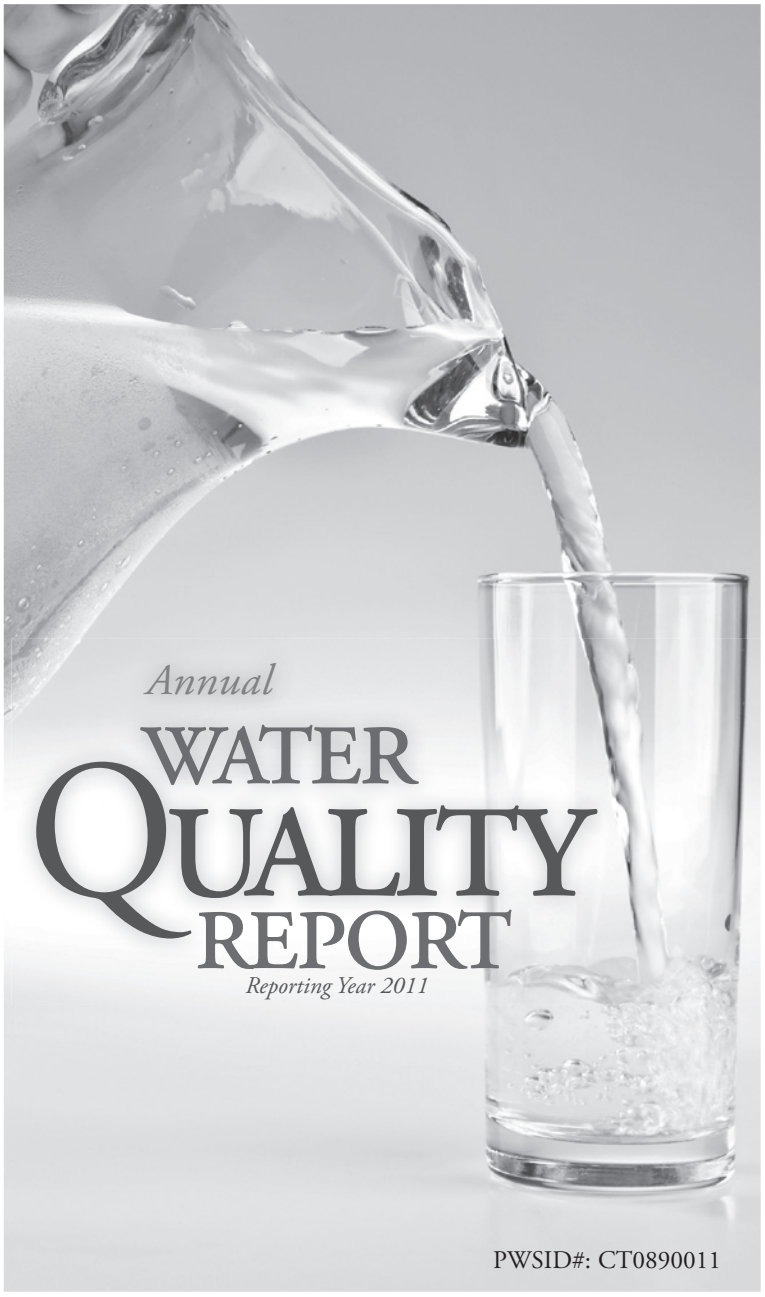

This report was prepared by:
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Ta broszura zawiera wazne informacje dotyczace jakosci wody do picia. Przetlumacz zawartosc tej broszury lub skontaktuj sie z osoba ktora pomoze ci w zrozumieniu zawartych informacji.

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

Meeting the Challenge

Our new Mayor, the Honorable Timothy O'Brien, and the Board of Water Commissioners are proud to present the City of New Britain annual water quality report. This report covers all testing performed on the water supplied by the New Britain Water Department between January 1 and December 31, 2011.

Over the years the residents of New Britain have enjoyed some of the finest drinking water produced in New England. The staff and management at the water department have dedicated themselves to producing drinking water that meets or surpasses all state and federal standards. The department's management and staff are continually striving to deliver the best quality drinking water for all its customers. To meet these ends, the water department is constantly seeking to improve its operations and plans, not only to meet today's needs but also to protect the water sources for use by future generations of citizens. As new challenges to drinking water safety emerge, the water department staff will remain vigilant in serving the needs of all its customers.

