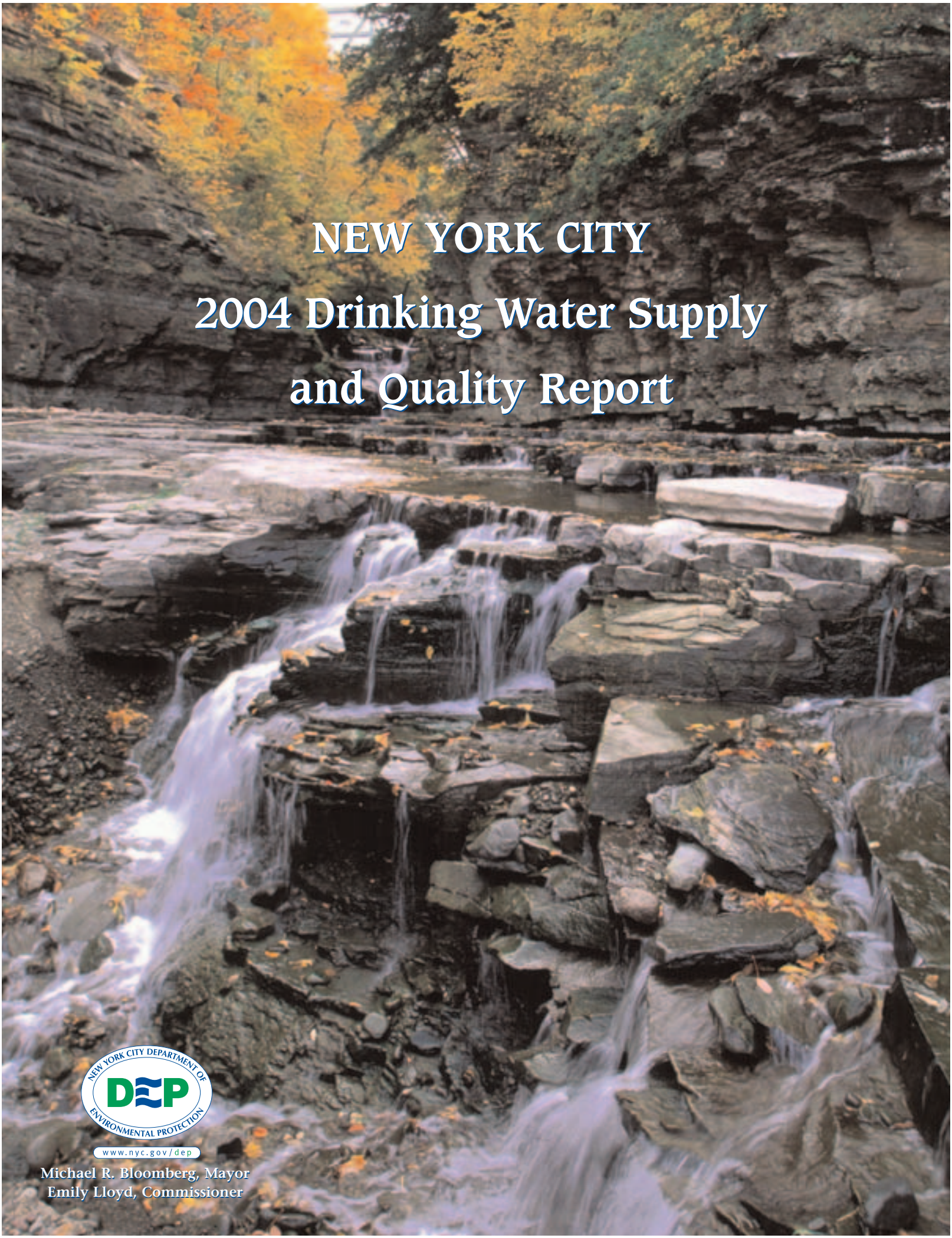


NEW YORK CITY
2004 Drinking Water Supply and Quality Report

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP

www.nyc.gov/dep

Michael R. Bloomberg, Mayor
Emily Lloyd, Commissioner

City park fountain at South Beach, Staten Island

NEW YORK CITY 2004 DRINKING WATER SUPPLY AND QUALITY REPORT

The New York City Department of Environmental Protection (DEP) is pleased to present its 2004 Annual Water Quality Report. 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.

New York City's Water Supply

The New York City surface (reservoir) water supply system provides approximately 1.2 billion gallons of safe drinking water daily to over 8 million residents of New York City; approximately one million people living in Westchester, Putnam, Ulster, and Orange counties; as well as the millions of tourists and commuters who visit the City throughout the year. In addition to our surface water supplies, up to 350,000 people in southeastern Queens may receive groundwater or a blend of groundwater and surface water. In all, the City system supplies high quality water to nearly half the population of New York State.

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 1,972 square-mile watershed that extends 125 miles north and west of New York City. In 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. Approximately 94% of our water comes from the Catskill/Delaware System (Public Water System Identification Number [PWSID] NY7003493), located in Delaware, Greene, Schoharie, Sullivan, and Ulster counties, west of the Hudson River. In 2004, the Croton System (PWSID NY7003666), the City's original upstate supply, provided, on average, 5% of the daily supply to the City from 12 reservoir basins in Putnam, Westchester, and Dutchess counties. In 2004, New York City's Groundwater System (PWSID NY7011735) in southeastern Queens operated 7 wells and supplied a daily average of 6.4 million gallons of drinking water, less than 1% of the City's total usage.

