

Michael R. Bloomberg, Mayor Cas Holloway, Commissioner

# New York City 2010 Drinking Water Supply and Quality Report



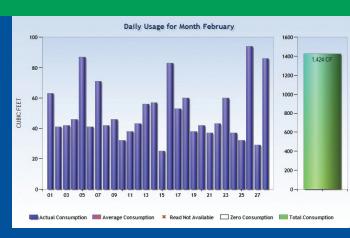
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Dear Friends:

New York City is fortunate to have some of the best drinking water in the world. The Department of Environmental Protection's mission is to maintain this tremendous natural resource, which is so important to public health and our City's long-term prosperity.

Doing so requires investing in and preserving our upstate reservoirs, as well as completing important capital projects to keep pace with our City's growing daily drinking water needs. In the past year, DEP has made significant progress on both of these fronts.

Thanks to a new 15-year Water Supply Permit for New York City, we will continue to buy land around our watershed to protect our drinking water at its source. DEP is also investing in the infrastructure we need—the new Croton Water Filtration Plant, and the Catskill/Delaware Ultraviolet Disinfection Facility under construction in Westchester—both of which will help to secure the delivery of high-quality water for the next century.

Together, all of these initiatives will ensure that our award-winning, world-class drinking water remains so for generations to come.

Sincerely,

Michael R. Bloomberg

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Mayor



Dear Friends,

New York City's drinking water is nationally recognized for its high quality and for good reason it tastes great. We perform more than 550,000 tests each year upstate and in the City so that nine million New Yorkers get the best drinking water from the most pristine sources. Today the Catskill and Delaware watersheds supply all of New York City's daily water supply needs, and these source waters are so pristine that they do not have to be filtered. Protecting New York City water at its source is the single most effective way to maintain that high quality, and initiatives like the Land Acquisition Program and our partnership with the Watershed Agricultural Council have resulted in the protection of roughly 116,000 acres of watershed lands. In fact, 2010 was our most successful year ever for this program: through purchases and agricultural easements, we protected approximately 12,000 acres (some 18.75 square miles) in the watershed.

All of this is made possible by DEP's nearly 6,000 employees, and the contractors and other stakeholders who help us get the job done every day. I am proud to present this report, and look forward to many more years of enjoying NYC Water-brought to you by DEP. To keep up with the latest projects and events, visit our website at www.nyc.gov/dep, or follow us on Facebook at www.facebook.com/nycwater. In the meantime, stay hydrated with NYC Water: it has zero calories, tastes great, costs about a penny a gallon, and because gravity does most of the work getting it to New York City, drinking NYC Water is good for the environment too.

All the best,

Caswell F. Holloway

Commissioner



# NEW YORK CITY 2010 DRINKING WATER SUPPLY AND QUALITY REPORT

The New York City Department of Environmental Protection (DEP) is pleased to present its 2010 Annual Water Supply and Quality Report. This report was prepared in accordance with the New York State Sanitary Code, and the National Primary Drinking Water Regulations, promulgated by the United States Environmental Protection Agency (EPA). The regulations require all drinking water suppliers to provide the public with an annual statement describing the sources and quality of its water supply.

### **New York City's Water Supply**

The New York City Water Supply System provides approximately one billion gallons of safe drinking water daily to more than eight million residents of New York City, to the millions of tourists and commuters who visit the city throughout the year, as well as about 120 million gallons a day to one million people living in Westchester, Putnam, Ulster, and Orange counties. In all, the New York City Water Supply System provides nearly half the population of New York State with high-quality drinking water.

## Source of New York City's Drinking Water

New York City's surface water is supplied from a network of 19 reservoirs and three controlled lakes in a nearly 2,000 square-mile watershed, roughly the size of Delaware, that extends 125 miles north and west of New York City. The New York City Water Supply System (PWSID NY7003493) consists of three individual water supplies: the Catskill/ Delaware supply, located in Delaware, Greene, Schoharie, Sullivan, and Ulster counties; the Croton supply, the city's original upstate supply, made up of 12 reservoir basins in Putnam, Westchester, and Dutchess counties; and a groundwater supply in southeastern Queens. In 2010, 100% of the city's drinking water came from the Catskill/ Delaware supply. Due to the city's ongoing efforts to maintain the appropriate volume and high quality of water in the distribution system, there is some rotation in the water sources used by DEP.

### Regulation of Drinking Water

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 dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants.

In order to ensure that tap water is safe to drink, the New York State Department of Health (NYSDOH) and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the federal Food and Drug Administration's (FDA) 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 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 (800) 426-4791.

# New York City's Water Supply System Catskill/Delaware Watersheds Reservoir Cannonsville Reservoir Ashokan Reservoir West Branch West Delaware Tunnel East Branch Neversink Reservoir Rondout Reservoir Liberty Croton Watershed West Branch Reservoir **Environmental Protection** New Croton Reservoir **NEW YORK CITY WATER TUNNELS AND DISTRIBUTION AREAS** Kensico Reservoir **OUEENS** BROOKLYN STATEN **ISLAND** Catskill / Delaware water service area Croton water service area (when in full operation)

Atlantic Ocean

Groundwater service area (when in operation)

# **Ensuring a Safe, Reliable and Sufficient Water Supply**

### Source Water Assessment Program

Federal regulations require states to develop and implement Source Water Assessment Programs (SWAP) to: identify the areas that supply public tap water; inventory contaminants, and assess water system susceptibility to contamination; and inform the public of the results. The states are given a great deal of flexibility on how to implement SWAP. Elevated susceptibility ratings, which can help estimate the potential for source water contamination, do not mean that source water contamination has or will occur in the water supply; rather, they indicate the need for water suppliers to implement additional precautionary measures.

Starting in 1993 and ending in 1997 with the historic New York City Watershed Memorandum of Agreement and the Filtration Avoidance Determination (FAD), New York City began implementation of a series of programs to reduce the susceptibility of the surface water supply to contamination from a variety of sources. These programs, which are ongoing, operate under the close scrutiny of both NYSDOH and EPA. Due to these efforts, NYSDOH did not deem it necessary to perform a Source Water Assessment Program for the New York City Water Supply.



