological Contaminants:** such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.
- **Inorganic Contaminants:** such as salts and metals which can be naturally occurring or may 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 agriculture, urban stormwater runoff and residential uses.
- **Organic Chemical Contaminants:** including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff and septic systems.
- **Radioactive Contaminants:** which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Source water protection is a long-term dedication to clean and safe drinking water. It is a member of the community has an important role in source water protection. NJDEP recon land acquisition, conservation easements or hazardous waste collection programs. We will

## Protecting Your Water Source What is S.W.A.P.

SWAP (Source Water Assessment Program) is a program of the New Jersey Department of Environmental Protection (NJDEP) to study existing and potential threats to the quality of public drinking water sources throughout the state. Sources are rated depending upon their contaminant susceptibility.

## Susceptibility Ratings for Moorestown Township 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. Definitions, Source Water Assessment Reports and Summaries are available for public water systems at www.state.nj.us/dep/swap/ or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

## Contaminant Categories

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-6				6			6			6			6			1	5			6				
GUDE-0																								
Surface water intakes-0																								

it effective to prevent contamination than to address contamination after the fact. Every controlling activities and development around drinking water sources whether it is through ue to keep you informed of SWAP's progress and developments.

## Vulnerable Populations Statement

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

## How Do I Read the Table of Detected Contaminants?

Two data tables are provided to represent water quality from each source in our system. Potable water sources are designated by a public water system identification number (PWSID#). PWSID # NJ 0322001 corresponds to the ground water system operated by Moorestown Township. Data for potable water purchased from New Jersey American Water is listed under PWSID # NJ 0327001.

Starting with the **Contaminant**, read across from left to right. A "Yes" under **Compliance Achieved** means the amount of the substance met government requirements. The column marked **MCLG**, **Maximum Contaminant Level Goal**, 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. The shaded column marked **MCL**, **Maximum Contaminant Level**, 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. The column marked **Range Detected** shows the highest and lowest test results for the year. The shaded column marked **Highest Level Detected** shows the highest test results during the year. **Typical Source** shows where this substance usually originates. Compare the detected values with the MCL column. To be in compliance, the **Highest Level Detected** must be lower than the MCL standard. Those substances not listed in the table were not found in the treated water supply.

As you can see from the data, our system had no MCL violations again this year. The footnotes and the definitions to the right will help you interpret the data presented in the Table of Detected Contaminants.

PWS ID# NJ 0322001 - Moorestown Table of Detected Contaminants - 2006

Regulated Substances							
Contaminant	Units	Compliance Achieved	MCLG	MCL	Highest Level Detected	Range Detected	Typical Source
<b>Inorganic Chemicals</b>							
Barium	ppm	Yes	2	2	0.0677	0.0301 to 0.0677	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nickel	ppb	Yes	100	100	10.5	ND to 10.5	Naturally present in the environment
Nitrate	ppm	Yes	10	10	4.56	4.56	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
<b>Microbiologicals</b>							
Total Coliform Bacteria	% of monthly samples	Yes	0	5	4%	0 to 4%	Naturally present in the environment
<b>Volatile Organic Chemicals</b>							
Trichloroethene	ppb	Yes	NA	1	0.280	ND to 0.280	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills
<b>Treatment Byproducts</b>							
Five Haloacetic Acids [HAA5]	ppb	Yes	NA	60	5	ND to 5	By-product of drinking water disinfection
Total Trihalomethanes [THMs]	ppb	Yes	NA	80	41	ND to 41	By-product of drinking water disinfection
<b>Radiological Substances</b>							
Gross Alpha	pCi/L	Yes	NA	15	14	ND to 14	Erosion of natural deposits
Combined Radium (226/228)	pCi/L	Yes	NA	5	3.0	ND to 3	Erosion of natural deposits
Uranium	ppb	Yes	NA	30	20	2 to 20	Erosion of natural deposits
Tap water samples were collected from 33 homes in the service area for Copper/Lead							
Contaminant	Units	Compliance Achieved	MCLG	MCL	Amount Detected (90th %tile)	Homes Above Action Level	Typical Source
Copper (2005) <sup>1</sup>	ppm	Yes	1.3	1.3	0.0453	0	Corrosion of household plumbing systems
Lead (2005) <sup>1</sup>	ppb	Yes	0	15	5.2	0	Corrosion of household plumbing systems
Secondary Contaminants	Units	RUL	Range Detected	Highest Level Detected	Typical Source		
Sodium	ppm	50	2.03 to 5.17	5.17	Naturally Occurring		
Fluoride	ppm	1.2	<0.2	<0.2	Erosion of natural deposits; water additive which promotes strong teeth, discharge from fertilizer and aluminum factories		
Sulfate	ppm	250	8.47 to 10.6	10.6	Erosion of natural deposits		