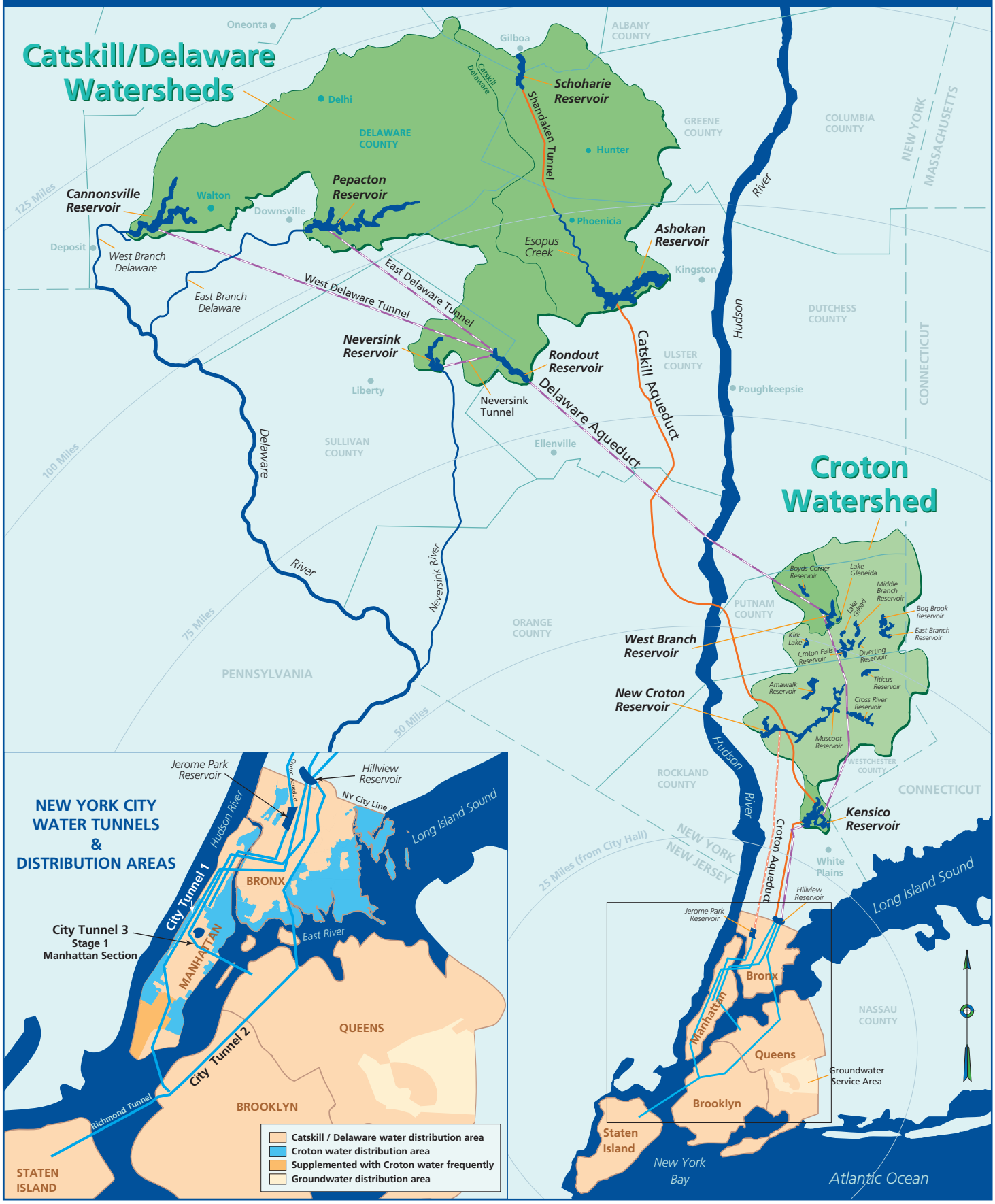
Regulation of Drinking Water

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. State Health Department and federal Food and Drug Administration regulations establish limits for contaminants in bottled water.

Sources of drinking water worldwide (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.

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



Ensuring a Safe, Reliable and Sufficient Water Supply

Watershed Protection Programs

During 2004, New York City continued implementation of its comprehensive watershed protection programs. These efforts focused on three key program areas: the acquisition of watershed lands; the enforcement of strengthened Watershed Regulations; and the expansion of partnership programs that target specific sources of pollution in the watershed. In addition, DEP continued work on a number of water quality studies and continued implementing and funding the upgrades of non-City-owned wastewater treatment plants (WWTPs). More information on these programs can be found on DEP's web site at www.nyc.gov/watershed.

Land Acquisition

In 2004, DEP met the goals for soliciting watershed lands set forth in the 1997 Watershed Memorandum of Agreement. Specifically, DEP solicited owners of 47,800 acres of watershed lands in designated priority areas. In the first eight years of the program, New York City solicited owners of more than 385,412 acres of Catskill and Delaware land, with 61,295 acres either acquired or under purchase contract in the entire watershed. During 2004, DEP closed deals on 90 parcels, totaling 5,652 acres, and signed contracts to acquire an additional 63 parcels, comprising 6,001 acres.