# Protecting the Water Supply from Natural Gas Drilling (Hydrofracking)

DEP is committed to protecting New York City's water supply from natural gas drilling. It is incompatible with the operation of New York City's unfiltered water supply system and poses unacceptable risks for more than nine million New Yorkers in the city and state. Drilling in the watershed requires invasive industrialization and creates a substantial risk of chemical contamination and infrastructure damage. To learn more go to <a href="https://www.nyc.gov/dep">www.nyc.gov/dep</a>.

# Maintaining New York City's World Renowned Water Supply

### 10-Year Filtration Avoidance Determination from EPA

The year 2010 marked the third year of DEP's implementation of the latest 10-year FAD, issued by the U.S. Environmental Protection Agency in July of 2007. The FAD maintains New York City's status as one of only five large cities in the country with a surface drinking water supply of such high quality that filtration is not required. As part of the agreement, the city is enhancing existing watershed protection programs, including an agreement to enhance the commitment to acquire undeveloped land in the Catskill/ Delaware watershed as a means of watershed protection: an additional \$241 million was allocated (to the \$300 million committed in 1997) to be spent over a 10-year period for this purpose. Recently, New York State and New York City announced a landmark agreement to continue safeguarding New York City's drinking water. After three years of productive negotiations, the State issued a new 15-year water supply permit that allows New York City to continue acquisition of sensitive watershed land to protect the largest unfiltered drinking water supply in the world. For more information on DEP's watershed protection programs visit www.nyc.gov/dep.

Key programs and selected accomplishments include:

- Land Acquisition New York City buys real property interests from willing sellers, to further protect and buffer its 19 reservoirs and controlled lakes in the Catskill/ Delaware and Croton watersheds. In 2010, New York City protected nearly 12,000 acres, the most acres of watershed lands since the inception of the program. Since 1997, DEP has purchased about 116,000 acres of land or easements, adding to the 45,000 acres the city owned in 1997.
- Land Management With the acquisition of land over the past 14 years, the city has become one of the largest landowners in the watershed region. These properties must be managed to ensure that water quality is protected. Since 1997, DEP has increased the acreage of land open for recreation every year, and approximately 74,000 acres are now available for fishing, hiking, hunting, trapping, cross-country skiing and other passive activities.
- Partnership Programs Many of the city's watershed protection programs west of the Hudson River are administered by the Catskill Watershed Corporation (CWC), a non-profit corporation formed for this purpose. Together DEP and CWC have addressed more than 3,500 failing septic systems and authorized the construction of more than 70 stormwater control measures to address existing stormwater runoff. The city has also funded the construction of new community wastewater solutions for more than a dozen watershed communities.
- Wastewater Treatment Plant (WWTP) Upgrades –
  More than 100 non-city-owned WWTPs in the watershed
  are being upgraded to provide state-of-the-art treatment
  of pathogens and substantially reduce nutrients in their
  waste streams. Plants generating 100% of the west-of-

Hudson WWTP flow have been upgraded. In the Croton watershed, plants producing 90% of the flow have been fully upgraded.

Streams, Farms and Forestry Programs – The Stream Management Program (SMP) is a partnership program founded to encourage the long-term stewardship of streams and floodplains in the west-of-Hudson watershed. The Watershed Agricultural Program and Watershed Forestry Program both represent long-term successful partnerships between DEP and the not-for-profit Watershed Agricultural Council (WAC). The underlying goal of both programs is to support and maintain well-managed family farms and working forests as beneficial land uses for water quality protection and rural economic viability. Together, these partnerships work with watershed residents to identify and eliminate potential pollution sources.

### Catskill-Delaware Water Ultraviolet Disinfection Facility

Starting in 2008, New York City began constructing the Catskill-Delaware Water Ultraviolet (UV) Disinfection Facility for the Catskill/Delaware system. This plant will provide an additional level of disinfection to improve control of potential contaminants and pathogens. The plant, which is expected to begin operation in 2012, is located at the New York City-owned Eastview site, a 153-acre property situated in the towns of Mount Pleasant and Greenburgh in Westchester County, New York. The UV Disinfection Facility will consist of fifty-six 40-million-gallon-per-day UV disinfection units and is designed to disinfect a maximum of 2.4 billion gallons of water per day. The plant will provide an additional barrier of microbiological protection by inactivating potentially harmful organisms such as Cryptosporidium and Giardia. This treatment will supplement DEP's existing microbial disinfection programs required under the Safe Drinking Water Act.

### **Croton Water Filtration Plant**

The city is building a filtration plant for the Croton drinking water supply because of a federal Consent Decree entered into with the United States and the State of New York. The filtration plant is expected to reduce color levels, the risk of microbiological contamination, and disinfection byproducts. The filtration plant will also ensure compliance with stricter water quality standards. In September 2004, the city issued a notice to proceed for the first phase of construction of the Croton Water Filtration Plant at the Mosholu Golf Course site in Van Cortlandt Park in the Bronx. In August 2006 and August 2007, the second and third phases went forward. In 2010, construction work at the Croton Water Filtration Plant site continued to make progress: excavations of the two treated water tunnels have been completed as well as the installation of piping in these tunnels; placement of concrete for lining the raw water tunnel has been completed; and concrete placement, installation of mechanical, electrical, heating and ventilating, and plumbing work continues to advance. In addition, off-site work at the treated water shafts at the Jerome Park Reservoir is ongoing. DEP



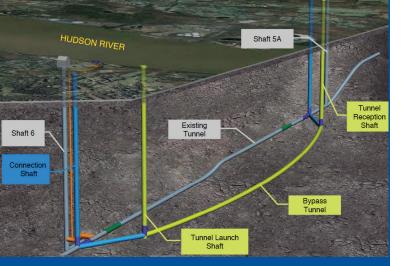


expects to complete construction of the filtration plant in approximately two years.

