

CITY OF NEW BRUNSWICK

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THE CITY OF NEW BRUNSWICK
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IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER City of New Brunswick Water Department did not meet certain treatment and monitoring requirements

During the period of January 2010 to May 2013, the New Brunswick Water Department violated numerous treatment and monitoring requirements of the Federal and State Safe Drinking Water Act Regulations. While the New Jersey Department of Environmental Protection (NJDEP) and the City of New Brunswick have no direct evidence that public health was impacted, the violations are considered to be serious because they had the potential to expose the public to disease-causing microorganisms.

As a result of investigations performed by the NJDEP and the US Environmental Protection Agency (USEPA), it was determined that between January 2010 and June 2013 New Brunswick repeatedly violated national drinking water quality standards for turbidity, total coliforms, and residual disinfectant levels. New Brunswick failed to provide the required information or submitted false information in reports to the NJDEP and failed to issue mandatory public health and safety notices when these violations occurred.

Although this is currently not a public health emergency, we are obligated under the law to inform you of these violations. We would also like to provide information on what we have done and are doing to correct this situation. In addition, we want to assure you that the New Brunswick Water Department is currently in compliance with all Federal and State Safe Drinking Water Act requirements.

WHAT HAPPENED?

We are required to monitor your water for turbidity (cloudiness). This is an indicator of whether we are effectively filtering the water supply. Water samples taken on March 14, 2010; March 1, 2011; December 15, 2011; December 16, 2011; October 2, 2012, and February 9, 2013 showed elevated values for turbidity above the allowable level of 1 turbidity unit. Because of these high levels of turbidity, there was an increased chance that the water might have contained disease-causing organisms. We also did not notify our customers or the NJDEP as was required during each of these incidents. This notification was to have been issued to all customers within 24 hours of the incident and would have instructed customers to boil their water before use.

In addition, no more than 5% of turbidity samples may exceed 0.3 turbidity units per month. In December 2011, 9.1% of turbidity measurements exceeded 0.3 turbidity units, and in January 2012, 6% of turbidity measurements were over 0.3 turbidity units. The persistence of turbidity levels over the standard is of concern. Because of this high level of turbidity, there was an increased chance that the water may have contained disease-causing organisms during this time. Normal turbidity units for our plant are now in the range of 0.02 to 0.3 turbidity units. We did not notify our customers or the NJDEP as was required during each of these two months. This notification was required within 30 days of the end of the month. We are also required to continuously monitor for turbidity for the combined flow of all individual filters but instead performed hourly monitoring. We did not report this to NJDEP or our customers as required.

City of New Brunswick
Public Water System ID# NJ1214001
Date Distributed: November 27, 2013.

This document contains important information about your drinking water.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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

For more information, please contact Frank J. Marascia, Director of the Water Utility, at 732-745-5243 or fmarascia@cityofnewbrunswick.org.

New Brunswick Water Department was also required to continuously monitor turbidity levels at each of the individual filters in the plant. We failed to do this for some of the filters, and either conducted hourly readings (from January 2010 to June 2012) or no readings of individual filters (from July 2012 to May 2013). In these instances, we provided false information to the NJDEP that readings were done as required and that all turbidity levels were below levels of concern.

In order to ensure proper disinfection, water in the treatment plant must be in contact with enough chlorine or a similar disinfectant for a minimum amount of time. For significant periods of time, including the periods of December 3-31, 2010; February 1-19, 2011; November 26-30, 2012; and March 1-13, 2013, we did not provide the minimum required amount of disinfection. Although chlorine quickly kills most bacteria, it is less effective against organisms such as viruses and parasites. For this reason, water needs to mix with chlorine for a longer time period to kill such organisms. The amount of time necessary, or the “contact time,” depends on the amount of disinfectant in the water and the temperature of the water. We also did not notify our customers or the NJDEP as was required during each of these time periods. This notification was required within 30 days of the end of the month.

We must routinely monitor for disinfectant residual in the distribution system. These measurements tell us whether we are effectively disinfecting the water supply. Disinfectant residual is the amount of chlorine or related disinfectant present in the pipes of the distribution system. If the amount of disinfectant residual is too low, organisms could grow in the pipes. During the months of July 2010 to December 2010, March 2011 to January 2012, and April 2012 to November 2012, disinfectant residual was undetectable in more than 5% of the samples. The standard is that disinfectant residual may be undetectable in no more than 5% of samples each month for two months in a row. We also failed to report this information as required to our customers and to the NJDEP.

We are required to maintain a chlorine residual of at least 0.2 milligrams per liter entering the distribution system. Water samples taken and recorded manually during March 2010, September 2010, November 2010, December 2010 and April 2011 indicated that the chlorine residual entering the distribution system fell below 0.2 mg/L for at least four hours on several occasions. We failed to report this to our customers and NJDEP. During this same time period, we were required to report to NJDEP the lowest measurement of chlorine entering the distribution system, which we did not do. During the period of January 2010 through May 2013, we were required to monitor the chlorine residual level continuously but only did it hourly, and did not report this to NJDEP and our customers as required. We are required to take at least 50 samples at our approved sampling plan locations each month to monitor for total coliforms and chlorine residual. Total coliform bacteria are generally not harmful themselves. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. During

October 2010, May 2011, June 2011, December 2011, March 2012, July 2012, August 2012 and November 2012 we analyzed less than 50 coliform samples during each month. We falsely reported that some collected samples were analyzed; when there was no record that the tests were done. We also failed to collect total coliform samples at sites which are representative of water throughout the distribution system during the months in question and failed to inform the NJDEP and our customers.

WHAT SHOULD I DO?

At this time, there is nothing you need to do. You do not need to boil your water or take other actions and do not need to use an alternate (e.g., bottled) water supply. The violations listed above have been addressed and are not currently ongoing.