DEP has also made significant progress in acquiring lands in critical basins. In the Kensico Reservoir basin, a total of ten projects have been signed to contract since the program's inception. Of the 1,038 acres eligible in the basin, the total number of acres acquired or under contract stands at 199 acres, or 19%. Of the 4,830 acres eligible in the top priority area in the Rondout Reservoir basin, the total number of acres acquired or under contract was raised to 2,676 acres (55%). Of the 12,645 acres eligible in West Branch Reservoir's top priority areas, the total number of acres acquired or under contract was raised to 8,219 acres (65%).

Partnership Programs

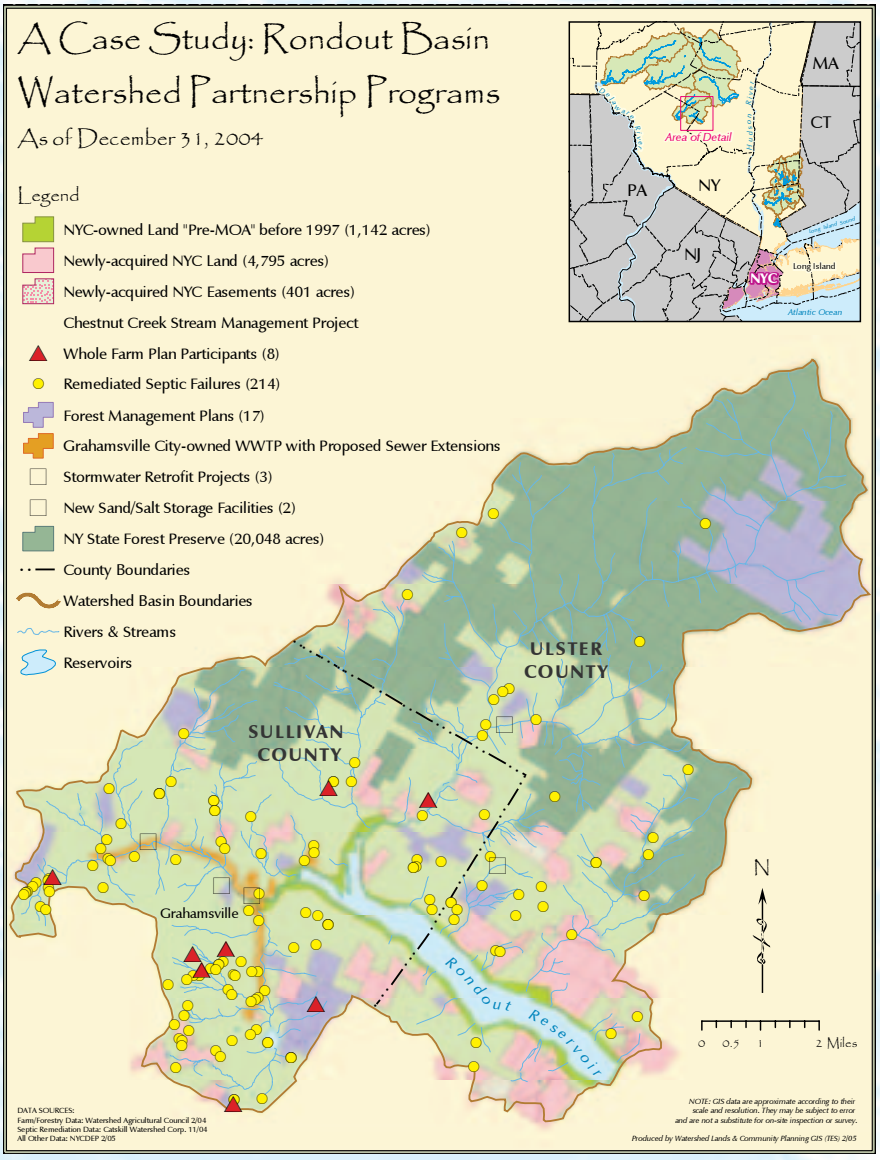
West of the Hudson River, many of the partnership programs are being administered by the Catskill Watershed Corporation (CWC), a non-profit corporation formed solely for this purpose. Together, CWC and DEP have implemented programs that remediated approximately 1,925 failing septic systems, completed construction of 43 winter road de-icing materials storage facilities, and funded construction of Best Management Practices (BMPs) to address existing stormwater runoff.

The Watershed Agricultural Program, funded by DEP and implemented by the Watershed Agricultural Council, has become a national model. More than 85% of watershed farms have joined the program, which develops BMPs to reduce agricultural pollution and enhance the economic viability of participating farms. The Program includes a watershed forestry component and the Conservation Reserve Enhancement Program (CREP). Under CREP, the United States Department of Agriculture (USDA) pays enhanced annual rental rates and other incentives to agricultural landowners to take environmentally sensitive lands out of production. The City and USDA each pay half the cost of treating those lands with conservation practices. There are, to date, a total of 1,624 acres of riparian forest buffers under contract, which is equivalent to approximately 150 protected stream miles. In addition, there are more than 150 acres of riparian buffers that have been approved by the Council that are in the CREP contract development pipeline. There are a total of 145 contracts, of which 114 are complete and have implemented all associated BMPs.

The map on the opposite page uses the Rondout Basin as a case study to show the progress of DEP's watershed partnership programs. The Rondout is one of the six reservoir basins west of the Hudson River that together make up the Catskill/Delaware watershed, which provides 90% of the New York City water supply.

These 10 programs are all conducted in partnership with various watershed constituents: landowners willing to sell their property to New York City; residents with failing septic systems; local government agencies; regional non-profit organizations; local farmers, foresters, and other business people; recreational users of newly-acquired City-owned lands. All of the programs are designed to protect water quality while promoting the economic vitality of the Catskill region.

