



# Annual Water Quality Report

*Water testing performed in 2004.*

First Taxing District  
Water Department



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PWS ID#: CT1030011

## Continuing Our Commitment

The First Taxing District Water Department is pleased to present our annual water quality report. This edition covers all testing completed from January through December 2004. Last year as in the past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health



standards. We are proud to inform you that through our continued efforts our system has not violated a Maximum Contaminant Level or any other water quality standard. We are committed to delivering the best quality drinking water to you. Therefore, we continue to meet the challenges of source water protection, water conservation, and community education while serving the needs of all of our customers.

For more information about this report, or for any questions relating to your drinking water, please call Tracey Pierson, Water Quality Supervisor, or Robert S. Mercurio, Production Superintendent, at (203) 966-1473.

## Water Source

First Taxing District customers enjoy water that is supplied from both surface and groundwater sources. The water treatment plant in New Canaan draws water from four reservoirs (Scotts, Browns, John Milne, and Grupes). They hold approximately 1 billion gallons of water when full. An additional water source is the Kellogg-Deering Well Field located in Norwalk, which blends with and supplements the surface water when needed.



## Protecting Our Watershed

A watershed is comprised of the land from which water drains (across or under) on its way to a stream, river, or lake.

Since this water will eventually become drinking water it is important that we protect it. Our principle water supply is developed in four reservoirs along the main stem of the Silvermine River. The watershed covers 10 square miles through parts of New Canaan, Ridgefield, and Wilton, CT; and Lewisboro, NY. It is mostly residential with no significant potential sources of contamination.



Our water treatment operators conduct a watershed survey each spring and summer. They visit each home and try to speak with each homeowner regarding their property and the water they border. We emphasize the importance of maintaining septic systems, of handling pool and water softener discharges, of using pesticides and herbicides sparingly, and of properly disposing of animal wastes and any oil, gas, or chemical discharges or spills. We distribute a pamphlet that discusses these topics and the unique responsibility that homeowners have to protect our valuable resource.

Other measures taken to protect the watershed include monitoring water quality in the streams leading to our reservoirs, actively opposing unsuitable development, and inspecting and monitoring new development sites. The watershed is patrolled seven days per week. We have an emergency plan in place involving mutual contact with local fire and police departments as well as our state and U.S. EPA representatives should an incident occur that might affect the water supply.

The State of Connecticut Department of Public Health has performed an assessment of our drinking water sources. According to this report, our reservoir system has no point source pollution discharge in the watershed area. The Overall Susceptibility Rating (which indicates susceptibility to potential sources of contamination) is moderate. The completed assessment report is available for access on the Drinking Water Division's Web site at [www.dph.state.ct.us/BRS/Water/DWD.htm](http://www.dph.state.ct.us/BRS/Water/DWD.htm).

## Consumer F.A.Q.s

### What makes water "hard"?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be "hard." Hard water does not dissolve soap readily, so making a lather for washing and cleaning is difficult (hard). Conversely, water containing little calcium or magnesium is called "soft" water. The First Taxing District's water has moderate hardness in the range of 50 to 75 mg/L, or 2.9 to 4.3 grains per gallon. (Some dishwasher manuals will specify hardness levels as grains per gallon.)

### My water looks discolored; what should I do?

The main causes of discolored water are 1) a water main break, 2) water department workers flushing a hydrant, and 3) vibrations caused by construction. Flushing of water mains will occur in the spring and summer months and the flushing schedule will be posted in the local newspaper. If the cause of your dirty water is not obvious, call the water department. Once the reason has been identified and the disruption of the water ceases, run your cold-water tap until it clears.

### How is my water treated?

The water treatment process consists of a series of steps. First, raw water from our reservoirs is sent to a mixing tank where a coagulant (polyaluminum chloride) is added. This substance causes small particles to adhere to one another (called floc), making them heavy enough to settle onto large plates in a basin where the sediment is removed. The water is then filtered through layers of anthracite media and sand, where smaller suspended particles are removed and clear water emerges.

After we treat and filter the raw water to make it clear and potable, substances must be added to the water so that it stays clean and healthy. Sodium hypochlorite is added as a precaution to inactivate any bacteria that may still be present. We carefully monitor the amount of residual chlorine from this process and add the lowest quantity necessary to protect the safety of your water without compromising taste. Sodium hydroxide (to adjust pH and alkalinity) is added along with a corrosion inhibitor to protect distribution system and customer pipes. Finally, fluoride (to prevent tooth decay) is added before the water is pumped to water towers and into your home or business.

