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CITY OF
NEW BRITAIN
WATER
DEPARTMENT

ANNUAL WATER
QUALITY REPORT

Water testing performed in 2004

PWS ID#: CT0890011

Continuing Our Commitment



Mayor Timothy T. Stewart

Once again Mayor Timothy T. Stewart and the Board of Water Commissioners proudly present our annual water quality report. This edition covers all testing completed from January through December 2004. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary.

As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

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

Source Water Assessment

The State of Connecticut's Department of Public Health has performed an assessment of our drinking water sources. The complete assessment report is available for access on the Drinking Water Division's Web site at www.dph.state.ct.us/brs/water/dwd.htm.

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 P.M. AT 50 CARETAKER ROAD, NEW BRITAIN, CT. AS A REMINDER, OUR BILLING OFFICE IS NOW LOCATED ON THE FIRST FLOOR OF CITY HALL, 27 WEST MAIN STREET. OFFICE HOURS ARE MONDAY THROUGH FRIDAY, 8:15 A.M. TO 4:00 P.M.

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 your water bill. Here are a few suggestions:

Conservation measures you can use 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.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- 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.

PLEASE SHARE THIS INFORMATION WITH ALL OTHER PEOPLE WHO DRINK THIS WATER, ESPECIALLY THOSE WHO MAY NOT HAVE RECEIVED THIS NOTICE DIRECTLY (FOR EXAMPLE, PEOPLE IN NURSING HOMES, SCHOOLS AND BUSINESSES). YOU CAN DO THIS BY POSTING THIS NOTICE IN A PUBLIC PLACE OR DISTRIBUTING COPIES BY HAND OR MAIL.

Working Hard For You

The New Britain Water Department (NBWD) has completed the building of its new water treatment plant. The plant is a state-of-the-art facility that uses many new technological advances in water treatment. The plant is the first in the state of Connecticut to utilize ozone in its treatment processes; additionally, it utilizes deep-bed granular-activated carbon filters as well as a number other new technologies. Since the plant began operating in May 2004, it has met or exceeded all water quality standards mandated by the state and federal government.

The water department was under an administrative order from the U.S. Environmental Protection Agency (EPA) to begin continuous monitoring of individual filter turbidity levels. This requirement is being met at the new plant; unfortunately, the old plant was built many years before this requirement became mandated. Because the old plant could not easily be retrofitted and the new plant was already being built, the U.S. EPA allowed the NBWD to operate the old plant under the following conditions: The NBWD was to take immediate action in the event that turbidity levels rose above the historic operating parameters. These actions included the immediate manual testing of each filter's turbidity level to determine which filter was not meeting the turbidity standard and the completion of a comprehensive evaluation of the filter's performance. Additionally, the amount of chlorine disinfectant in the water was increased.

Due to these factors, the NBWD has not met the requirement to monitor the turbidity levels of the water produced at each of its individual filters. Therefore, the NBWD was in violation of this monitoring requirement from January 1, 2004, to May 12, 2004, and cannot be sure of the water quality produced at each individual filter during that time. The purpose of this regulation is to protect public health from microbial contaminants, such as *Cryptosporidium*. The NBWD has been in full compliance with this monitoring requirement since May 12, 2004. The NBWD has met the U.S. EPA mandated turbidity standard for combined filter effluent and did continuously monitor it during this period.

At present there is nothing our customer need to do. If you would like further information, please contact Gilbert J. Bligh, Director, at (860) 826-3535 or the New Britain Water Department, 50 Caretaker Road, New Britain, CT 06052.



Where Does My Water Come From?

The customers of the New Britain Water Department are fortunate because they enjoy an abundant water supply from eight sources. The Shuttle Meadow Water Treatment Plant draws water from the Shuttle Meadow, Wasel, Whigville, Upper and Lower Hart's, Neapuag and White Bridge Reservoirs, which hold about 2.8 billion gallons of water. The department also has two well fields, the upper and lower White Bridge fields. Additionally, the department owns the Patton Brook well, which is leased to the Town of Southington. The Shuttle Meadow Water Treatment Plant is a newly constructed state of the art facility. Put on line in May 2004, it is the first treatment facility in the state of Connecticut to use advanced disinfection and filtration processes. The new plant will provide the department's customers with approximately 3.5 billion gallons of clean and safe drinking water every year.

Our water supply is part of the Middle Connecticut Watershed, which covers an area of roughly 1,000 square miles. Most of the watershed is covered by forest, with agricultural and urban development accounting for less than one-third of watershed use. To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed at <http://www.epa.gov/surf>.

Lead and Copper in Drinking Water

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.

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.

Major sources of lead in drinking water include corrosion of household plumbing systems and erosion of natural deposits. Major sources of copper in drinking water include corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives.

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 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 which 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.

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

ND: Not detected

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).

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

Source Water Protection

Source water is untreated water from streams, rivers, lakes, or underground aquifers that is used to supply public drinking water. Preventing drinking water contamination at the source makes good public health sense, good economic sense, and good environmental sense. You can be aware of the challenges of keeping drinking water safe and take an active role in protecting drinking water. There are lots of ways that you can get involved in drinking water protection activities to prevent the contamination of the groundwater source. Dispose properly of household chemicals, help clean up the watershed that is the source of your community's water, and attend public meetings to ensure that the community's need for safe drinking water is considered in making decisions about land use. Contact us at (860) 826-3536 for more information on source water protection, or contact the U.S. EPA at (800) 426-4791. You may also find information on the U.S. EPA's Web site at www.epa.gov/safewater/protect.html.

Important 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.



REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW HIGH	VIOLATION	TYPICAL SOURCE
Cadmium (ppb)	2004	5	5	0.6	NA	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chlorine (ppm)	2004	(4)	(4)	1	0.28-1	No	Water additive used to control microbes
Fluoride (ppm)	2004	4	4	1.2	0.8-1.2	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids (HAAs) (ppb)	2004	60	NA	8.2	1.5-13.3	No	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2004	TT	NA	1.78	0-1.78	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	19.8	8-32	No	By-product of drinking water disinfection
Turbidity ¹ (NTU)	2004	TT	NA	0.34	0.02-0.34	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 33 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	1.3	0.093	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead ² (ppb)	2002	15	0	11.5	3	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

UNREGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2004	7.1	2.6-7.1	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2004	2.7	ND-2.7	By-product of drinking water disinfection
Chloroform (ppb)	2004	32	3.5-32	By-product of drinking water disinfection
Sulfate (ppm)	2004	6.29	NA	Naturally present in the environment

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, a minimum of 99.46% of all samples taken to measure turbidity met water quality standards.

² Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791.