DEP developed these watershed protection programs based on years of scientific study of existing and potential threats to water quality. By using multiple programs to address each potential pollutant category, DEP and its partners have created a multi-barrier approach to pollution prevention.



Wastewater Treatment Plant Upgrades

To provide highly advanced treatment of wastewater treatment plant effluent, more than 100 plants in the Watershed are being upgraded to include state of the art treatment. To date 95% of the West-of-Hudson flow has been upgraded. Of the remaining flow, 1.5% is in the construction phase and 3.5% in the design phase. In the Croton watershed East-of-Hudson (EOH), plants accounting for 19% of flow have been fully upgraded, 50% of flow upgrade is in the construction phase and 31% is in the design phase.

Improved Reliability

Upstate Capital Improvements

The City continued to implement a multi-year program to upgrade and improve its upstate water supply facilities, including gatehouses, aqueducts, water testing laboratories, and other facilities that are important to ensuring a safe and reliable supply of drinking water. Much of the water supply infrastructure is between 50 and 150 years old, and certain capital improvements are required to ensure the continuation of a reliable water supply for future generations of New Yorkers. DEP's long-term capital plan now includes more than $9 billion for water supply related improvements.

Catskill/Delaware UV Facility

EPA is proposing to adopt new regulations in 2005, specifically the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), to improve control of microbial pathogens. In preparation for the new rule, New York City has begun design of an ultraviolet plant for the Catskill/Delaware system. When built, this plant will provide an additional barrier of microbiological protection by inactivating potentially harmful organisms such as *Cryptosporidium* or *Giardia*. This treatment will supplement DEP's existing microbial disinfection programs. In November 2004, DEP issued the final Environmental Impact Statement (EIS) for the Catskill/Delaware Ultraviolet Light Facility. The document describes the proposed project at the Eastview Site in the Town of Mount Pleasant, New York.

Croton Filtration Plant

The City's goals are to ensure that Croton system water is at all times protected against microbiological contamination, is aesthetically pleasing, and meets all drinking water quality standards. The City is, therefore, proceeding with the design and construction of a filtration plant for Croton system water, pursuant to the terms of a November 1998 federal court Consent Decree entered into with the United States and the State of New York. The filtration facility is expected to reduce color levels in the Croton system water, reduce the risk of microbiological contamination, reduce disinfection by-product levels and ensure compliance with stricter water quality standards.

The Consent Decree, as modified in May 2002, required the City to evaluate and choose between three potential sites for the filtration plant: two in the Bronx, at the Mosholu Golf Course or along the Harlem River in the vicinity of Fordham Road; and one at Eastview in Westchester County. The Mosholu Golf Course site lies within Van Cortlandt Park, a public park in the Bronx. The City sought State legislation authorizing the alienation of the Mosholu Golf Course site for the purpose of constructing, operating and maintaining a Croton filtration plant. In July 2003, after passage by the State Legislature, the Governor approved such legislation and signed it into law. A final Supplemental Environmental Impact Statement comparing the three sites was released on June 30, 2004, which identified the Mosholu Golf Course site as the preferred site for the facility. On September 28, 2004, the City issued a Notice to Proceed to begin the first phase of construction of the filtration plant, and work was begun under the site preparation contract.

The City remains committed to maintaining a comprehensive watershed protection program for the Croton system.

Until DEP begins to filter Croton water, we are 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

Construction of City Tunnel No. 3, one of the largest capital construction projects in New York City's history, began in 1970. Tunnel No. 3 is expected to enhance and improve the City's water delivery system, and allow for inspection and repair of City Tunnels No. 1 and 2 for the first time since they were put into service in 1917 and 1937, respectively. The 13-mile Stage 1 section 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 consists of a 5.5-mile section in Brooklyn that connects to a 5-mile Queens leg. These were completed in May of 2001. Currently, supply shafts are under construction that will feed water from this new tunnel section to the distribution system. It is anticipated that the Brooklyn/Queens section, which will deliver water to Staten Island, Brooklyn and Queens, will be activated by 2009. Tunneling on the Manhattan portion of Stage 2 began in 2003, and the Manhattan leg is expected to begin water delivery by 2012. Additionally, the conceptual planning work for Stage 3, now called the Kensico-City Tunnel (KCT), was completed in October 2003. The KCT involves construction of a 16-mile long section, extending from the Kensico Reservoir to a valve chamber in the Bronx. When completed, the KCT will be able to deliver water directly from Kensico Reservoir to Tunnel No. 3. Construction of Tunnel No. 3 is expected to be completed by 2020, encompass 60 miles and cost approximately $6 billion.

Groundwater System Enhancements

In the late 1990s, after purchasing the wells in southeastern Queens and assuming responsibility for the delivery of drinking water to the community, DEP embarked upon a broad program to integrate New York City's surface water supply from the City's upstate reservoirs with the groundwater supplied by the aquifer system below southeastern Queens. As part of the Brooklyn-Queens Aquifer Feasibility Study, DEP continued improvements to the groundwater system in 2004. Most significantly, DEP continued developing plans to build a treatment plant at Station 6 in Jamaica, and continued investigating the use of the Lloyd Aquifer for water storage. More information about the groundwater system can be found at www.nyc.gov/dep/groundwater.

