## Conserve Water and Save Money

*Inside your home*

- Run dishwasher and washing machine only when full
- Repair faucet and toilet leaks
- Replace old fixtures with new water saving devices
- Keep water for drinking in the refrigerator

*Outdoors*

- Water the lawn and garden in the early morning to avoid evaporation
- Check that sprinklers don't leak and that they water the lawn and not the pavement
- Use mulch around plants and shrubs to reduce evaporation

## *Questions?*

For more information about this report, or for any questions regarding the quality of your drinking water, please contact Tracey Pierson, Water Quality/Lab Coordinator or Robert S. Mercurio, Production Superintendent, at (203) 966-1473.

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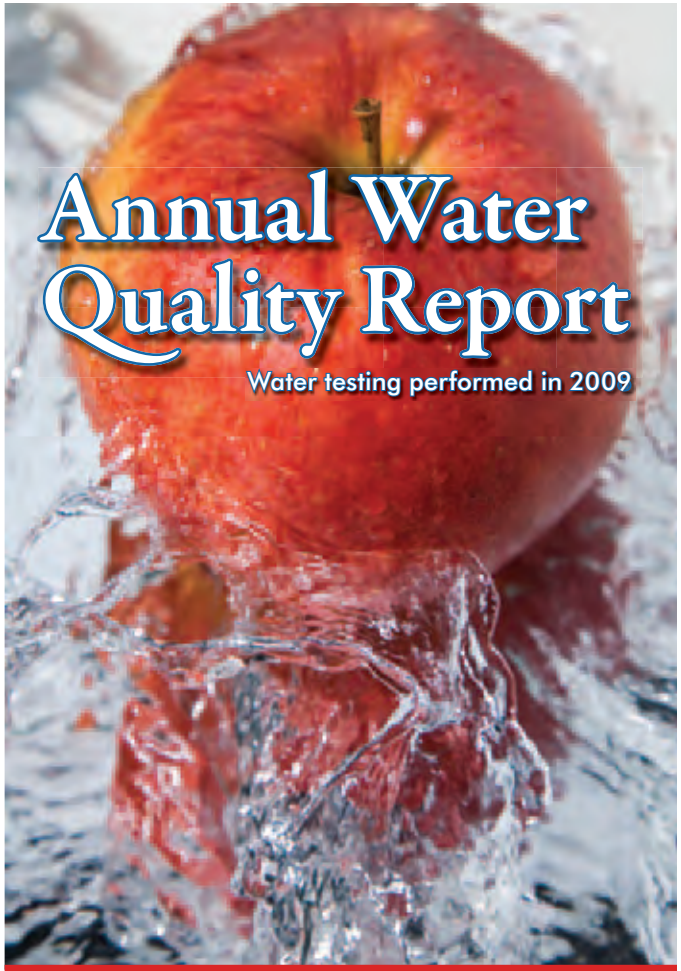
First Taxing District Water Department
12 New Canaan Avenue
Norwalk, CT 06851

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



# Annual Water Quality Report

Water testing performed in 2009

## First Taxing District Water Department

*Commissioners*
Ernestine K. Santaniello, *Chairperson*
Robert A. Corbo
Frank N. Zullo, Esq.

*District Treasurer*
Marija V. Bryant

*General Manager*
Dominick M. Di Gangi, P.E.

*District Engineer*
George P. Fulton, P.E.

PWS ID#: 1030011

## *To our Customers and Electors:*

We are pleased to provide you with our Annual Water Quality Report which covers water testing performed during 2009. The First District's goal is to assure a safe and reliable supply of drinking water, and we are proud to announce that all of the tests have met or exceeded federal and state regulations.

We are continuing our program of capital improvement projects, which includes the constant upgrading of water mains and other facilities. We want you to know that we appreciate your confidence and will persist in our commitment to overall excellence and outstanding customer service.

We meet each month in our main office, 12 New Canaan Avenue, Norwalk. You may phone (203) 847-7387 for the times and dates of meetings. You should also feel free to contact us or the department's General Manager, Dominick M. Di Gangi, P.E., for additional information.