In addition to the filtration plant, the city remains committed to maintaining a comprehensive watershed protection program for the Croton water supply system. Although the Croton water supply system is currently offline and is not being used to provide any drinking water to New York City until DEP begins to filter Croton water, DEP is required to make the following statement: Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

### City Water Tunnel No. 3

City Water Tunnel No. 3 is being built in stages and is one of the largest capital projects in New York City's history. Begun in 1970, City Water Tunnel No. 3 will enhance and improve the city's water delivery system and allow for the inspection and repair of City Water Tunnels Nos. 1 and 2 for the first time since they were put into service in 1917 and 1936 respectively. The 13-mile Stage 1 section of City Water Tunnel No. 3 went into service in August 1998. It runs from Hillview Reservoir in Yonkers, through the Bronx, down Manhattan across Central Park, and into Astoria, Queens. Stage 2 of City Water Tunnel No. 3 consists of the Brooklyn/ Queens leg and the Manhattan leg. The Brooklyn/Queens leg is a 5.5-mile section in Brooklyn that connects to a fivemile section in Queens. The Brooklyn/Queens leg of the tunnel was completed in May 2001; however, several shafts still need to be constructed before activation. Expected to be online by 2020, the Brooklyn/Queens leg will deliver water to Staten Island, Brooklyn and Queens. Tunneling on the Manhattan portion of Stage 2 began in 2003 and was completed in 2008. Almost nine miles were excavated and lined with concrete. In addition, 10 new supply shafts have been constructed that will integrate the new tunnel section



# Investing in New York City's Water Supply System

In November 2010, DEP unveiled a design to repair leaks in the 85-mile Delaware Aqueduct to ensure the integrity of New York City's vital infrastructure, which is fundamental to New York City's long-term growth and prosperity. The construction of the bypass tunnel and the repair of the lining will ensure that DEP can continue to deliver high quality drinking water every day for decades to come. Under the plan, DEP will break ground on the bypass tunnel in 2013, and complete the connection to the Delaware Aqueduct in 2019. The bypass tunnel and other internal repairs will cost approximately \$1.2 billion, and water projects to supplement the city's supply during part of the construction period will cost approximately \$900 million.

with the existing distribution system. Work on the distribution chambers, which are underground facilities atop the shafts, continues and should be completed in late 2012. The Manhattan leg is expected to begin delivering water in late 2013.

#### Hillview Reservoir

Hillview Reservoir is the final reservoir in the Catskill/Delaware system prior to distribution. On May 24, 2010, the city and EPA entered into an Administrative Order on Consent (AOC), which sets forth a milestone schedule to cover the Hillview Reservoir by mid-2028. A previous 2008 Administrative Order between the city and NYSDOH automatically incorporates the provisions of the 2010 AOC. DEP is currently in compliance with the milestones set forth in the orders.

### **Groundwater System Enhancements**

DEP continues to develop plans for a new state-of-the-art groundwater treatment plant to replace DEP's existing facility located at Station 6 in Jamaica, Queens. The proposed facility, scheduled to be complete in 2021, will provide between 10 and 12 million gallons per day of high-quality drinking water.

### **Water Conservation**

The average single-family household in New York City uses about 80,000 gallons of water each year, at a cost of \$2.95 per 100 cubic feet of water (748 gallons), or about \$315.

Since virtually all city residences receive wastewater collection and treatment services in addition to water service, the combined annual water and sewer charge is \$816 for the typical New York City household using 80,000 gallons per year: \$315 for water service and \$501 for wastewater services (based on the FY 2011 rates).

New York City is fortunate to have reasonably priced drinking water compared to other cities around the country; however, everyone should do his or her part to conserve this important resource. All New Yorkers are encouraged to observe good water conservation habits, and are required to obey the city's year-round water use restrictions, which include a prohibition on watering sidewalks and lawns between November 1 and March 31, and between 11 AM and 7 PM from April 1 to October 31. It is illegal to open fire hydrants at any time. During the summer, hydrants can be opened legally only if equipped with a city-approved spray cap, which can be installed on request by your local fire company.

You can help save water by ordering a home or apartment water conservation kit by calling the city's helpline, 311. If you are an apartment building owner/manager or a homeowner, you can obtain a free leak survey by calling DEP's leak survey contractor at (718) 326-9426 for information or visit <a href="https://www.nyc.gov/dep">www.nyc.gov/dep</a>.

### **Water Treatment**

Drinking water entering New York City's distribution system is treated with chlorine, fluoride, food grade phosphoric acid and sodium hydroxide. New York City uses chlorine to meet disinfection requirements. Fluoride, added since 1966, at a concentration of one part per million helps prevent tooth decay. Phosphoric acid is added to create a protective film on pipes that reduces the release of metals such as lead from household plumbing. Sodium hydroxide is added to Catskill/Delaware water to raise the pH and reduce corrosivity, which also helps reduce potential exposure to lead.

#### **Fluoride**

DEP is one of the many drinking water systems in New York State that treats drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control and Prevention (CDC), fluoride is very effective in preventing cavities when present in drinking water at an optimal range of 0.8 to 1.2 mg/L. The CDC is currently in the process of reviewing the optimal fluoride dosage recommendation. The New York City Health Code requires a fluoride concentration of 1.0 mg/L, with an acceptable range of 0.9 to 1.1 mg/L. To ensure that the fluoride supplement in your water provides optimal dental protection, NYSDOH requires that we monitor fluoride levels on a daily basis. In 2010, none of the monitoring results showed fluoride at levels that approach the 2.2 mg/L maximum contaminant level (MCL).

# **STRATEGY** 2011-2014

# **DEP Launches Ambitious and Forward-Thinking Strategic Plan**

Mayor Michael R. Bloomberg and Environmental Protection Commissioner Cas Holloway recently unveiled Strategy 2011-2014, a far-reaching strategic plan that lays out 100 distinct initiatives to make DEP the safest, most efficient, cost-effective, and transparent water utility in the nation. Each initiative directly advances one of DEP's core functions: serving nine million water customers; supplying and treating more than one billion gallons of water every day; making cost-effective infrastructure investments; and achieving a sustainable quality of life for all New Yorkers. The new plan, the product of nearly one year of analysis and outreach, builds on PlaNYC, Mayor Bloomberg's sustainability blueprint for New York City. From improving harbor water quality to harnessing clean renewable energy, Strategy 2011-2014 includes bold and achievable initiatives that will improve New Yorkers' quality of life—at a price they can af-

ford. The plan will guide DEP's investments and operations over the next four years, and DEP will publish an annual report card on the progress of each initiative. For more information or to download the Strategy, visit <a href="https://www.nyc.gov/dep">www.nyc.gov/dep</a>.