Station 6 Groundwater Treatment Plant

DEP continued developing plans for a new groundwater treatment plant to replace DEP's existing facility located at Station 6 in Jamaica, Queens. This state-of-the-art facility will produce high quality drinking water and control groundwater flooding while providing educational resources and community meeting space. Station 6 will provide up to 10 million gallons per day of drinking water, with the potential to expand to 12 million gallons per day in the future. Construction will not begin until 2008 at the earliest.

As part of the Station 6 project, DEP has implemented a comprehensive community outreach program. This ongoing program includes small group meetings, large public forums, distribution of informational materials, and a Citizens Advisory Committee that meets on a monthly basis.

Aquifer Storage and Recovery

In addition to improving the quality of groundwater from Queens' aquifers through filtration, DEP is investigating the possibility of improving the groundwater supply by using the underground Lloyd Aquifer to provide additional storage for surface water. Working with regional agencies, DEP is developing an Aquifer Storage and Recovery (ASR) project. Currently, the Lloyd Aquifer's resources are depleting, mainly due to a rate of consumption by Long Island communities that is greater than the aquifer's natural rate of recharge. ASR would help to replenish the Lloyd Aquifer by injecting surplus water from New York City's upstate surface water reservoirs into the aquifer. This water would be stored in the aquifer and, when necessary, the City could extract a portion of this potable water to supplement its drinking water supply.

This process will benefit both the City and communities on Long Island. New York City will benefit from a new in-City drinking water supply - created without many of the attendant construction costs and community disturbances involved in traditional capital projects and, most importantly, allows us to have a temporary alternate water supply in case of an emergency–such as a drought or the need to shut down one of the City's three aqueducts. The injection process will have an added benefit in that it will recharge the aquifer. This recharging process would help to stabilize the aquifer's salt front, protecting Long Island beach communities' underground drinking water from salinization, which is a long-term threat to their supply.

The West Side Corporation Site

The West Side Corporation (WSC), located at 107-10 180th Street in Jamaica, was a dry cleaning storage and distribution center that handled large amounts of the chemical perchloroethylene (a.k.a. "perc" or PCE) between 1969 and 1982. When the business closed, it left behind spills and storage tank leaks that resulted in the seepage of hazardous chemicals, including "perc," through the soil and into the groundwater. Today, DEP and the New York State Department of Environmental Conservation (NYS DEC) are working together to clean up the groundwater at this site.

Water Treatment

All surface water and groundwater entering New York City's distribution system is treated with chlorine, fluoride, food grade phosphoric acid and, in some cases, sodium hydroxide. New York City uses chlorine to meet the New York State Sanitary Code and federal Safe Drinking Water Act disinfection requirements. Fluoride, at a concentration of one part per million, is added to help prevent tooth decay and has been added since 1966 in accordance with the New York City Health Code. 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.

A sequestering phosphate is applied at several wells to prevent the precipitation of naturally occurring minerals, mostly iron and manganese, in the distribution mains and customers' household piping. Air stripper facilities operate at several wells to remove volatile organic chemicals.

During 2004, fluoride was not continuously supplied in the Croton System due to upgrades and repair work on the fluoride feed system. The New York City Department of Health and Mental Hygiene (DOHMH) agreed that a brief interruption of fluoridation to the Croton System would not have a significant impact on dental health.

Operational Changes

The Croton System experiences seasonal water quality problems associated with elevated color levels, resulting from naturally occurring minerals and organic matter present in the water. Although this condition is aesthetic and not health-related, it may require the City to discontinue use of Croton System water while color levels remain elevated. Because of elevated color levels, the Croton System was removed from service September 12, 2003 through January 22, 2004. As part of a multi-year program to inspect and rehabilitate the New Croton Aqueduct, the Croton System was again removed from service on September 30, 2004 to conduct maintenance work, and remained off line through the end of the calendar year. New York City residents receive water from the Catskill/Delaware System during these changes in service.

In the Groundwater system Wells 5, 5A, 23A, 32, 43A, 50A and 55 were online in 2004. The pumping of water at the first six of the aforementioned wells was started and stopped on a daily basis, depending upon the water demand of the service area. In addition, on October 30, 2004 the motor failed at Well 5A and it remained off-line through the end of the calendar year; Well 32 was taken out of service August 23, 2004 due to a malfunction of the well pump and returned to service November 5, 2004 after the pump was replaced; and Well 43A was taken out of service November 3, 2004 in order to replace the old pump and remained off-line through the end of the calendar year. Lastly, after the installation of a Granular Activated Carbon (GAC) Filter system, Well 55 was run for a period of two weeks beginning December 24, 2003 through January 9, 2004. The well was run in order to obtain a Completed Works Approval (required after any system modification) from the New York City Department of Health and Mental Hygiene, which was given in August 2004. Well 55 will be used in the future only during drought emergencies.

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 most health-related State and federal drinking water standards except for haloacetic acids (HAA5) in the Croton System. Color, an aesthetic condition in the Croton System occasionally may exceed the standard. DEP also received a Notice of Violation (NOV) from NYS DOH for failure to accurately report monitoring of at-the-tap lead concentrations for two consecutive monitoring periods (discussed in more detail below). To be in compliance with the Lead and Copper Rule, water suppliers must have two consecutive monitoring periods where at the tap lead and copper levels are at or below the Actions Levels of 15 µg/L and 1.3 mg/L respectively. Even though in 2004 at-the-tap concentrations for lead and copper fell below their Action Levels, because of the NOV, DEP will have to meet the Action Levels for at least a second monitoring period to come back into compliance with the Rule.