PWS ID# NJ 0327001 - Western System Table of Detected Contaminants - 2006

Regulated Substances							
Contaminant	Units	Compliance Achieved	MCLG	MCL	Highest Level Detected	Range Detected	Typical Source
<b>Inorganic Chemicals</b>							
Barium	ppm	Yes	2	2	0.011	0.011	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	ppm	Yes	4	4	0.32	ND to 0.32	Erosion of natural deposits; water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Nickel	ppb	Yes	100	100	1.3	1.3	Erosion of natural deposits
Nitrite	ppm	Yes	1	1	0.005	ND to 0.005	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
Nitrate	ppm	Yes	10	10	2.85	ND to 2.85	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
<b>Volatile Organic Chemicals</b>							
1,1-Dichloroethane	ppb	Yes	50	50	1.2	ND to 1.2	Discharge from metal degreasing sites and other factories
1,2-Dichloroethane	ppb	Yes	0	2	0.6	ND to 0.6	Discharge from industrial chemical factories
1,1-Dichloroethylene	ppb	Yes	2	2	0.6	ND to 0.6	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene	ppb	Yes	70	70	0.9	ND to 0.9	Discharge from industrial chemical factories
1,2-Dichloropropane	ppb	Yes	0	5	0.8	ND to 0.8	Discharge from industrial chemical factories
Dichloromethane	ppb	Yes	0	3	0.6	ND to 0.6	Discharge from pharmaceutical and chemical factories
Methyl tertiary Butyl Ether (MTBE)	ppb	Yes	70	70	1.6	ND to 1.6	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills
1,1,1-Trichloroethane	ppb	Yes	30	30	0.7	ND to 0.7	Discharge from metal degreasing sites and other factories
<b>Turbidity</b>							
Turbidity <sup>2</sup>	NTU	Yes	0	TT = 1 NTU	0.19	0.04 to 0.19	Soil runoff
	%	Yes	NA	TT = % of samples <0.3 NTU	100%	NA	Soil runoff
<b>Treatment Byproducts Precursor Removal</b>							
Total Organic Carbon	Ratio	Yes	NA	TT ≥ 1.00	1.50 <sup>3</sup>	1.22 to 1.72 <sup>3</sup>	Naturally present in the environment
	%	Yes	NA	TT ≥ 35-45% Removal	44 <sup>4</sup>	44 to 63	Naturally present in the environment
<b>Radiological Substances</b>							
Alpha Emitters	pCi/L	Yes	NA	15	11 <sup>5</sup>	ND to 11.2	Erosion of natural deposits
Combined Radium (226/228)	pCi/L	Yes	NA	5	4 <sup>5</sup>	ND to 4.6	Erosion of natural deposits
Uranium	ug/L	Yes	NA	30	9 <sup>5</sup>	ND to 14	Erosion of natural deposits
Secondary Contaminants	Units	RUL	Range Detected	Highest Level Detected	Typical Source		
Sodium	ppm	50	9 to 55	55	Naturally Occurring		

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.

Footnotes: 1. The State of New Jersey allows us to monitor for certain contaminants less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative, are more than one year old. 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. It is used as an indication of the performance of the surface water treatment plant in Delran. We monitor turbidity because it is a good indicator of water quality. High turbidity can hide the effectiveness of disinfectants. 3. Data represents a Ratio of Actual to Required Removal. Values > 1.0 indicate that the treatment process removed more Total Organic Carbon than required. Compliance is based on a running annual average. 4. Data represents the lowest removal of Total Organic Carbon. 5. This level represents the highest average of all sampling points. Compliance is based on a running annual average of quarterly data.

## Water Quality Statement



The data presented in the Table of Detected Contaminants is the same data collected to comply with U.S. Environmental Protection Agency and New Jersey state monitoring and testing requirements. We have learned through our testing that some contaminants have been detected, however, these contaminants were detected well below the levels set by the EPA to protect public health. To assure high quality

water, individual water samples are taken each year for chemical, physical and microbiological tests. Tests are done on water taken at the source, from the distribution system after treatment and, for lead and copper monitoring, from the customer's tap. Testing can pinpoint a potential problem so that preventive action may be taken. 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 has received monitoring waivers for synthetic organic chemicals and asbestos.

## Sources of Information:

- U.S. Environmental Protection Agency Safe Drinking Water Hotline: 1-800-426-4791
- New Jersey Department of Environmental Protection Bureau of Safe Drinking Water: (609) 292-5550
- New Jersey Board of Public Utilities: (973) 648-2350  
Two Gateway Center, Newark, NJ 07102  
Division of Customer Relations: 1-800-624-0241

## Table Definitions:

- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **MCLG (Maximum Contaminant Level Goal):** 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.
- **MCL (Maximum Contaminant Level):** 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.
- **NA:** Not Applicable
- **ND:** Not Detected
- **90th Percentile Value:** Of the samples taken, 90% of the values of the results were below the level indicated in the table.
- **ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).
- **ppm (parts per million):** One part substance per million parts water (or milligrams per liter).
- **pCi/L (picoCuries per liter):** Measurement of the natural rate of disintegration.
- **NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **RUL:** Recommended upper limit