"Building on the successes of the past eight years, DEP has developed this exciting strategic plan that lays out the next generation of improvements to our water system, as well as ambitious strategies such as a Green Infrastructure Plan to reduce combined sewer overflows that will transform the City and improve water quality."

- Mayor Michael R. Bloomberg

During 2010, fluoride was not continuously supplied in the Catskill/Delaware System due to maintenance to the fluoride feed system and other aqueduct construction activities that required the system to be turned off. Fluoridation on the Catskill and Delaware system was off-line 34% and 43% of the time, respectively. The longest period of fluoridation interruption was approximately 102 days, from June 21 to October 1, 2010, due to construction work at Hillview Reservoir that impacted system operations. The New York State Department of Health's Bureau of Dental Health has indicated that a continuous interruption of fluoridation lasting 102 days is not expected to have a significant impact on dental health. Outside of this time period, DEP met optimal fluoride levels more than 80% of the time.

# **Operational Changes**

Water from the Croton and Groundwater systems was not fed into distribution during 2010. Operational information for the Groundwater System can be found at <a href="https://www.nyc.gov/dep">www.nyc.gov/dep</a>. The New York City Water Supply System map, located on the inside front cover of this report, represents the Catskill/Delaware, Croton, and Groundwater service areas. This map depicts the Croton and Groundwater service areas when they are in operation.

## **Drinking Water Quality**

DEP's water quality monitoring program—far more extensive than required by law—demonstrates that the quality of New York City's drinking water remains high and meets all health-related state and federal drinking water standards.

## **Drinking Water Sampling and Monitoring**

DEP monitors the water in the distribution system, the upstate reservoirs and feeder streams, and wells that are sources for the city's supply. Certain water quality parameters are monitored continuously as the water enters the distribution system, and water quality is regularly tested at sampling points throughout the city at nearly 1,000 water quality sampling stations. DEP conducts analyses for a broad spectrum of microbiological, chemical, and physical measures of quality. In 2010, DEP collected more than 33,000 samples from the city's distribution system and performed more than 375,800 analyses, meeting all state and federal sampling requirements. Results of this regular monitoring are an indicator of whether or not drinking water meets health standards.

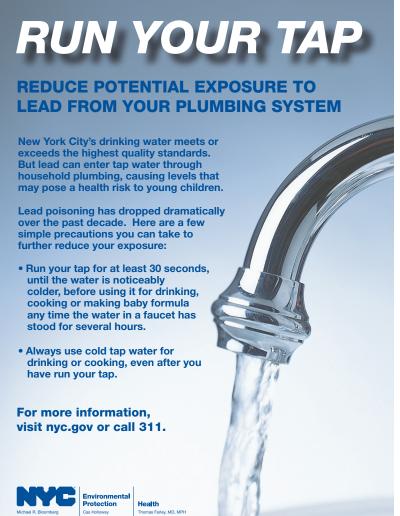
### Test Results

The results of the tests conducted in 2010 under DEP's Distribution System Monitoring Program are summarized in the tables on pages 10 and 11 of this report. These tables

reflect the compliance monitoring results for all regulated and non-regulated parameters. The tables present both the federal and state standard for each parameter (if applicable), the number of samples collected, the range of values detected, the average of the values detected, and the possible sources of the parameters. The monitoring frequency of each parameter varies and is parameter specific. All data presented are for the Catskill/Delaware system, which was the only source of drinking water citywide in 2010. Those parameters monitored, but not detected in any sample, are presented in a separate box.

### Lead in Drinking Water

New York City water is virtually lead-free when it is delivered from the city's upstate reservoir system, but water can absorb lead from solder, fixtures, and pipes found in the plumbing of some older buildings or homes. DEP has an active corrosion control program aimed at reducing lead absorption from service lines and internal plumbing. Under the federal Lead and Copper Rule, mandated atthe-tap lead monitoring is conducted at selected households located throughout the city. Based on the results of this monitoring, in 2010, the 90th percentile exceeded 15  $\mu g/L$ , the established standard or Action Level for lead. The 2010  $90^{th}$  percentile was 19  $\mu g/L$ . At-the-tap monitoring results are presented in a separate table on page 11 of this report.



Upon the discovery of slightly elevated levels, DEP began a public education program on lead in drinking water. On November 4, 2010, DEP posted a public education pamphlet, *Important Information about Lead in Household Plumbing* and "Run Your Tap" campaign poster on the DEP website at <a href="https://www.nyc.gov/dep">www.nyc.gov/dep</a>. Copies of the pamphlet and poster were distributed citywide and a press release was submitted to all major media outlets in New York City.

Additionally, on November 4, 2010, DEP along with the New York City Department of Health and Mental Hygiene (DOHMH) launched a "Run Your Tap" public service campaign to educate city residents about simple precautions that can be taken to reduce potential exposure to lead from internal plumbing systems.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. DEP 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, until the water gets noticeably colder, before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

DEP offers a Free Residential Lead Testing Program which allows all New York City residents to have their tap water tested at no cost. To request a free kit to test for lead in your drinking water, call the city's 24-hour helpline at 311 or visit www.nyc.gov/apps/311/.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <a href="https://www.epa.gov/safewater/lead">www.epa.gov/safewater/lead</a>.

### **Turbidity**

Turbidity is a measure of water clarity related to the amount of suspended matter present in the water. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. DEP monitors for turbidity every four hours at selected compliance locations representative of the raw source waters. NYSDOH allows this sample to be collected within +/- 5 minutes of the 4-hour mark. On March 10, 2010 and December 27, 2010, DEP did not monitor for turbidity within the required four hour time period, and therefore cannot be sure of the quality of your drinking water during that time. Both these incidents were determined by NYSDOH to constitute a monitoring violation as specified in the federal Safe Drinking Water Act regulation (40 CFR §141.71(a) (2)) and the New York State Sanitary Code 10 NYCRR section 5-1.30(c)(2). Extensive water quality monitoring in the city's distribution system during these time periods demonstrated that the water supply met all other drinking water quality standards.