Drinking Water Supply Sampling Station

Drinking Water Monitoring

DEP monitors the water in the distribution system, the upstate reservoirs and feeder streams, and the wells that are the sources for our supply. Water quality is monitored continuously as the water enters the distribution system, and is regularly tested at sampling points throughout the entire City. DEP conducts analyses for a broad spectrum of microbiological, chemical, and physical measures of quality. In 2004, DEP collected more than 33,500 samples from the City's distribution system and performed approximately 430,600 analyses.

DEP conducts most of its distribution water quality monitoring at approximately 1000 fixed sampling stations throughout the City. These stations, which you may have seen in your neighborhood, allow DEP to collect water samples throughout the distribution system in an efficient and sanitary manner.

On December 14, 2004, due to a power outage, DEP failed to collect a 4-hour turbidity grab sample at a sampling location off the Catskill Aqueduct, representing untreated source water flowing from the Kensico Reservoir. The New York State Department of Health issued a violation for failure to meet monitoring requirements for turbidity over this 4 hour period. DEP came back into compliance when power was restored and routine sampling commenced following this brief interruption. Downstream sampling indicated that there were no increases in turbidity in the Catskill Aqueduct over this period.

Turbidity has no health effect. 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. Please pay special attention to the additional statement in this document regarding *Cryptosporidium*.

Test Results

The results of the tests conducted in 2004 on distribution water samples under DEP's Distribution System Monitoring Program are summarized in the tables in 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. Data are presented separately for the Catskill/Delaware, Croton, and Groundwater systems. Whether a particular user receives water from the Catskill/Delaware, Croton, or Groundwater supplies, or a mixture, depends on location, system operations, and consumer demand. Those parameters monitored but not detected in any sample are presented in a separate box under the tables. The State requires monitoring for some parameters less than once per year because the concentrations of these parameters do not change frequently. Accordingly, some of these data, though representative, are more than one year old.

Disinfection By-Products

In the first quarter of 2004, the Croton system violated the maximum contaminant level (MCL) for the group of disinfection by-products called haloacetic acids (HAA5) of 60 µg/L computed as an annual quarterly running average. Haloacetic acids are a group of chemicals that includes mono-, di-, and trichloroacetic acids and mono- and dibromoacetic acids. Haloacetic acids are formed in drinking water during treatment by chlorine, which reacts with certain acids that are in naturally-occurring organic material (e.g., decomposing vegetation such as tree leaves, algae or other aquatic plants) in surface water sources such as rivers and lakes. The amount of haloacetic acids in drinking water can change from day to day, depending on the temperature, the amount of organic material in the water, the amount of chlorine added, and a variety of other factors. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses. Chlorine is the most commonly used disinfectant in New York State. For this reason, disinfection of drinking water by chlorination is beneficial to public health.

New York State requires the following statement: *Some studies of people who drank chlorinated drinking water for 20 to 30 years show that long-term exposure to disinfection by-products (possibly including haloacetic acids) is associated with an increased risk for certain types of cancer. However, how long and how frequently people actually drank the water as well as how much haloacetic acids the water contained is not known for certain. Therefore, we do not know for sure if the observed increased risk for cancer is due to haloacetic acids, other disinfection by-products, or some other factor. The individual haloacetic acids dichloroacetic acid and trichloroacetic acid cause cancer in laboratory animals exposed to high levels over their lifetimes. Dichloroacetic acid and trichloroacetic acid are also known to cause other effects in laboratory animals after high levels of exposure, primarily on the liver, kidney and nervous system and on their ability to bear healthy offspring. Chemicals that cause effects in animals after high levels of exposure may pose a risk to humans exposed to similar or lower levels over long periods of time.*

Nitrate

In 2004, nitrate was detected in the Groundwater system at levels reaching 8.41 mg/L. Although this is not a violation of the nitrate MCL of 10 mg/L, the NYS Department of Health requires an educational statement about nitrate be included when levels between 5 mg/L and 10 mg/L are detected. In both the Croton and Catskill/Delaware systems nitrate levels remained below 1 mg/L.

The required statement follows: *Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. If you are caring for an infant, you should ask for advice from your health care provider.*

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 buildings or homes. Under the federal Lead and Copper Rule (LCR) mandated at-the-tap lead monitoring is conducted at selected households located throughout the City. Based on the results of this monitoring, in 2004, the 90th percentile did not exceed 15 µg/L, the established standard or Action Level (AL) for lead. The at-the-tap monitoring results are also presented in a separate table.

In 2004 the New York State Department of Health issued DEP a Notice of Violation of the LCR. This notice of violation was in relation to DEP's reporting of past data collected under the LCR, specifically a failure to report all results and a failure to utilize all results to determine the 90th percentile concentrations, and a failure to collect samples during the period of June 1 to September 2004. The NOV required the City: to provide by the end of 2004, a monitoring plan, a schedule for annually replacing at least 7% of lead service lines; and to re-institute a lead public education program. DEP is currently in discussions with the NYC Department of Health and Mental Hygiene on the nature, timing, and implementation of requirements set forth by the Notice of Violation.

DEP has an active corrosion control program aimed at reducing lead absorption from service lines and internal plumbing. The data reported by DEP under the Lead and Copper Rule reflect that since the program began in 1992, the 90th percentile values for lead levels at the tap, at locations sampled for Rule compliance, have decreased from levels as high as 55 µg/L to approximately 14 µg/L. In addition, DEP offers a Free Residential Lead Testing Program which allows all New York City residents to have their tap water tested at no cost. The Free Residential Testing Program is the largest of its kind in the Nation: 65,000 sample collection kits have been distributed since the start of the program in 1992.