Sincerely,

Commissioners, First Taxing District

Robert A. Corbo

Ernestine K. Santaniello

Frank N. Zullo, Esq.

## Water Sources and How We Protect Them

Protecting the water supply at its source is the first step in achieving the water department's goal of providing safe drinking water to its customers. The District's reservoirs, located in Lewisboro, NY and New Canaan, CT hold approximately one billion gallons of water. The source of the water is the watershed land covering 10 square miles in New Canaan, Ridgefield and Wilton, CT and Lewisboro, NY. Rainfall and snowmelt from this land are channeled into soils, groundwater, creeks and streams and then into our reservoirs. Disturbance or pollution on watershed land can directly affect the drinking water reservoirs.

Measures to protect the watershed land and reservoirs include daily patrolling of the area. We maintain open communications with both the local police and fire departments in our watershed towns. We also work closely with local government where attention is focused on new land development in our watershed. When necessary we actively oppose unsuitable development. Each year as part of our sanitary survey requirement, our water treatment operators visit each property on the watershed. While at the property, the operators pay particular attention to septic system maintenance and any other potentially harmful activity that could affect water quality.

Procedures to protect our groundwater sources in the Kellogg-Deering well field continue through the Aquifer Protection Area Regulations. The Norwalk Zoning Commission has used its authority to register and regulate businesses that pose a potential risk to our drinking water.

### *How You Can Help*

- Maintain your septic system
- Use pesticides and herbicides *sparingly* or use organic products
- Dispose of oil, paint and chemicals properly
- Take advantage of hazardous waste days – free to Norwalk residents

*Dominic Cocchia, distribution system operator, flushes a water main on Mohawk Drive.*

Each spring and summer our operators conduct a water main flushing program. Flushing the water mains allows for the removal of accumulated mineral sediments which could cause discolored water. These efforts are an important step in improving the water quality.

## How FDWD Water Is Treated and Purified

The surface water treatment process consists of a series of steps. Raw water drawn from the reservoirs is sent to a mixing tank where a coagulant is added. This causes small particles to adhere to one another and makes them heavy enough to settle and be removed. The water is then filtered through layers of coal and sand. Clear water emerges as the smaller, suspended particles are removed by the filters. Chlorine is added to disinfect any bacteria that may still be present. We carefully monitor the amount of chlorine, adding the lowest quantity necessary to ensure the safety of your water without compromising the taste. Finally, chemicals are added to adjust the acidity and protect the water pipes, and fluoride is added to prevent tooth decay. At the well field, the groundwater is filtered naturally by sand and gravel. The clean water is then treated in a similar manner as the surface water with the addition of aeration of the water supply.

# Sampling Results

During the past year the FDWD staff has taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic or synthetic organic contaminants. These samples were taken at the reservoirs, the treatment plant, and the well field and also at representative sample sites around the distribution system. The table below shows only those regulated substances that were detected in the treated water. All of the substances found meet all state and federal standards. Regulation requires that some substances are monitored less than once per year. The year sampled is noted in the table.

| Regulated Substances | | | | Well Water | | Surface Water | | | |
|---|---|---|---|---|---|---|---|---|---|
| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | MCL [MRDL] | MCLG [MRDLG] | HIGHEST AMOUNT DETECTED | RANGE LOW-HIGH | HIGHEST AMOUNT DETECTED | RANGE LOW-HIGH | VIOLATION | TYPICAL SOURCE |
| Chlorine (ppm) | 2009 | [4] | [4] | 1.09 | 0.40-1.09 | 1.44 | 0.72-1.44 | No | Water additive used to control microbes |
| Fluoride[1] (ppm) | 2009 | 4 | 4 | 0.89 | 0.82-0.89 | 0.89 | 0.83-0.89 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate (ppm) | 2009 | 10 | 10 | 2.73 | NA | 0.38 | NA | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Total Organic Carbon (% removal)[2] | 2009 | TT | NA | NA | NA | 100% of required removal | NA | No | Naturally present in the environment |
| Turbidity[3] (NTU) | 2009 | TT | NA | NA | NA | 0.11 | .05-0.11 | No | Soil runoff |
| Turbidity (Lowest monthly percent of samples meeting limit) | 2009 | TT | NA | NA | NA | 100 | NA | No | Soil runoff |