- On March 10, 2010 at 12:00 PM, the compliance sample collected by DEP for the measurement of the raw water turbidity on the Delaware Aqueduct was determined to be not representative of source water entering the distribution system at that time. The sample was taken following gate operations which impacted the turbidity measurement. Since the water sampled at 12:00 PM was not representative of source water, DEP does not have a sample result for this time. With the exception of the one non-representative sample on March 10, 2010 at 12:00 PM, all remaining compliance samples met requirements. Although this was not an emergency, and no action is required on your part, you, as our customer, have a right to know the circumstances. There is no reason to stop using the water supplied to your home/business as a result of this monitoring violation. DEP made operational changes and is in the process of re-installing the raw water sample pump in the downtake shaft.
- On December 27, 2010, at 4:00 AM, the compliance sample for the Catskill Lower Effluent Chamber raw water turbidity was not collected until 4:13 AM due to snowstorm conditions that resulted in a power outage that delayed access to the sampling location. Since the sample was collected outside of the acceptable +/- 5-minute window, DEP does not have a sample result for this time. DEP will upgrade an existing generator with an automatic transfer switch so that continuous monitoring instrumentation will remain operable during power outages. A new generator will also be installed at DEP's nearby Kensico laboratory to help ensure that turbidity monitoring can also be performed in the laboratory in the case of a power outage. The upgrade to the existing generator is expected to be completed by December 2011, and the installation of the new generator is expected to be completed by 2012.

# Monitoring for Cryptosporidium and Giardia

In 1992, the city started a comprehensive program to monitor its source waters and watersheds for the presence of Cryptosporidium and Giardia. Since then, samples have been collected weekly from the outflows of the Kensico and New Croton reservoirs, before water is chlorinated in the Catskill/Delaware and Croton systems. While there is no evidence that any cases of cryptosporidiosis or giardiasis have been attributed to the New York City water supply, federal and New York State law requires all water suppliers to notify their customers about the potential risks of Cryptosporidium and Giardia. Cryptosporidiosis and giardiasis are intestinal illnesses caused by microscopic pathogens, which can be waterborne. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care providers about their drinking water.

From January 1 to December 31, 2010, a total of 104 routine samples were collected and analyzed for Cryptosporidium oocysts and Giardia cysts at the Kensico Reservoir effluents, and 52 routine samples were collected at the New Croton Reservoir effluent. Samples were analyzed using Method 1623 HV (US EPA). The test method, however, is limited in that it does not allow DEP to determine if organisms identified are alive or capable of causing disease. Of the 104 routine Kensico Reservoir effluent samples, four were positive for Cryptosporidium (0 to 1 oocysts/50L), and 68 were positive for Giardia (0 to 8 cysts/50L). Of the 52 routine New Croton Reservoir effluent samples, five were positive for Cryptosporidium (0 to 1 oocysts/50L), and 30 were positive for Giardia (0 to 9 cysts/50L). DEP's Cryptosporidium and Giardia data from 1992 to the present, along with weekly updates, can be viewed on the DEP website at www.nyc.gov/dep.

DEP's Waterborne Disease Risk Assessment Program conducts active surveillance for cryptosporidiosis and giardiasis to track the incidence of illness and determine all possible causes, including tap water consumption. No cryptosporidiosis or giardiasis outbreaks have been attributed to tap water consumption in New York City. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at (800) 426-4791.