It is a New York State requirement that we make the following statement: *Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.*

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. To request a free kit to test for lead in your drinking water, call the City of New York's 24-hour Help-line at 311 or (212) NEW-YORK. Additional information is available from the EPA's Safe Drinking Water Hotline (800) 426-4791.

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 first chlorinated in the Catskill/Delaware and Croton Systems, respectively. Since 1992, DEP has modified its laboratory protocols twice to improve the Department's ability to detect both *Cryptosporidium* oocysts and *Giardia* cysts. These test methods, however, are limited in that they do not allow us to determine if organisms identified are dead or capable of causing disease.

In 2004, a total of 150 samples of Kensico Reservoir effluent and 70 samples of New Croton Reservoir effluent were collected and analyzed for *Cryptosporidium* oocysts and *Giardia* cysts using Method 1623 HV. Of the 150 Kensico Reservoir samples, 126 were positive for *Giardia* and 46 were positive for *Cryptosporidium*. Of the 70 New Croton Reservoir samples, 47 were positive for *Giardia* and 28 were positive for *Cryptosporidium*. DEP's *Cryptosporidium* and *Giardia* data from 1992 to the present, along with weekly updates, can be viewed on our web site at www.nyc.gov/dep/html/pathogen.html. As mentioned, detecting the presence of *Cryptosporidium* oocysts and *Giardia* cysts does not indicate whether these organisms are dead or potentially infectious.

While there is no evidence of cryptosporidiosis or giardiasis related 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. Most healthy individuals can overcome both of these diseases within a few weeks. 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.

According to the EPA and the Centers for Disease Control and Prevention (CDC), it is unclear how most cases of cryptosporidiosis or giardiasis in the United States are contracted. The relative importance of various risk factors is unknown. Risk factors include eating contaminated food, swallowing contaminated recreational water while swimming or camping, contact with animals, contact with human waste, certain sexual practices, and drinking contaminated water. Individuals who think they may have cryptosporidiosis or giardiasis should contact their health care provider.

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 Crohn's disease or 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.

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.

Water Conservation

The average single family household in New York City uses approximately 100,000 gallons of water each year, at a cost of $1.60 per 100 cubic feet of water (748 gallons), or about $214.00 each year. New York City is fortunate to have reasonably priced drinking water; however, everyone should do their part to conserve this precious 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 on watering lawns and sidewalks from April 1 to October 31 between the hours of 11 AM and 7 PM. It is illegal to open fire hydrants at any time. Additionally, you can help save water by ordering a Home or Apartment Water Saving Kit by calling 311. If you are an apartment building owner/manager or a homeowner, you can obtain a free leak survey. Call DEP's Leak Survey contractor at (718) 326-9426 for information.

Drinking Water Quality Control Distribution Laboratory

Definitions

Action Level (AL):
The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow. An exceedence 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.

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 90th 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 90th 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^{-3} grams per liter)
NA = Not Applicable
ND = Lab analysis indicates parameter is not present
NDL = No Designated Limit
NTU = Nephelometric Turbidity Units
pCi/L = picocurie per liter (a measure of radioactivity)
µg/L = micrograms per liter (10^{-6} grams per liter)
µmho/cm = micromhos per centimeter

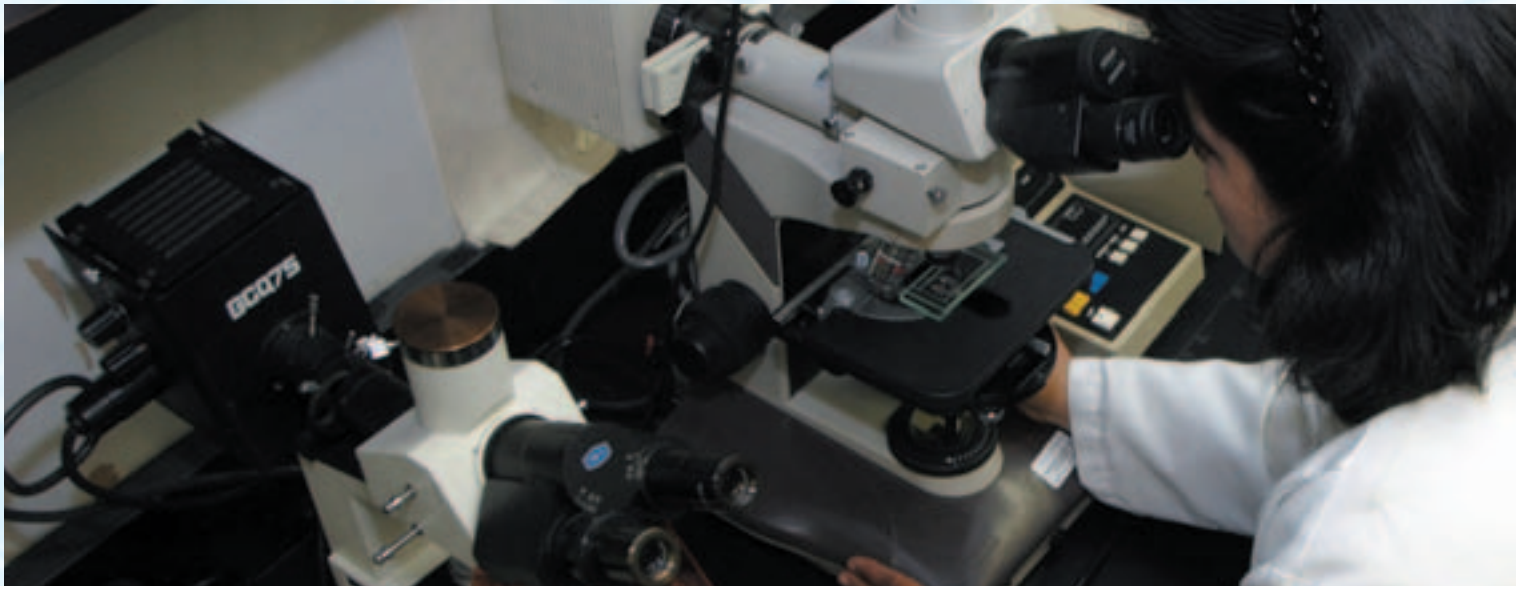
New York City
Drinking Water Quality Testing Results 2004

