

ANNUAL REPORT
ROCKAWAY BOROUGH WATER UTILITY
May 1, 2013
PWS #1434001

We are pleased to present to you this year's Annual Water Quality Report for the Borough of Rockaway Water Utility. The purpose of this report is to assure and inform you that the drinking water provided to you is safe, aesthetically pleasing, and reliably delivered. Our constant commitment is to supply you with a dependable, healthy source of drinking water. Last year as in years past, our tap water met all United States Environmental Protection Agency (EPA) and State of New Jersey primary water health standards.

The Borough's drinking water is obtained from three (3) operating wells (in addition to one backup well) that draw from the Quaternary aquifer in the Upper Rockaway Watershed. The water from the wells is processed through an aerator and a carbon filtration plant that produces drinking water of excellent quality as shown in the water test results.

Your drinking water is routinely monitored for the presence of contaminants. The water test results data shown are from the period of January 1, 2012 to December 31, 2012. Drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

The New Jersey Department of Environmental Protection (NJDEP) has completed and issued a Source Water Assessment Report and summary for the Borough of Rockaway public water system. A source water report is available at www.state.nj.us/dep/watersupply or by contacting the NJDEP Bureau of Safe Drinking Water at 609-292-5500. The Source Water Assessment performed on our single source determined the following:

| Sources | Pathogens | | | Nutrients | | | Pesticides | | | Volatile Organic Compounds | | | Inorganics | | | Radio-Nuclides | | | Radon | | | Disinfection Byproduct Precursors | | | |
|---------------------------|-----------|---|---|-----------|---|---|------------|---|---|----------------------------|---|---|------------|---|---|----------------|---|---|-------|---|---|-----------------------------------|---|---|--|
| | H | M | L | H | M | L | H | M | L | H | M | L | H | M | L | H | M | L | H | M | L | H | M | L | |
| Wells - 3 | | 3 | | 3 | | | | 1 | 2 | 3 | | | | 3 | | | 3 | | | 3 | | | 3 | | |
| GUDI- 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Surface Water Intakes - 0 | | | | | | | | | | | | | | | | | | | | | | | | | |

If a system is rated highly susceptible for a contamination category it does not mean a customer is or will be consuming contaminated water. The rating reflects the potential for the contamination of source water not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. The DEP found the following potential contaminated sources within the source water assessment areas for our sources.

- **Pathogens:** Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.
- **Nutrients:** Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.
- **Volatile Organic Compounds:** Man-made chemical used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.
- **Pesticides:** Man-made chemical used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.
- **Inorganics:** Mineral based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead and nitrate.

- **Radionuclides:** Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.
- **Radon:** Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.
- **Disinfection Byproduct Precursors:** A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example, leaves) present in surface water.

If you have any questions regarding the source water assessment report or summary, please contact the Bureau of Safe Drinking Water at www.state.nj.us/dep/watersupply or 609-292-5550.

If you have any questions about this report or about the operations of the Water Utility, please call Andrew DuJack, Licensed Water Operator, at (973) 627-2000. We want our customers to be fully informed about our Water Utility and if you want further information, please attend any of our regularly scheduled Mayor and Council meetings. These meetings are held at 7:30 PM on the second and fourth Thursday of each month at the Community Center on Union Street.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

WATER TEST RESULTS 2012

Shown in the table below are items that we detected in our water.

| SUBSTANCE | UNIT | MCL | MCLG | LEVEL DETECTED | POSSIBLE SOURCES IN DRINKING WATER |
|----------------|-------|----------|------|----------------|---------------------------------------------------------------------------------------------------------|
| Nitrate | Ppm | 10 | 10 | 1.83 | Runoff from fertilizer leachate, septic tanks, sewage plants and erosion of natural deposits. |
| Alpha Emitters | pCi/l | 15 | 0 | 2.8 ± 1.2 | Erosion of natural deposits. |
| Copper | Ppm | 1.3 (AL) | 1.3 | 0.19 | Corrosion of household plumbing systems. Erosion of natural deposits. Leaching from wood preservatives. |
| Lead | Ppb | 15 (AL) | 0 | 4 | Corrosion of household plumbing systems. Erosion of natural deposits. |
| Barium | Ppm | 2.0 | 2.0 | 0.020 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits. |
| Sulfate | Ppm | 250 | | 22 | Erosion of natural deposits. |

