Fair Lawn Water Department

Borough of Fair Lawn

2006 Annual Water-Quality Report

PWS ID 0217001 June 2007

Dear Customer:

The Fair Lawn Water Department has been providing safe, quality drinking water to the people of Fair Lawn since the 1920's. Safe clean water is essential to our well being. That's why we want you to know that your water meets or exceeds standards set by the New Jersey Department of Environmental Protection (NJDEP) and the U.S. Environmental Protection Agency (USEPA).

The Fair Lawn Water Department is committed to providing you with the safest and most reliable water supply. In 2006 alone, we collected more than 1000 water samples and performed more than 5000 analyses in both our "raw", or *untreated*, water and "finished", or *treated*, water to be sure that your water met the safety standards. All the test results are on file with the NJDEP, the agency that is responsible for monitoring and regulating drinking water in New Jersey.

The Safe Drinking Water Act (SDWA) has been the primary regulation to ensure that public health and safety is protected in drinking water supplies. SDWA requires all water suppliers to issue an annual Consumer Confidence Report (CCR) to customers. This water quality report is intended to share with you how well we are doing. If you have any questions about your water or your water service please call us at (201) 794-5374. You may also call the EPA safe drinking water hotline at (800) 426-4791 or find it on EPA's web site at www.epa.gov/safewater/hfacts. This report, as well as other information concerning our water supply, may be viewed on the Fair Lawn web site at www.fairlawn.org.

Water Source and Supply - Where Does it Come From?

The Fair Lawn Water Department operates 24 hours a day, seven days a week to provide a reliable supply of quality drinking water, as well as to ensure sufficient water quantity. Out of over 600 public community water systems in the State of New Jersey, the Borough's water system ranks as the 50th largest. The distribution system consists of approximately 105 miles of distribution main, 1200 fire hydrants; 4 storage tanks, having a combined capacity of 4.5 million gallons and 4 pumping stations, having a total firm pumping capacity of 17.6 million gallons per day. The treatment system consists of 4 chlorination facilities and 2 packed column VOC treatment facilities, having a capacity of 4 million gallons per day. Average daily water consumption is 4.0 million gallons per day, with peak day demands as high as 10 million gallons per day.

The NJDEP permits the Borough to operate 16 production wells, sunk about 400 feet into an underground source of water called the New Brunswick Aquifer. On average, the production wells provide fifty-five percent of the Borough's water. These wells are located throughout the Borough. After the water is pumped from the wells, we treat it to remove several contaminants.

The Borough augments its well water supply with the bulk purchase of treated water from the Passaic Valley Water Commission (PVWC) and United Water New Jersey (UWNJ). About thirty-five percent of our water comes from the PVWC. The primary source of water for the PVWC is the Pompton and Passaic Rivers. UWNJ supplies us about ten percent of our water. The primary source of water received from UWNJ come from four reservoirs, the Oradell and Woodcliff Lake reservoirs in New Jersey, and Lake Tappan and Lake Deforest reservoirs in New York. Through a vast regional network of interconnected pipelines, we may receive other treated water supplies from the Wanaque, Monksville and Boonton reservoirs.

Conserve Water it is our most precious resource!

Capital Improvements/Security

To serve you better, the Borough of Fair Lawn recently implemented a number of projects to improve water quality and reliability of our water supply system. For example, we rehabilitated two of our wells and installed new pumping equipment; installed over 30 hydrants. The Borough has completed the inspection of three one million gallon water storage tanks. The rehabilitation of one tank was completed in 2004 and another in 2005. Another tank rehabilitation project was completed in 2006. The Borough also undertook a major electrical upgrade to a major water supply pump station. The Borough installed emergency generating power at two of our major pump stations to insure continued service in the event of power outages. In light of the events of September 11 and in response to the State's Domestic Security Preparedness Act, the Borough has completed a vulnerability assessment and emergency response plan to strengthened our security measures and reviewed our operations to include a greater emphasis on security issues.

Bottled Water or Tap Water?

Rivers, lakes, reservoirs, springs and wells are sources for both tap water and bottled water. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals. In some cases this includes radioactive material. The water can also pick up others substances resulting from the presence of animals or human activity. Examples of these include salts, metals, viruses, bacteria or organic chemicals.

In order to ensure that the water is safe to drink, the federal government sets regulations that limit the amount of certain contaminants in water. The EPA prescribes regulations for contaminants in water provided by public water systems. The Food and Drug Administration (FDA) prescribes regulations for contaminants in bottled water, which 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. However, the presence of a contaminant does not necessarily indicate that the water poses a health risk.

Contaminates that may be present in source water include:

Microbial contaminates, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
Inorganic contaminates, such as salts and metals, which can be naturally occurring or a result of 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 contaminates, including synthetic 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 contaminates, which can be naturally occurring or be the result of oil and gas production and mining activities

An Explanation of the Water Quality-Data Table

It's easy! Our water is tested to assure compliance with all standards. The following definitions and terms will assist you in reading the table:

Maximum Contaminate Level Goal (MCLG) – 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.

Maximum Contaminate Level (MCL) – 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.

Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.

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

Primary Standards – Federal drinking water regulations for substances that are health-related. Water suppliers must meet all primary drinking water standards.

Secondary Standards – Federal drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as taste, odor and appearance. Secondary Standards are recommendations not mandates.

Unregulated Contaminant (UCMR) - A contaminant with no set standards. Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those 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 contaminates.