| Distribution System | | | | | | | |
|---|---|---|---|---|---|---|---|
| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | MCL [MRDL] | MCLG [MRDLG] | HIGHEST FOUR QUARTER RUNNING ANNUAL AVERAGE | RANGE OF INDIVIDUAL SITES LOW-HIGH | VIOLATION | TYPICAL SOURCE |
| HAAs [Haloacetic Acids] (ppb) | 2009 | 60 | NA | 12.9 | 3.0-27.1 | No | By-product of drinking water disinfection |
| TTHMs [Total Trihalomethanes] (ppb) | 2009 | 80 | NA | 31.6 | 7.0-70.0 | No | |

| Tap water samples were collected from sample sites throughout community | | | | | | | |
|---|---|---|---|---|---|---|---|
| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | ACTION LEVEL | MCLG | AMOUNT DETECTED 90TH PERCENTILE | SITES ABOVE ACTION LEVEL | VIOLATION | TYPICAL SOURCE |
| Copper[4] (ppm) | 2008 | 1.3 | 1.3 | 0.16 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | 2008 | 15 | 0 | 14 | 3 | No | |

| Unregulated Substances | | Well Water | | Surface Water | | |
|---|---|---|---|---|---|---|
| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | HIGHEST AMOUNT DETECTED | RANGE LOW-HIGH | HIGHEST AMOUNT DETECTED | RANGE LOW-HIGH | TYPICAL SOURCE |
| Sodium[5] (ppm) | 2009 | 35.2 | 25.0-35.2 | 35.3 | 25.5-35.3 | Erosion of natural deposits; Road salt; Residual of the drinking water treatment process |

**Unregulated Contaminant Monitoring Regulation (UCMR) 2** monitoring was completed in 2009. This is a list of 10 selected contaminants which do not yet have a drinking water standard set by EPA. The purpose of the monitoring is to help the EPA decide whether the contaminants should have a standard. We did not detect any of these contaminants in either our surface or groundwater supplies. The monitoring results are available for your interest by calling Tracey Pierson at 203-966-1473.

1 Highest amount detected and ranges are monthly averages.

2 The required removal for our system varied between 35% and 45%.

3 Turbidity is a measure of the clarity of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

4 Tap water samples were collected for lead and copper analyses from 34 homes throughout the service area. Although the lead detected was not over the Action Level (AL) at the 90th percentile, there were three homes that had lead levels over the AL. Upon further testing it was found that the likely cause of the elevated lead levels was the faucets in the customer's homes.

5 There is no federal MCL for sodium but Connecticut has established a notification level of 28 mg/L. The reason for this is so that consumers on a sodium restricted diet will be aware of the contribution of sodium from the drinking water. For the normal population this level of sodium is actually very low. When the highest amount of sodium detected last year (35.3 mg/l) is calculated per 8 oz. serving, it is only 8.4 milligrams.

## Definitions

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

**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.

**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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**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).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

## Substances That Might Be In Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits 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. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Lead and Drinking Water

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 First District Water Department 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 www.epa.gov/safewater/lead.

## Health Information

*(This statement is prescribed by the US Environmental Protection Agency for your information)*

Sources of lead in drinking water include corrosion of household plumbing system and 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 such water over many years could develop kidney problems or high blood pressure.

Sources of copper in drinking water include corrosion of household plumbing system, erosion of natural deposits and leaching from wood preservatives. 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.

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

## Source Water Assessment

A source water assessment performed by the State of Connecticut Department of Public Health indicated that the surface water source has a moderate susceptibility and the groundwater source a high susceptibility to potential sources of contamination. This does not imply poor water quality but does indicate the need for protection. The completed assessment report can be found on the Department of Public Health Web site at http://www.dir.ct.gov/dph/Water/SWAP/Community/CT1030011.pdf . Additional source water assessment information can be found at the Environmental Protection Agency Web site at http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Assessment