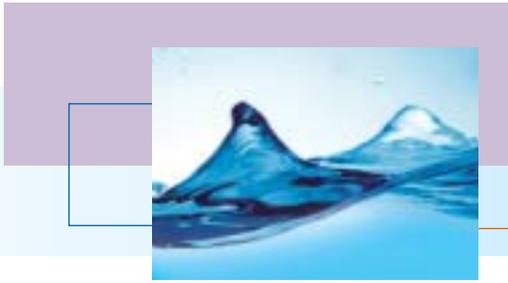
## Community Participation

**ALL FIRST TAXING DISTRICT CUSTOMERS ARE INVITED TO LEARN MORE ABOUT THE WATER UTILITY BY ATTENDING OUR MONTHLY MEETINGS. THE BOARD OF COMMISSIONERS MEETS THE FIRST THURSDAY OF EACH MONTH IN OUR MAIN OFFICE ON 12 NEW CANAAN AVENUE, NORWALK. THE ANNUAL MEETING IS THE THIRD WEDNESDAY OF NOVEMBER. PLEASE CALL (203) 847-7387 FOR THE TIME AND DATE OF THE NEXT SCHEDULED MEETING. YOU MAY ALSO CONTACT THE GENERAL SUPERVISOR, FRANCO CHIEFFALO, OR THE BOARD OF COMMISSIONERS AT THE ADDRESS ABOVE. BOARD OF COMMISSIONERS: ERNESTINE K. SANTANIELLO, ROBERT A. CORBO, KENNETH J. SLAPIN.**



## Special Health Information

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.



## Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, 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 can acquire 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 which 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.

## Table 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 contamination.

**NA:** Not applicable

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.

**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).

**Removal ratio:** A ratio between the percentage of Total Organic Carbon actually removed to the percentage of Total Organic Carbon required to be removed.

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

## Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but also can save you money by reducing the cost of water treatment and therefore your water bill. Here are a few suggestions:

### 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.
- Run the dishwasher only when full.

### Outdoors:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at [www.epa.gov/safewater/publicoutreach/index.html](http://www.epa.gov/safewater/publicoutreach/index.html).

## Sampling Results

The First Taxing District's water is continually monitored. It is tested as it leaves the treatment plant, and samples are collected each week throughout the distribution system. During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. All of the substances listed here are under the Maximum Contaminant Level (MCL). The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES				Surface Water		Well Water		VIOLATION	TYPICAL SOURCE
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	HIGHEST AMOUNT DETECTED	RANGE LOW HIGH	HIGHEST AMOUNT DETECTED	RANGE LOW HIGH		
<b>Chlorine</b> (ppm)	2004	MRDL =4	MRDLG =4	1.53	0.79-1.53	1.4	0.23-1.4	No	Water additive used to control microbes
<b>Fluoride</b> <sup>1</sup> (ppm)	2004	4	4	0.90	0.83-0.90	0.93	0.82-0.93	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Nitrate</b> (ppm)	2004	10	10	0.50	NA	4.86	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Total Organic Carbon</b> <sup>2</sup> (Removal ratio)	2004	TT	NA	1.12	1.04-1.23	NA	NA	No	Naturally present in the environment
<b>Turbidity</b> <sup>3</sup> (NTU)	2004	TT	NA	0.22	0.05-0.22	NA	NA	No	Soil runoff

### Distribution System

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	HIGHEST FOUR QUARTER RUNNING ANNUAL AVERAGE	RANGE OF INDIVIDUAL SITES	VIOLATION	TYPICAL SOURCE
<b>Haloacetic Acids (HAAs)</b> (ppb)	2004	60	NA	25.0	3.5-32.5	No	By-product of drinking water disinfection
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2004	80	NA	30.8	10.9-54.4	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper from 37 homes throughout the service area (*Lead was not detected at the 90th percentile*)<sup>4</sup>

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2002	1.3	1.3	0.122	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

### UNREGULATED SUBSTANCES

		Well Water		
SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW HIGH	TYPICAL SOURCE
<b>Sodium</b> <sup>5</sup> (ppm)	2004	30.5	NA	Erosion of natural deposits; Road salt; Residual of drinking water treatment process

<sup>1</sup> Highest amount detected and range are monthly averages.

<sup>2</sup> The amount detected represents the running annual average of the ratio of the percent of TOC removed to the percent of required removal (% removed/% required).

<sup>3</sup> Turbidity is a measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.

<sup>4</sup> 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. 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 water containing lead in excess of the Action Level over many years could develop kidney problems or high blood pressure.

<sup>5</sup> There is no MCL for sodium but Connecticut has a notification level of 28 ppm (mg/L) so that customers on sodium-restricted diets will be informed of the level. The well water is always blended with lower sodium surface water so actual sodium consumption will be lower. Foods and drinks that are allowed by the FDA to carry a "very low sodium" label have 30 mg/L of sodium or less.