SECONDARY CONTAMINANTS:

| SUBSTANCE | VIOLATION (yes/no) | UNIT | RUL | LEVEL DETECTED | POSSIBLE SOURCES IN DRINKING WATER |
|-----------|--------------------|------|-----|----------------|----------------------------------------------------------------------------------------------------------------------------|
| Fluoride | No | Ppm | 2.0 | 0.11 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. |
| Sulfate | No | Ppm | 250 | 22 | Erosion of natural deposits. |
| Chloride | No | Ppm | 250 | 180 | Erosion of natural deposits. |
| Sodium | No | Ppm | 50 | 81.2 | Erosion of natural deposits. |
| Iron | No | Ppm | 0.3 | 0.25 | Erosion of natural deposits. |

Definitions for above charts:

Maximum Contaminant Level (MCL): 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.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known risk or expected risk to health. MCLGs allow for a margin of safety.

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

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

Parts Per Million (ppm) or Milligrams per liter (mg/l): One part per million corresponds to one second in twelve days or a single penny in \$10,000.

Parts Per Billion (ppb) or Micrograms per liter: One part per billion corresponds to one second in 32 years or a single penny in \$10,000,000.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Goal (MRDLG): 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.

Million Fibers/Liter (MFL)

Picouries Per Liter (pCi/l): A measure of radioactivity.

Recommended Upper Limit (RUL): Recommended maximum concentration of secondary contaminants. RUL's are recommendations, not mandates.

MCLs are set at very stringent levels. To understand the possible health effects described from any regulated contaminants, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one in a million chance of incurring any adverse health effect. The level of one part per million is the equivalent of one second of time in 12 days.

Rockaway Borough Water Department exceeded the Secondary Recommended Upper Limit (RUL) for sodium during 2012. The RUL for sodium is 50 mg/l and our water system detected sodium at a range of 70.6 to 81.2 mg/l, with an average of 74.7 mg/l. This is not an emergency, but as our customers, you have a right to know what happened and what is being done to correct the situation. For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the RUL might be of concern to individuals on sodium restricted diets. What should you do? There is nothing you need to do at this time. Quarterly sampling is being conducted and the levels monitored. 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.

Nitrate in drinking water at levels above the MCL10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause serious illness, shortness of breath, blue baby syndrome and death if left untreated. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your healthcare provider.

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. Rockaway Borough Water Utility 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 is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water system. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In addition to the substances noted in the above chart, the drinking water was also checked for Benzene, Carbon Tetrachloride, Dichlorobenzene, Dichloroethane, Dichloropropane, Ethylbenzene, Methylene chloride, Ether, Naphthalene, Styrene, Tetrachloroethane, Toluene, Trichlorobenzene, Trichloroethane, Vinyl chloride and Xylenes. None of those contaminants were detected in the system. During the water sampling monitoring period January 4, 2012 to December 5, 2012, a total of four water samples proved positive for total coliform. For each positive sample, the Borough collected three additional samples: one at the positive source and one on each side of the positive point. All

water samples were returned with negative results for total coliform, indicating that the water was safe to drink. The Borough's Water Department then took water samples from its ground water sources (three wells), which also returned with negative results for total coliform. Staff were instructed regarding sampling techniques that would prevent "false positives" which appears to have been the case. No further action is necessary. In addition, the Borough received a waiver from NJDEP through 2019 for asbestos monitoring.

Children may receive a slightly higher amount of a contaminant present in the water than do adults on a body weight basis because they may drink a greater amount of water per pound of body weight than do adults. For this reason, reproductive or developmental effects occur at lower levels than other health effects of concern. If there is insufficient toxicity information for a chemical (for example, lack of data on reproductive or developmental effects), an extra uncertainty factor may be incorporated into the calculation of the drinking water standard, thus making the standard more stringent, to account for additional uncertainties regarding these effects. In the cases of lead and nitrate, effects on infants and children are the health endpoints upon which the standards are based.

More information about contaminants and potential health affects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline at 1-800-426-4791.

Please be assured that we work diligently to provide quality drinking water to you and we are interested in your opinions and suggestions on enhancing the water system and improving customer service.

Rockaway Borough Water Utility