# **New York City Drinking Water Quality Testing Results 2010**

## **Detected Parameters**

DADAMETEDS	NYSDOH	USEPA	CATSKILL/DELAWARE SYSTEM		YSTEM	COURCE IN DRINKING WATER	
PARAMETERS	MCL	1	# SAMPLES	RANGE	AVERAGE	SOURCES IN DRINKING WATER	
CONVENTIONAL PHYSICAL AND CHEMIC	CAL PARAM	ETERS					
Alkalinity (mg/L CaCO <sub>a</sub> )	-		317	7.05 - 24	12.9	Erosion of natural deposits	
Aluminum (µg/L)	50 - 200 (1)		317	2 - 115	20	Erosion of natural deposits	
Barium (mg/L)	2	2	317	0.011 - 0.024	0.017	Erosion of natural deposits	
Calcium (mg/L)	-		319	4.8 - 6.4	5.5	Erosion of natural deposits	
Chloride (mg/L)	250		315	8 - 15	10	Naturally occurring; road salt	
Chlorine Residual, Free (mg/L)	4 (2)		14624	0.00 - 1.52	0.63	Water additive for disinfection	
Color - distribution system (color units - apparent)	-		13534	4 - 65	6	Presence of iron, manganese, and organics in water	
Color - entry points (color units - apparent)	15 <sup>(3)</sup>		1094	4 - 12	7	Presence of iron, manganese, and organics in water	
Copper (mg/L)	1.3 (4)	1.3	319	0.004 - 0.049	0.009	Corrosion of household plumbing systems; erosion of natural deposits	
Corrosivity (Langelier index)	0 (1, 5)		314	-2.94 to -1.80	-2.41		
Fluoride (mg/L)	2.2 (3)	4.0	1504	ND - 1.31	0.53	Water additive which promotes strong teeth; erosion of natural deposits	
Hardness (mg/L CaCO <sub>3</sub> )	-		317	17 - 22	19	Erosion of natural deposits	
Hardness (grains/gallon[US]CaCO <sub>2</sub> ) (6)	-		317	1.0 - 1.3	1.1	Erosion of natural deposits	
Iron (µg/L)	300 (3) (7)		317	20 - 330 (8)	40	Naturally occurring	
Lead (µg/L)	15 (4)	0	319	ND - 4	0.5	Corrosion of household plumbing systems; erosion of natural deposits	
Magnesium (mg/L)	-		317	1.0 - 1.5	1.2	Erosion of natural deposits	
Manganese (µg/L)	300 (3) (7)		317	10 - 166	19	Naturally occurring	
Nitrate (mg/L nitrogen)	10	10	315	0.06 - 0.15	0.11	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
pH (pH units) (9)	6.5 - 8.5 <sup>(1)</sup>		14612	6.6 - 8.2	7.2		
Phosphate, Ortho- (mg/L)	-		14624	0.23 - 2.95	2.09	Water additive for corrosion control	
Potassium (mg/L)	-		371	0.5 - 0.7	0.6	Erosion of natural deposits	
Silica [silicon oxide] (mg/L)	-		289	1.5 - 3.1	2.4	Erosion of natural deposits	
Sodium (mg/L)	NDL (3) (10)		317	7 - 11	8	Naturally occurring; road salt; water softeners; animal waste	
Specific Conductance (µS/cm)	-		14628	68 - 111	84		
Strontium (µg/L)	-		317	17 - 25	20	Erosion of natural deposits	
Sulfate (mg/L)	250 <sup>(3)</sup>		315	3.9 - 5.2	4.5	Naturally occurring	
Temperature (°F)	-		14629	35 - 80	55		
Total Dissolved Solids (mg/L)	500 (1)		315	35 - 57	48	Metals and salts naturally occurring in the soil; organic matter	
Total Organic Carbon (mg/L carbon)	-		289	1.3 - 1.9	1.5	Organic matter naturally present in the environment	
Turbidity (11) - distribution system (NTU)	5 (12)		13534	0.4 - 18.4	1	Soil runoff	
Turbidity (11) - source water (NTU)	5 (13)		-	-	4.3	Soil runoff	
UV 254 Absorbency (cm-1)	-		312	0.02 - 0.038	0.03	Organic matter naturally present in the environment	
Zinc (mg/L)	5 (3)		317	ND - 0.014	<0.005	Naturally occurring	
ORGANIC PARAMETERS							
Specified Organic Chemicals detected:		,					
Dalapon (µg/L)	50		241	ND - 1.13	ND	By-product of drinking water chlorination; runoff from herbicide use	
Disinfection By-Products detected:				•			
Bromochloroacetic Acid (µg/L)	50		241	ND - 2.48	1.46	By-product of drinking water chlorination	
Chloral Hydrate (µg/L)	50		16	2.4 - 9.9	5.8	By-product of drinking water chlorination	
Chloropicrin (µg/L)	50		16	0.3 - 1.0	0.6	By-product of drinking water chlorination	
Haloacetonitriles (HANs) (μg/L)	50		16	1.2 - 3.8	2.7	By-product of drinking water chlorination	
Halogenated Ketones (HKs) (µg/L)	50		16	1.5 - 4.0	2.7	By-product of drinking water chlorination	
Total Organic Halogen (µg/L)	-		289	107 - 234	169		
		CATSI	(ILL-DELAWA	RE SERVICE AR	EA (14)		
Haloacetic Acid 5 (HAA5) (µg/L)	60 (15)		192	19 - 71	44	By-product of drinking water chlorination	
Total Trihalomethanes (µg/L)	80 (15)		216	13 - 60	48	By-product of drinking water chlorination	
			CROTON SEI	RVICE AREA (14)			
Haloacetic Acid 5 (HAA5) (µg/L)	60 (15)		32	25 - 61	50	By-product of drinking water chlorination	
Total Trihalomethanes (μg/L)	80 (15)		48	18 - 58	50	By-product of drinking water chlorination	
		GR	OUNDWATER	SERVICE AREA	(14)		
Haloacetic Acid 5 (HAA5) (µg/L)	60 (15)		17	16 - 53	37	By-product of drinking water chlorination	
Total Trihalomethanes (µg/L)	80 (15)		51	16 - 53	33	By-product of drinking water chlorination	

### **Detected Parameters (continued)**

MICROBIAL PARAMETERS										
PARAMETERS	NYSDOH MCL	USEPA MCLG		CIT	YWIDE DISTRI					
			# SAMPLES	RANGE	# SAMPLES POSITIVE	AVERAGE	HIGHEST MONTH % POSITIVE	SOURCES IN DRINKING WATER		
Total Coliform Bacteria (% of samples positive/month)	5%	0	9958	-	46	-	1.3%	Naturally present in the environment		
E. coli (MPN/100mL)	(16)	0	9958	-	1	-	0.1%	Human and animal fecal waste		
Heterotrophic Plate Count (CFU/mL)	TT	-	4785	ND - 535	206	1	-	Naturally present in the environment		

LEAD AND COPPER RULE SAMPLING AT RESIDENTIAL WATER TAPS: JANUARY TO DECEMBER 2010									
PARAMETER	NYSDOH AL	USEPA MCLG	# SAMPLES	RANGE	90 <sup>th</sup> PERCENTILE VALUES	# SAMPLES EXCEEDING AL	SOURCES IN DRINKING WATER		
Surface Water Service Area									
Copper (mg/L)	1.3	1.3	222	0.009 - 2.100	0.241	1	Corrosion of household plumbing systems		
Lead (µg/L)	15	0	222	ND - 1590	19	30	Corrosion of household plumbing systems		

### **Not Detected Parameters**

#### **UNDETECTED CONVENTIONAL PHYSICAL AND CHEMICAL PARAMETERS**

Antimony, Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Cyanide, Foaming Agents, Lithium, Mercury, Nickel, Nitrite, Selenium, Silver, Thallium, Gross Alpha (17), Gross Beta (17), Radium 228 (17)

#### **UNDETECTED ORGANIC PARAMETERS**

#### **Principal Organic Contaminants not detected:**

Benzene, Bromobenzene, Bromochloromethane, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon Tetrachloride, Chlorobenzene, Chlorobenzene, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethane, 1,2-Dichloroethylene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloropropane, cis-1,3-Dichloropropane, trans-1,3-Dichloropropane, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, p-Isopropyltoluene, Methylene chloride, n-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2-Tetrachloroethylene, Toluene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichlorofluoromethane, 1,2,3-Trichloropropane, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, m-Xylene, p-Xylene, p-Xylene, p-Xylene

#### **Specified Organic Chemicals not detected:**

Alachlor, Aldicarb (Temik), Aldicarb sulfone, Aldicarb sulfoxide, Aldrin, Atrazine, Benzo(a)pyrene, Butachlor, Carbaryl, Carbofuran (Furadan), Chlordane, 2,4-D, 1,2-Dibromo-3-chloropropane, Dicamba, Dieldrin, Di(2-ethylhexyl)adipate, Di(2-ethylhexyl)phthalate, Dinoseb, Diquat, Endothall, Endrin, Ethylene dibromide (EDB), Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, 3-Hydroxycarbofuran, Lindane, Methomyl, Methoxychlor, Methyl-tertiary-butyl-ether (MTBE), Metolachlor, Metribuzin, Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated biphenyls [PCBs], Propachlor, Simazine, Toxaphene, 2,4,5-TP (Silvex), 2,3,7,8-TCDD (Dioxin), Vinyl chloride

