

**For more information...**

*Water quality* - call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline, 1-800-426-4791

State of New Jersey Department of Environmental Protection, Bureau of Safe Drinking Water:

[www.state.nj.us/dep/watersupply/safedrnk.htm](http://www.state.nj.us/dep/watersupply/safedrnk.htm)  
(609) 292-5550

*Local drinking water quality* - call the City of Bordentown Water Department at 609-298-2121 Extension 5

## *Mission Statement*

We at the City of Bordentown Water Department work hard each day to provide high-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.

# City of Bordentown Water Department

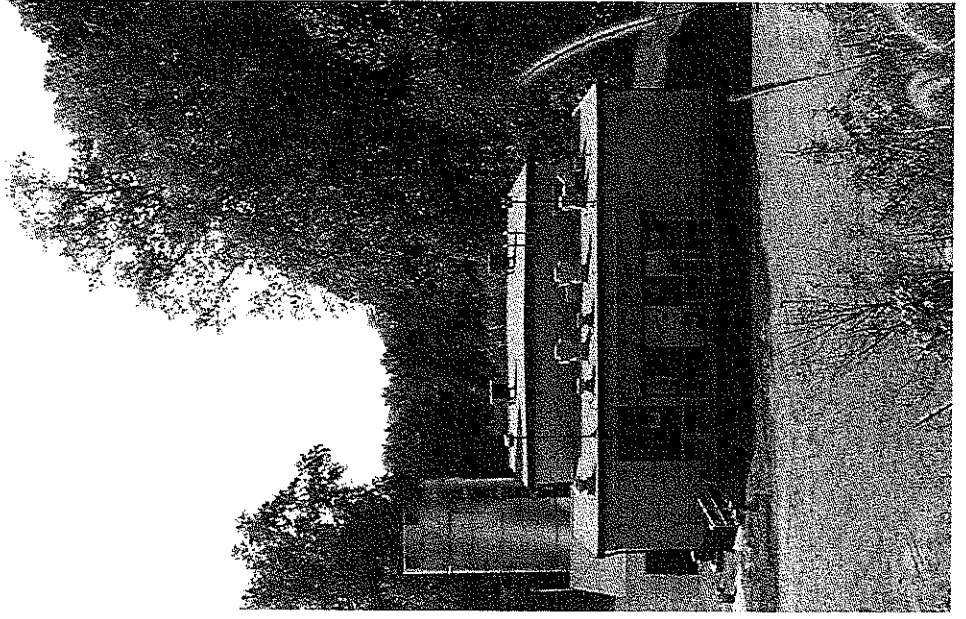
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## 2004 Annual Drinking Water Quality Report

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City of Bordentown Water Department  
324 Farnsworth Avenue  
Bordentown, NJ 08505



# We're 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 that the City of Bordentown Water Department delivers to you every day. Our constant goal is to provide you with a dependable supply of high-quality 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.

## Where does my water come from?

The raw water we treat comes from groundwater supplied from the Magothy-Raritan aquifer. For 2004 we produced approximately 2.16 million gallons of high-quality drinking water for our customers on a daily basis.

## How is my water treated?

The City of Bordentown water treatment plant uses a treatment process consisting of sand-filtration pressure filters, a packed tower aerator and disinfection along with pH adjustment and corrosion control treatment.

## How is the drinking water quality?

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. The City of Bordentown Water Department routinely monitors for constituents in your drinking water according to Federal and State laws. The table on the other side of this report shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2004. 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 water poses a health risk.

## Waived Requirements

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 synthetic organic chemicals.

## How do drinking water sources become polluted?

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 or 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.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.
- **Organic chemical contaminants**, including synthetic or volatile organic chemicals which may include pesticides and herbicides which

may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses or by-products of industrial processes and petroleum production, gas stations, or septic systems.

## What if I have questions?

If you have any questions about this Water Quality Report or concerning your water utility, please contact the City of Bordentown at (609) 298-2121 extension 5. 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 public meetings. They are held at 8:00 p.m. on the second and fourth Monday of each month at the Bordentown City Hall, 324 Farnsworth Avenue. If you have questions regarding the source water assessment report or summary, please contact the NJDEP's Bureau of Safe Drinking Water at (609) 292-5550.

## People with Special Health Concerns

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).

