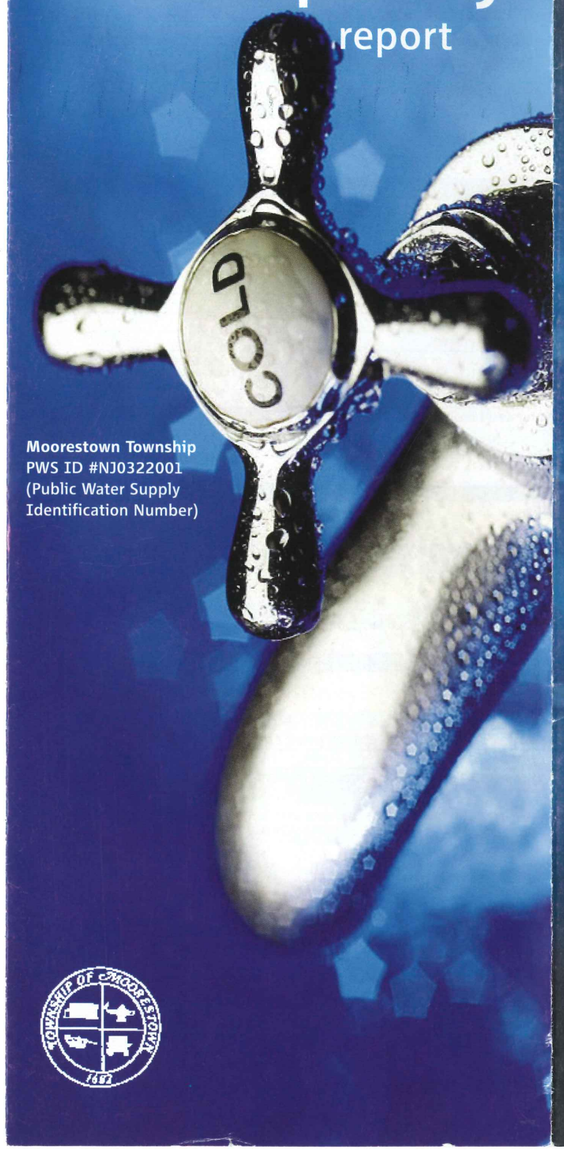
2005 annual water quality report



Moorestown Township
PWS ID #NJ0322001
(Public Water Supply Identification Number)

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, 2005. 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 2005. 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.

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.

	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors		
Sources	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			6			1	5			6		6
GUDI-0																								
Surface water intakes-0																								

Source water protection is a long-term dedication to clean and safe drinking water. It is more cost effective to prevent contamination than to address contamination after the fact. Every member of the community has an important role in source water protection. NJDEP recommends controlling activities and development around drinking water sources whether it is through land acquisition, conservation easements or hazardous waste collection programs. We will continue 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?

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 shaded column marked **Range Detected** shows the highest and lowest test results for the year. The column marked **Highest Level Detected** shows the highest test results during the year. **Typical Source** shows where this substance usually originates. Compare the Range 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 table, our system had no MCL violations again this year. The footnotes and the definitions below will help you interpret the data presented in the Table of Detected Contaminants.

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

PWS ID# NJ 0322001 - Moorestown Table of Detected Contaminants - 2005

Regulated Substances

Contaminant	Units	Compliance Achieved	MCLG	MCL	Range Detected	Highest Level Detected	Typical Source
Inorganic Chemicals							
Barium	ppm	Yes	2	2	0.0230 to 0.0735	0.0735	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Arsenic	ppb	Yes	0	10	ND to 3.1	3.1	Discharge from steel and pulp mills; erosion of natural deposits
Selenium	ppm	Yes	4	4	ND to 0.0028	0.0028	Erosion of natural deposits; water additive that promotes strong teeth
Manganese	ppm	Yes	0	0.05	ND to 0.0101	0.0101	Naturally present in the environment
Nickel	ppm	Yes	0	0.1	ND to 0.0101	0.0101	Naturally present in the environment
Nitrate	ppm	Yes	10	10	ND to 4.47	4.5	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
Treatment Byproducts							
Five Haloacetic Acids [HAA5]	ppb	Yes	NA	60	ND to 5	5	By-product of drinking water disinfection
Total Trihalomethanes [TTHMs]	ppb	Yes	NA	80	ND to 47.6	48	By-product of drinking water disinfection
Volatile Organic Chemicals							
All Volatile Organic Compounds < Method Detection Limit	NA	Yes	NA	ND		ND	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills

Tap water samples were collected from 33 homes in the service area for Copper/Lead

Contaminant	Units	Compliance Achieved	MCLG	Action Level	Amount Detected (90th %tile)	Homes Above Action Level	Typical Source
Copper	ppm	Yes	1.3	1.3	0.0453	0	Corrosion of household plumbing systems
Lead	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	ND to 5.85	5.85	Naturally Occurring

Moorestown Township purchases treated surface water from The Delaware River Regional Water Treatment Plant (PWSID # NJ 0327001) operated by New Jersey American Water and located in Delran.

PWS ID# NJ0327001 - Table of Detected Contaminants - 2005

Regulated Substances

Contaminant	Units	Compliance Achieved	MCLG	MCL	Range Detected	Highest Level Detected	Typical Source
Inorganic Chemicals							
Barium	ppm	Yes	2	2	0.014	0.014	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nickel	ppm	Yes	0.1	0.1	0.001	0.001	Erosion of natural deposits
Nitrate	ppm	Yes	10	10	1.64	1.64	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
Volatile Organic Chemicals							
Methyl Tertiary Butyl Ether (MTBE)	ppb	Yes	70	70	0.5	0.5	Leaking underground gasoline and fuel oil tanks, gasoline and fuel oil spills
Turbidity							
Turbidity [1]	NTU	Yes	NA	TT	0.04 to 0.22	0.22	Soil runoff
Treatment Byproducts Precursor Removal							
Total Organic Carbon	% Removal	Yes	NA	TT - 35% Removal Required	38 - 65	42.5 [2]	Naturally present in the environment
Radiological Substances							
Alpha Emitters	pCi/L	Yes	0	15	0 to 1.89	1.15 [2]	Erosion of natural deposits
Combined Radium (226/228)	pCi/L	Yes	0	5	0 to 1.05	0.167 [2]	Erosion of natural deposits

Secondary Contaminants	Units	RUL	Range Detected	Highest Level Detected	Typical Source
Sodium	ppm	50	4 to 60	11	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

Sulfate	ppm	250	13.4	13.4	Erosion of natural deposits

Footnotes

1. 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 hinder the effectiveness of disinfectants.
2. This level represents the highest annual quarterly average calculated from the data collected. Compliance is based on running annual average.

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.

Wise Water Use Tips

Wise water use is an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Wise water tips you can use inside your home:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

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