#### Unspecified Organic Chemicals not detected:

Acenaphthylene, Acetochlor, Acetone, Acifluorfen, Ametryn, Anthracene, Bentazon, Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[g,h,i]perylene, a-BHC, b-BHC, d-BHC, Bromacil, Butylate, Butylate, Butylate, Caffeine, Carboxin, a-Chlordane, g-Chlordane, Chlorobenzilate, 2-Chlorobiphenyl, Chloroneb, Chlorothalonil (Draconil, Bravo), Chlorpropham, Chlorpyrifos (Dursban), Chrysene, Cycloate, 2,4-DB, DCPA(Dacthal), DCPA (total mono & diacid degradate), p,p'DDD, p,p'DDD, p,p'DDD, p,p'DDT, DEF(Merphos), Diazinon, Dibenz[a,h]anthracene, Di-n-Butylphthalate, 3,5-Dichlorobenzoic acid, 2,3-Dichlorobiphenyl, Dichlorprop, Dichlorvos (DDVP), Diethylphthalate, Dimethoate, Dimethylphthalate, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Di-N-octylphthalate, Diphenamid, Disulfoton, Endosulfan I, Endosulfan sulfate, Endrin aldehyde, EPTC, Ethoprop, Etridiazole, Fenamiphos, Fenamiphos, Fenaminol, Fluoranthene, Fluorene, Fluridone, alpha-HCH, beta-HCH, delta-HCH, 2,2',3,3',4,4',6-Heptachlorobiphenyl, Heptachlor epoxide (isomer B), 2,2',4,4',5,6'-Hexachlorbiphenyl, Hexazinone, Indeno[1,2,3-cd]pyrene, Isophorone, Malathion, Methiocarb, Methyl Paraoxon, Mevinphos, MGK264-isomer a, MGK264-isomer b, Molinate, Naphthalene, Napropamide, cis-Nonachlor, trans-Nonachlor, Norflurzon, 2,2',3,3',4,5',6,6'-Octachlorobiphenyl, Paraquat, Parathion, Pebulate, Pendimethalin, 2,2',3',4,6-Pentachlorobiphenyl, Permethrin, trans-Permethrin, Phenanthrene, Prometryn, Pronamide, Propazine, Propoxur (Baygon), Pyrene, 2,4,5-T, Simetryn, Stirofos, Tebuthiuron, Terbacil, Terbufos, Terbuthylazine, Terbutryn, 2,2',4,4'-Tetrachlorobiphenyl, Thiobencarb, Triademefon, 2,4,5-Trichlorobiphenyl, Tricyclazole, Trifluralin, Vernolate

Highlighted and **bolded** value indicates an exceedance of an action level or drinking water standard.

#### **Footnotes**

- USEPA Secondary MCL: NYSDOH has not set an MCL for this parameter.
- (2) Value represents MRDL, which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. The MRDL is enforceable in the same manner as an MCL and is the calculated running annual average. Data presented are the range of individual sampling results and the highest of the four quarterly running annual averages.
- (3) Determination of MCL violation: If a sample exceeds the MCL, a second sample must be collected from the same location within two weeks. If the average of the two results exceeds the MCL, then an MCL violation has occurred.
- (4) Action Level (not an MCL) measured at the tap. The data presented in this table were collected from sampling stations at the street curb. For at-the-tap monitoring, see the Lead and Copper Rule Sampling at Residential Water Taps table.
- A Langelier Index of less than zero indicates corrosive tendencies.
- (6) Hardness of up to 3 grains per gallon is considered soft water; between 3 and 9 is moderately hard water.
- (7) If iron and manganese are present, the total concentration of both should not exceed 500 µg/L.
- (8) Only one sample collected on 06/08/10 from site 45250 (Somerville, 11392) had an elevated value of 330 μg/L, above the MCL; since the average of the initial sample's result and the second confirmation sample was less than the MCL there is no violation.
- (9) The reported average value for pH is the median value.
- (10) Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.
- (11) Turbidity is a measure of cloudiness of the water. Turbidity is monitored because it is a good indicator of water quality and can hinder the effectiveness of disinfection.
- (12) This MCL for turbidity is the monthly average rounded off to the nearest whole number. Data presented are the range of individual sampling results and the highest monthly average from distribution sites.
- (13) This MCL for turbidity is on individual readings taken every four hours at the source water entry point. Value presented is the highest individual sampling result.
- (14) Although Croton water and groundwater were not put into distribution in 2010, DBP monitoring is conducted at specified locations based on the potential distribution of the different source waters to consumers. As such, each source has a defined set of monitoring sites and the data are reported by service area.
- (15) The MCLs for HAA5 and TTHMs are the calculated quarterly running annual average. Data presented are the range of individual sampling results and the highest quarterly running annual average.
- (16) If a sample and its repeat sample are both positive for coliform bacteria and one of the two samples is positive for *E. coli*, then an MCL violation has occurred.
- (17) The State allows monitoring for these radioactive contaminants less frequently than once per year. These data, though representative, are from 2008.

#### **Definitions**

### Action Level (AL):

The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow. An exceedance occurs if more than 10% of the samples exceed the Action Level.

### Maximum Contaminant Level Goal (MCLG):

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.

### 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 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 Level 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.

### Treatment Technique (TT):

A required process intended to reduce the level of a contaminant in drinking water.

