

**Quench  
Your Thirst!**



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**2011 Annual Water  
Quality Report**

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**Borough of Freehold**  
PWSID# NJ1315001

## Borough of Freehold

732-462-0173

PWS ID # NJ1315001

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

### What's the Quality of My Water?

The Freehold Borough Water Department is pleased to share this water quality report with you. It describes to you the quality of your drinking water. This report covers January 1 through December 31, 2011. The Borough of Freehold's drinking water supply surpassed the strict regulations of both the State of New Jersey and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to prepare reports like this every year.

In 2011 our water department distributed 496.283 million gallons of water to our customers. Our water source is ground water pumped from six wells. The treatment plant underwent some piping upgrades, and the main treatment building got a new roof and should continue to serve the Borough for many more years. The distribution system continues to be systematically upgraded and flushed twice annually. Two of our wells draw from the Englishtown Aquifer; the other four wells draw from the Upper and Middle Potomac Raritan Magothy Aquifers.

The Borough of Freehold treats your water using disinfection and filtration to remove or reduce harmful contaminants that may come from the source water. Chlorine is used to disinfect the water and Fluoride is added to prevent tooth decay. The Borough also treats your water for optimum taste and odor.

As required by the 1996 Safe Drinking Water Act Amendments, the New Jersey Bureau of Safe Drinking Water completed a source water assessment plan (SWAP) in 2004. The report included a delineation of areas providing water for each of Freehold Borough Water Department's water sources, an inventory of the regulated and unregulated drinking water contaminants within the delineated area, and a determination of the system's relative susceptibility to contamination. The report showed a MEDIUM susceptibility for Inorganics (2 wells), Radionuclides (2 wells), and Disinfection Byproduct Precursors (4 wells), and a LOW susceptibility for Pathogens, Nutrients, Pesticides, Volatile Organic Compounds, Radon, Inorganics (4 wells) and Disinfection Byproduct Precursors (2 wells). The rating reflects the potential for contamination of source water, not the existence of contamination. A full report is available for viewing upon request.

If you have any questions about this report or concerning your water utility, please contact Michael T. Baker, Superintendent, by calling 732-462-0173 or by writing to this address: 51 West Main Street; Freehold, NJ 07728. We want our valued customers to be informed about their water utility. You can attend City Council meetings on the first and third Monday of each month, at 7:30 pm, in Borough Hall, located at 51 West Main Street in Freehold.

### The U.S. Environmental Protection Agency (EPA) wants you to know:

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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 that 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 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 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 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. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products 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.

## 2011 Monitoring Results for Borough of Freehold

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Contaminant	Unit	MCLG Health Goal	MCL	Level Detected	Range Detected	Violation (Yes/No)	Year Sampled <sup>1</sup>	Potential Source of Contamination
<b>Inorganic Contaminants</b>								
Barium	ppm	2	2	.0465	NA	No	2008	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.								
Cooper	ppm	1.3	1.3 = AL	0.192 (90th percentile)	0.0067-.801	NO	2010	Plumbing fixtures, erosion of natural deposits, leaching from wood preservatives
				All samples below AL				
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.								
Flouride	ppm	4	4		1.00-1.87	No	2011	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Some people who drink water containing flouride in excess of the MCL over many years could get bone disease, including pain and tenderness in the bones. Flouride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than 9 years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth, before they erupt from the gums.								
Lead	ppb	0	15 = AL	ND (90th percentile)	0002-.0147	No	2010	Erosion of natural deposits, plumbing fixtures.
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 high blood pressure or kidney problems.								
<b>Volatile Organic Contaminants &amp; Disinfection Byproducts</b>								
Chlorine	ppm	MRDLG = 4	MRDL - 4	0.39 (annual average)	.20-2.00	No	2011	Water additive used to control microbes.
Some people who use water in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort and anemia.								
HAA5s (Haloacetic Acids)	ppb	NA	60	1.54 (annual average)	0.1-0.2	No	2011	Byproduct of drinking water chlorination
Some people who drink water containing Haloacetic acids in excess of the MCL over many years have an increased risk of getting cancer.								
TTHMs (Total Trihalomethanes)	ppb	0	80	15.86 (annual average)	0-6	No	2011	Byproduct of drinking water chlorination.
Some people who drink water containing total trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidney, or central nervous system, and may have an increased risk of getting cancer.								

### Lead Information

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Borough of Freehold is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Regulated Secondary Substances			
Regulated in order to protect odor, taste and appearance of drinking water. Results are from 2010 unless otherwise noted. <sup>1</sup>			
Substance	Unit	Amount detected	Recommended Upper Limits
Sodium (2008)	ppm	2.94	50
Sulfate (2008)	ppm	10.4	250
Manganese	ppm	0.006	0.05
Iron	ppm	0.0896	0.3
Unregulated Substances			
Unregulated Contaminant Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.			
Substance	Unit	Amount detected	Year Sampled
Alkalinity	ppm	97.8	2011
Bromodichloromethane	ppb	1.04	2011
Chloroform	ppb	1.57	2011
Hardness	ppm	98.2	2011
pH	su	7	2011
Total Dissolved Solids	ppm	137	2011

### Definitions:

**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.

**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 allow for a margin of safety.

**Maximum Residual Disinfectant Level 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 contaminants.

**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.

**Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Variance:** State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**90th Percentile:** 90% of samples are equal to or less than the number in the chart.

**NA:** Not applicable.

**ND:** Not detectable at testing limits.

**PPB (parts per billion):** micrograms per liter (ug/l).

**PPM (parts per million):** milligrams per liter (mg/l).

**CDC:** Centers for Disease Control.

**EPA:** Environmental Protection Agency.

**SU:** Standard Unit.

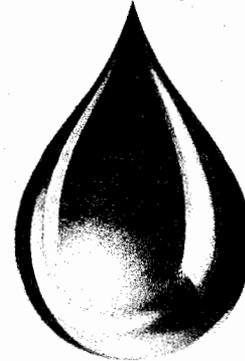
### Notes:

#### Waiver:

Under a waiver granted on December 30, 1998 by the State of New Jersey Department of Environmental Protection, our system does not have to monitor for synthetic organic chemicals/pesticides because several years of testing have indicated that these substances do not occur in our source water.

The SDWA 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 and asbestos.

<sup>1</sup> 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 accurate, are more than one year old.



### Special Notices:

#### 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), and 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 cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

**Nitrate Information:** 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.