WHAT DOES THIS MEAN?

Currently this is not an emergency. There were times when turbidity in your drinking water was unacceptably high. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease causing organisms, these organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. In addition, inadequate disinfection, as occurred with frequency, can further allow these organisms to survive in the delivered water.

Please be aware that you could also experience these symptoms from other causes not related to your drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

During the violation periods listed above, people with severely compromised immune systems, infants, and some elderly may have been at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA’s Safe Drinking Water Hotline at 1-800-426-4791.

WHAT IS BEING DONE?

The City of New Brunswick authorized a Comprehensive Performance Evaluation of the water treatment plant, including a review of technology, personnel, policies, procedures and budgetary matters. This Evaluation was performed by an independent consultant following the USEPA Guidance Manual protocol. The purpose of this evaluation was to identify ways to optimize performance of the treatment plant. Some of the recommendations of the evaluation have already been implemented, and the City will continue to make improvements over the next six months with the assistance of an independent consultant. The City has also restructured its water treatment staff organization to improve the supervision of treatment operations. The City’s licensed operator has been suspended. Since June 2013, New Brunswick has been performing all required water quality monitoring and sampling and all results have been within regulatory limits.

THE FOLLOWING IS A PRESS RELEASE ISSUED ON NOVEMBER 14, 2013 BY THE NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION.

DEP TAKES ENFORCEMENT ACTION AGAINST NEW BRUNSWICK WATER DEPARTMENT FOR SUBMITTING FALSE WATER DATA REPORTS. WATER SYSTEM IMPLEMENTED QUICK CORRECTIVE ACTIONS, NOW BEING MONITORED BY DEP AND EPA.

TRENTON – The Department of Environmental Protection (DEP) has filed Administrative Orders alleging the New Brunswick Water Department and its now-suspended licensed operator, Edward O’Rourke, repeatedly filed false reports for various water quality tests, submitted incorrectly calculated test results, and failed to notify the public when standards were not met, Commissioner Bob Martin announced today,

“New Jersey sets a high bar when it comes to monitoring the safety of drinking water,” Commissioner Martin said. “These are serious violations. It is critical that water providers maintain and provide accurate records of water system operations and water quality data. Any deviation from those standards is an unacceptable violation of the public trust. Maintaining the integrity of our potable water supply system is vital in New Jersey.”

The DEP, assisted by the federal Environmental Protection Agency (EPA), investigated water quality data kept by the New Brunswick Water Department and reported to the DEP. From early 2010 to spring 2013, New Brunswick Water Department repeatedly reported no problems with drinking water standards for key water criteria used to measure the potential for pathogens to be in the water supply. The DEP and EPA investigation, which looked closely at internal records kept by the water department, found that the system repeatedly violated these standards.

While the DEP has no direct evidence that public health was impacted, the violations are considered to be serious because they had the potential to expose the public to disease-causing microorganisms.

The utility serves some 50,000 people in New Brunswick, and also sells bulk water to the Milltown Water Department and Franklin Township, a community water system in Somerset County. The system draws water from two surface supplies, Weston’s Mill Pond and the Delaware and Raritan Canal. Water from these sources is treated at the Comstock Street Water Treatment Plant.

The investigation began in mid-June after the utility’s new director, Frank Marascia, reported a problem with water turbidity, a measure of the clarity of water as it enters the treatment process. While the issue was quickly resolved, the DEP and Marascia started looking more closely at internal records of water quality data, such as log books and chains of custody documents. These records are the basis of routine reports the utility is required to file with the DEP.

As part of its investigation, the DEP conducted numerous inspections of the treatment plant in June and July. The DEP and EPA also conducted a thorough review of New Brunswick’s monitoring data, analytical results, chain of custody forms, daily monitoring records and logbooks and forms the utility used to report results to the DEP.

As a result of its investigation, the DEP alleges that the New Brunswick Water Department:

- Submitted false results for turbidity, an important performance standard that measures water’s clarity and quality. The more turbid water is, the more likely it is to carry pathogens
- Used outdated charts that resulted in incorrect calculations for results of tests designed to show how effective disinfection was at destroying pathogens, namely Giardia lamblia. Giardia is used as an indicator of other potentially dangerous pathogens in the water;
- Submitted false information on tests for total coliforms, an indicator of bacteria that is used to determine if further testing is required for more serious pathogens such as E. coli.

In the related Administrative Order and Notice of Civil Penalty Assessment against O’Rourke, the DEP alleges that the licensed operator reported false results to the DEP on required forms and monthly reports, although he certified them as accurate. The DEP has suspended O’Rourke’s operating license and fined him \$17,000.

Once the reporting failures were discovered, the New Brunswick Water Department immediately implemented a number of steps to ensure the safety of its water supply, including adjusting disinfection, correcting calculations and establishing protocols to ensure samples are tested properly.

“We are very confident that the new management at the water department has taken all necessary and appropriate steps to correct these problems and that the city’s water is safe for consumption,” said DEP Assistant Commissioner for Compliance and Enforcement John Giordano. “The DEP, along with the EPA, will continue to work very closely with the city to ensure these problems never happen again.”

The utility has undergone a significant reorganization under Marascia and has brought on a new team of professionals to operate the plant. The city has also engaged a consulting firm to implement strategies to implement corrective strategies.

The DEP reserves the right to seek monetary penalties against the city. The city must also work with the DEP as it develops public notices for newspapers, radio and TV, as well as direct mailings to customers explaining the problem and corrective actions that have been taken. These notices are expected to be issued within several weeks.

For copies of the DEP orders, visit: <http://www.nj.gov/dep/docs/ao-new-brunswick.pdf> and <http://www.nj.gov/dep/docs/ao-edward-o-rourke.pdf>