### 90th Percentile Value:

The values reported for lead and copper represent the 90<sup>th</sup> percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below the value. The 90<sup>th</sup> percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

### **Abbreviations**

**CFU/mL** = colony forming units per milliliter

mg/L = milligrams per liter (10<sup>-3</sup> grams per liter)

MPN/100mL = most probable number per 100 milliliter

**NA** = Not Applicable

**ND** = Lab analysis indicates parameter is not present

**NDL** = No Designated Limit

**NTU** = Nephelometric Turbidity Units

μS/cm = microsiemens per centimeter

 $\mu$ g/L = micrograms per liter (10<sup>-6</sup> grams per liter)

µmho/cm = micromhos per centimeter

pCi/L = picocuries per liter

### **Frequently Asked Questions**

### Is New York City's water "hard"?

Hardness is a measure of dissolved calcium and magnesium in drinking water. The less calcium and magnesium in the water ("soft" water), the easier it is to create lather and suds. New York City's Catskill/Delaware system water is predominantly "soft" with a hardness of about 1.0 grain/gallon (CaCO<sub>a</sub>).

# At times, my drinking water looks "milky" when first taken from a faucet, but then clears up. Why?

Air becomes trapped in the water as it makes its long trip from the upstate reservoirs to the city. As a result, bubbles of air can sometimes cause water to appear cloudy or milky. This condition is not a public health concern. The cloudiness is temporary and clears quickly after water is drawn from the tap and the excess air is released.

### At times I can detect chlorine odors in tap water. What can I do about it?

Chlorine odors may be more noticeable when the weather is warmer. Chlorine is a disinfectant and is added to the water to kill germs. The following are ways you can remove the chlorine and its odor from your drinking water:

- Fill a pitcher and let it stand in the refrigerator overnight. (This is the most effective way to address a chlorine odor in drinking water.)
- Fill a glass or jar with water and let it stand in sunlight for 30 minutes.
- Pour water from one container to another about 10 times.
- Heat the water to about 100 degrees Fahrenheit.
- Once you remove the chlorine, be sure to refrigerate the water to limit bacterial regrowth.

### Does my drinking water contain fluoride?

Yes, New York City tap water contains fluoride. In accordance with Article 141.05 of the New York City Health Code, DEP, as the New York City water supplier, adds a fluoride compound that provides our water supply with a concentration of approximately 1.0 mg/L fluoride. Fluoridation began in 1966.

### Sometimes my water is a rusty brown color. What causes this?

Brown water is commonly associated with plumbing corrosion problems inside buildings and from rusting hot water heaters. If you have an ongoing problem with brown water, it is probably due to rusty pipes. It is recommended that you run your cold water for two to three minutes, if it has not been used for an extended period of time. This will flush the line. You can avoid wasting water by catching your "flush" water in a container and using it to water plants or for other purposes. Brown water can also result from street construction or water main work being done in your area. Any disturbance to the main, including the opening of a fire hydrant, can cause pipe sediment to shift, resulting in brown water. The settling time will vary, depending on the size of the water main.

### Should I buy bottled water?

You do not need to buy bottled water for health reasons in New York City since our water meets all federal and State health-based drinking water standards. In addition, bottled water costs up to 1,000 times more per year than the city's drinking water. When purchasing bottled water, consumers should look for the New York State Health Department (NYSHD) CERT #. Consumers can access additional information on New York State certified bottled water facilities within the United States that can be sold within New York State at <a href="https://www.health.state.ny.us/environmental/water/drinking/bulk\_bottle/bottled.htm">www.health.state.ny.us/environmental/water/drinking/bulk\_bottle/bottled.htm</a>. As an alternative to purchasing bottled water, use a reusable bottle and fill it with New York City tap water.

<sup>\*</sup> This report was prepared in accordance with Part 5-1.72 of the New York State Sanitary Code (10NYCRR), and the National Primary Drinking Water Regulations, 40 CFR Part 141 Subpart O, of the United States Environmental Protection Agency (EPA), which require all drinking water suppliers to provide the public with an annual statement describing the water supply and the quality of its water.





59-17 Junction Boulevard Flushing, New York 11373-5108

# PRSRT STD US POSTAGE PAID

City of New York
Department of
Environmental Protection

Please share this information with other people who drink New York City tap water, especially those who may not have received this publication directly such as people who live in apartment buildings or nursing homes, attend schools, or have businesses. You can do this by posting this publication in a public place or distributing copies by hand mail or email.

#### Resources

For additional copies of this report, to report unusual water characteristics, or to request a free kit to test for lead in your drinking water, call 311 or from outside NYC call (212) New-York or visit 311 online. TTY services are available by calling (212) 504-4115.

For more information about *Cryptosporidium* and *Giardia*, contact the Bureau of Communicable Diseases of the New York City Department of Health and Mental Hygiene at (212) 788-9830 or call 311 or visit <a href="https://www.nyc.gov/apps/311/">www.nyc.gov/apps/311/</a>.

To contact the New York City Department of Health and Mental Hygiene about other water supply health-related questions, call 311or visit 311 online, or call New York State Department of Health, Bureau of Water Supply Protection at (518) 402-7650.

To report pollution, crime or terrorism activity occurring in the watershed, call (888) H2O-SHED (426-7433).

To view the 2010 Annual Water Supply and Quality Report, announcements of public hearings, and other information about the New York City Water Supply System, visit DEP's website at <a href="https://www.nyc.gov/dep">www.nyc.gov/dep</a>.

Este reporte contiene información muy importante sobre el agua que usted toma. Haga que se la traduzcan o hable con alguien que la entienda.

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

Questo documento contiene informazioni importanti sulla vostra acqua potabile. Traducete il documento, or parlatene con qualcuno che lo puó comprendere.

Rapò sa a gen enfòmasyon ki enpòtan anpil sou dlo w'ap bwè a. Fè tradwi-l pou ou, oswa pale ak yon moun ki konprann sa ki ekri ladan-l.

Ten raport zawiera bardzo istotną informacje o twojej wodzie pitnej. Przetłumacz go albo porozmawiaj z kimś kto go rozumie.

В этом материале содержится важная информация относительно вашей питьевой воды. Переведите его или поговорите с кем-нибудь из тех, кто понимает его содержание.

這個報告中包含有關你的飲用水的重要信息。 請將此報告翻譯成你的語言,或者詢問懂 得這份報告的人。

이 보고서는 귀하의 식수에 관한 매우 중요한 정보를 포함하고 있습니다. 이 정보에 대해 이해하는 사람에게 그 정보를 번역하거나 통역해 받으십시오.