Maximum Residual Disinfectant Goal (MRLG) – 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 contamination

Key to Tables

mg/l - milligrams per liter or parts per million.
The equivalent of 1 second in 12 days

ug/l - micrograms per liter or parts per billion.
The equivalent of 1 second in 32 years.

pCi/l - Picocuries per liter.
The equivalent of 1 second in 320 centuries.

TU - Turbidity Unit

ND - Not detected

NA - Not Applicable

CU - Color Unit

MFL – Million fibers per liter

Water-Quality Data Table

This Table shows the results of our water-quality analysis. Every regulated contaminate that we detected in the treated water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and key to units of measurements.

SDWA Primary Standards (Directly related to the safety of drinking water)

Substance	EPA MCLG	NJ Standard	EPA MCL	UWNJ Highest	PVWC Highest	Fair Lawn Highest	Range	Typical Source
Inorganic Chemicals								
Barium (mg/l)	2	2	2	0.12	ND	0.12	ND-0.29	Erosion of natural deposits
Copper (Action Level; mg/l)	1.3	1.3	1.3	NA	NA	0.13	None [2]	Corrosion of household plumbing
Fluoride (not added; mg/l)	4	4	4	ND	ND	ND	ND	Erosion of natural deposits
Lead (Action Level; ug/l)	0	15	15	NA	NA	0.006	None [2]	Corrosion of household plumbing
Nitrite (mg/l)	1	1	1	ND	ND	ND	ND-0.02	Erosion of natural deposits
Nitrate (mg/l)	10	10	10	1.51	1.11	3.9	1.11-3.9	Runoff from fertilizer use; Erosion of natural deposits
Turbidity (TU)	NA	TT=95% $\leq$0.5 NTU	TT=95% $\leq$0.5 NTU	0.58	0.3	NA	98.1% - 100%	Natural silt
The above category contains 10 additional parameters, which were not detected.								
Radionuclides								
Alpha-emitters (pCi/l)	0	15	15	NA	NA	3.12	NA	Erosion of natural deposits
Volatile Organic Chemicals								
MTBE	NA	70	NA	NA	NA	0.26	NA	Gasoline additive
Haloacetic Acids[3]	NA	60	60	NA	NA	53	12-53	By-product of drinking water disinfection
Trihalomethanes.[3] (ug/l)	NA	80	80	NA	NA	88	18-88	By-product of drinking water disinfection
The above category contains 62 additional compounds that the Borough tests for, which were not detected.								
Unregulated Contaminate Monitoring Rule (UCMR)								
DCPA acid metabolites (ug/l)[4]	NA	NA	NA	ND	ND	2.6	1.4-2.6	
Distribution Disinfectant Residual	**MRDLG**	**MRDL**	**MRDL**					
Chlorine /Chloramines as CL_2 (mg/l)	4	4	4	NA	NA	0.72 Average for 50 samples/month	NA	Treatment Process. Chlorine is used a drinking water disinfectant

Footnotes:

1. Reserved. **2**. Number of samples out of 30 exceeding the action level. Testing was completed in 2004. As per NJDEP Requirements additional monitoring will be conducted in 2007. **3**. Trihalomethanes & HAA's MCL is based on annual running average of quarterly samples, collected in the distribution system and reflects the results of our blended water supply. **4**. The UCMR contains a list of 11 compounds that are being tested. The data generated by the UCMR will be uses to evaluate and consider for possible new drinking water standards. Additional testing will be conducted in 2008. This data will help to ensure that future decisions on drinking water standards are based on sound science.

Source Water Assessment

The NJDEP has completed and issued the Source Water Assessment report and summary for this public water systems, which is available at www.state.nj.us/dep/swap or contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. The Borough also augments our water supply from two other sources as defined on page one of this report. Additional information on these contributory suppliers can be found at the same NJDEP web page.

Susceptibility Ratings for Fair Lawn Water Department 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.

The seven contaminant categories are defined at the bottom of this page. 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 - 16		**12**	**4**	**4**	**12**			**4**	**12**	**16**			**14**	**2**		**12**	**4**		**16**				**16**	
GUDI - 0																								
Surface water intakes - 0																								

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Pesticides: 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 chlordane.

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

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: 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: 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.

Health Facts

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)

Nitrates 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.

Additional Customer Information

The Safe Water Drinking 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 two of these types of contaminants, asbestos and synthetic organic chemicals. The Borough of Fair Lawn received these waivers from the NJDEP after conducting vulnerability analyses on our water system.

Este informe contiene información muy importante sobre su agua beber. Tradŭzcalo o hable con alguine que lo entienda bien.

SDWA Secondary Standards (Related to the aesthetic quality of drinking water)

Substance	EPA or NJ Guideline	UWNJ Average	PVWC Average	Fair Lawn Average	Range Average	Typical Source
Aluminum (mg/l)	0.2	0.11	ND	ND	ND – 0.11	Treatment process
Chloride (mg/l)	250	105	90	121	9-121	Natural mineral, road salt
Color (color units)	10 CU	3	ND	ND	ND - 3	Natural material
Hardness (as $CaCO_3$) (mg/l)	250	160	120	336	120-336	Natural mineral
Iron (mg/l)	0.3	0.016	ND	ND	ND – 0.016	Natural mineral
Manganese (mg/l)	0.05	ND	ND	ND	ND	Natural mineral
Odor (threshold odor #)	3	1	ND	ND	ND - 1	Natural characteristics
PH (units)	6.5-8.5	8.0	8.2	8.1	8.0-8.2	Treatment process
Sodium (mg/l)	50	57	89	26	26-89	Natural mineral
Sulfate (mg/l)	250	19	24	59	19-59	Natural mineral
Zinc (mg/l)	5	ND	ND	ND	ND	Natural mineral