For more information about this report, or for any questions relating to your drinking water, call Ray Esponda, P.E., Superintendent of Water Quality, at (860) 826-3532.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Board of Water Commissioners meets the first Tuesday after the first Wednesday of each month, beginning at 7 pm, at 50 Caretaker Road, New Britain, CT.

New Britain's Water Sources

The New Britain Water Department has some of the best sources of water in this region of the country. The department receives water from eight surface water reservoirs. These reservoirs are the Shuttle Meadow, Wasel, Whigville, Wolcott, White Bridge, Hart Ponds, and Nepaugh. Together these sources provide over 3 billion gallons of water a year. Additionally, the department has two well fields, the upper and lower White Bridge well fields. The water department also leases the Town of Southington's Patton Brook Well.

About Our Violation

During one weekend day in the month of August 2011, the staff of the water treatment plant was unable to accurately measure the level of fluoride in the water being sent to the distribution system. This measurement could not be performed due to a breakdown of the water department's fluoride ion meter; additionally, the back-up unit was also inoperable. To ensure that this does not occur in the future, the water department has installed an on-line monitor that measures the level of fluoride continuously. Additionally, the water department has purchased new state-of-the-art meters and trained its staff in an alternative method of measuring fluoride levels. The measured amount of fluoride used during this event was consistent with normal operations, and missing this monitoring requirement had no impact on public health. Additional steps were taken to ensure that this monitoring violation will not be repeated.

Substances That Could Be in 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 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 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.

Important Health Information

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

Sources of copper in drinking water include corrosion of household plumbing systems, 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.

Lead in Home Plumbing

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. We are 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.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Turn off the tap when brushing your teeth.

Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.

Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses about 100 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.h2oconserve.org or visit www.waterfootprint.org to see how the water footprints of other nations compare.

Source Water

A water assessment of the New Britain source water was completed by the Department of Public Health, Drinking Water Section. The assessment report can be found on the Department of Public Health's Web site: http://www.dir.ct.gov/dph/Water/SWAP/Community/CT0890011.pdf.

The assessment found that one of our water sources has a high susceptibility to potential sources of contamination because it is located in a urban setting. Even though nothing has ever been detected there, the department is required to make this information public.

The Water Treatment Process

The New Britain Water Department has one of the most advanced treatment plants in the state and uses a multi-barrier approach to provide safe drinking water to its customers. Water is drawn from protected reservoirs and disinfected by ozone gas, one of the most powerful disinfectants available. The water is then treated with polyaluminum-chloride, which removes particles from the water. The water is then filtered through granular active carbon filters, which utilizes biological active filter beds. Finally, the water is treated with a second disinfectant, chlorine, to keep the distribution system disinfected, fluoride to promote dental health, and calcium carbonate to inhibit pipe corrosion.

Source Water Protection

The New Britain Water Department takes pride in having some of the best water sources in New England, and to ensure that they retain their high quality, the water department patrols and inspects its watersheds regularly while testing the water for potential contamination.

Sampling Results

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. The state allows 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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2011	2	2	0.014	0.014–0.014	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2011	[4]	[4]	0.6	0.34–0.6	No	Water additive used to control microbes
Fluoride (ppm)	2011	4	4	0.94	0.83–1.16	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2011	60	NA	8	3–13	No	By-product of drinking water disinfection
Nitrate (ppm)	2011	10	10	0.18	0.18–0.18	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2011	80	NA	31	9.8–67.2	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2011	TT	NA	1.6	1.2–1.6	No	Naturally present in the environment
Turbidity[1] (NTU)	2011	TT	NA	0.39	0.02–0.39	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2011	TT	NA	99.44	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2011	1.3	1.3	0.0135	0/45	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2011	15	0	6.5	2/45	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2011	250	NA	16	16–16	No	Runoff/leaching from natural deposits
pH[2] (Units)	2011	6.5–8.5	NA	9.6	9.18–9.81	No	Naturally occurring
Sulfate (ppm)	2011	250	NA	6.7	6.7–6.7	No	Runoff/leaching from natural deposits; Industrial wastes

[1] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

[2] The New Britain Water Department is required by the CT DPH to maintain a pH level of 9.3-10 pH units to optimize corrosion control.

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.