# City of Bordentown Water Department's 2004 Drinking Water Quality Results

Contaminant (Unit of measurement)	Violation Y/N	Level Detected	Range & Sample Date*	MCLG	MCL	Likely Source of Contamination	Potential Health Effects
<b>Disinfection Byproducts</b>							
<b>THMs (Total Trihalomethanes) (ppb)</b>							
	No	1.8 (average)	0.21 - 2.46	n/a	80 (a)	By-product of drinking water disinfection	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 systems, and may have an increased risk of getting cancer.
<b>Radioactive Contaminants</b>							
<b>Alpha emitters (pCi/L)</b>							
	No	12.8 (b) (average)	9.4 - 16	0	15	Erosion of natural deposits	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.
<b>Combined radium (pCi/L)</b>							
	No	1.7 (b) (average)	1.4 - 2.2	0	5	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
<b>Inorganic Contaminants</b>							
<b>Barium (ppm)</b>							
	No	0.04	(c) 7/2/02	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
<b>Cadmium (ppb)</b>							
	No	1.2	(c) 7/2/02	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
<b>Copper (ppm)</b>							
	No	0.138 (90 <sup>th</sup> percentile)	(d)	1.3	AL=1.3**	Corrosion of household plumbing systems; erosion of natural deposits	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 or kidney damage. People with Wilson's Disease should consult their personal doctor.
<b>Lead (ppb)</b>							
	No	ND (90 <sup>th</sup> percentile)	(d)	0	AL=15**	Corrosion of household plumbing systems, erosion of natural deposits	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.
<b>Nitrate (as Nitrogen) (ppm)</b>							
	No	0.80	9/2/04	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	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.
<b>Volatile Organic Contaminants</b>							
<b>Trichloroethylene (ppb)</b>							
	No	0.55 (average)	0.49 - 0.61	0	1	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

**Footnotes:**

- (a) The MCL for THMs for ground water systems was reduced from 100 ppb to 80 ppb as of January 1, 2004.
  - (b) Average is based on quarterly samples taken at a representative location within the distribution system.
  - (c) Only one sample required for the 2002 - 2004 compliance period.
  - (d) None of the 30 samples we collected exceeded the action level.
- 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.
- \*\* Copper and Lead MCLs have not yet been established for community water systems. Currently only Action Levels of 1.3 ppm Copper and 15 ppb Lead apply.

## What does the table mean?

As you can see by the table above, our system had **no violations**. We are pleased to report that your water meets all EPA and State drinking water health standards.

## GLOSSARY

- **Parts per million (ppm)**  
One part per million is equivalent to a single penny in ten thousand dollars.
- **Parts per billion (ppb)**  
One part per billion is equivalent to a single penny in ten million dollars.
- **Not-Applicable (n/a)**

## Source Water Assessments

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](http://www.state.nj.us/dep/swap) or by contacting the NJDEP, Bureau of Safe Drinking Water at (609) 292-5550. The source water assessment was performed for our four water supply wells, and the following list provides the number of wells that had a high (H), medium (M), or low (L) susceptibility rating for each of seven contaminant categories. The definition of each contaminant category is provided after the susceptibility rating for the four wells, which are found enclosed within the parenthesis.

**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

- **Action Level (AL)**

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

- **Picocuries per liter (pCi/L)**  
Picocuries per liter is a measure of the radioactivity in water.
- **Non-Detects (ND)**  
Laboratory analysis indicates that the contaminant is not present at a detectable level.

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, the NJDEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

- **Pathogens (4 Wells-M):** Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.
- **Nutrients (4 Wells-H):** Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.
- **Pesticides (4 Wells-L):** 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 chlorodane.
- **Radionuclides (2 Wells-H, 2 Wells-M):** Radioactive substances that are both naturally occurring and man made. Examples include radium and uranium.

- **Maximum Contaminant Level Goal (MCLG)**  
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allows for a margin of safety.
- **Maximum Contaminant Level (MCL)**  
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.

- **Volatile Organic Compounds (4 Wells-H):**

Man-made chemicals used as solvents, degreasers, and gasoline components.

Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

- **Inorganics (1 Well-H, 3 Wells-M):**

Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

- **Radon (4 Wells-M):** 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 (3**

**Wells-H, 1 Well-M):** 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.

## Special Considerations Regarding Children, Pregnant Women, Nursing Mothers, and Others

Children may receive a slightly higher amount of a contaminant present in the 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 insufficient toxicity information for a 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 the health endpoints upon which the standards are based.