Detected Parameters

PARAMETERS	NYS DOH MCL	US EPA MCLG	CATSKILL/DELAWARE SYSTEM			CROTON SYSTEM			GROUNDWATER SYSTEM			SOURCES IN DRINKING WATER
			# SAMPLES	RANGE	AVERAGE	# SAMPLES	RANGE	AVERAGE	# SAMPLES	RANGE	AVERAGE	
CONVENTIONAL PHYSICAL AND CHEMICAL PARAMETERS												
Alkalinity (mg/L $CaCO_3$)	-		336	7.9 - 21.9	12.1	62	29.2 - 59.7	51.4	117	17.4 - 185.4	72.7	Erosion of natural deposits
Aluminum (µg/L)	50 - 200 [1]		256	6 - 61	17	43	ND - 20	5	20	ND - 24	9	Erosion of natural deposits
Barium (mg/L)	2	2	256	0.01 - 0.03	0.02	43	0.02 - 0.04	0.03	20	0.01 - 0.03	0.02	Erosion of natural deposits
Calcium (mg/L)	-		352	4.7 - 11.7	5.6	45	13.1 - 27.8	23.7	120	7.8 - 72.8	29.9	Erosion of natural deposits
Chloride (mg/L)	250		302	7 - 26	10	46	32 - 74	65	103	10 - 98	45	Naturally occurring; road salt
Chlorine Residual, free (mg/L)	4 [2]		10141	0.00 - 2.20	0.54	596	0.01 - 1.09	0.48	358	0.00 - 1.42	0.58	Water additive for disinfection
Color - distribution system (color units - apparent)	-		9031	3 - 55	6	327	5 - 23	7	358	1 - 19	5	Presence of iron, manganese, and organics in water
Color - entry points (color units - apparent)	15 [3]		1113	5 - 13	6	269	5 - 25	8	221	1 - 20	5	Iron and manganese; or organic sources, such as algal growth
Copper (mg/L)	1.3 [4]	1.3	352	0.004 - 0.23	0.01	54	0.01 - 0.03	0.02	120	0.002 - 0.27	0.02	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Corrosivity (Langelier index)	0 [1, 5]		235	-3.05 to -1.58	-2.44	33	-1.71 to -0.8	-1.21	42	-2 to -0.02	-0.99	
Fluoride (mg/L)	2.2 [3]		1375	ND - 1.1	0.8	273	ND - 0.9	0.5	355	0.1 - 1.7	0.9	Erosion of natural deposits; water additive which promotes strong teeth; runoff from fertilizer
Hardness (mg/L $CaCO_3$)	-		274	16 - 45	20	43	49 - 105	93	118	31 - 321	133	Erosion of natural deposits
Hardness (grains/gallon[US]$CaCO_3$)[6]	-		274	0.9 - 2.6	1.1	43	6.7 - 6.1	5.4	118	1.8 - 18.5	7.7	Erosion of natural deposits
Iron (µg/L)	300 [7]		287	20 - 540	50	57	30 - 310	70	108	10 - 1400	300	Naturally occurring
Lead (µg/L)	15 [4]	0	352	ND - 17	0.6	55	ND - 2	0.6	120	ND - 6	0.6	Corrosion of household plumbing systems; erosion of natural deposits
Magnesium (mg/L)	-		274	1.0 - 4.0	1.3	43	4.0 - 8.9	7.9	118	2.7 - 36.0	14	Erosion of natural deposits
Manganese (µg/L)	300 [7]		287	6 - 223	22	57	15 - 261	43	108	5 - 579	54	Naturally occurring
Nitrate (mg/L nitrogen)	10	10	302	0.15 - 0.80	0.21	46	0.28 - 0.62	0.48	103	0.21 - 8.41	3.24	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (mg/L nitrogen)	1	1	235	ND - 0.007	0.002	33	ND - 0.005	0.001	37	ND - 0.005	0.001	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
pH (pH units)[8]	6.5 - 8.5 [1]		10144	6.9 - 8.4	7.2	596	7.0 - 7.7	7.3	358	6.4 - 8.7	7.4	
Phosphate, Ortho- (mg/L)	-		10137	0.3- 3.3	2.1	596	1.6 - 2.6	2	358	0.5 - 2.9	2	Water additive for corrosion control
Phosphate, Total (mg/L)	-		-	-	-	-	-	-	22	3.5 - 6.4	4.7	Water additive for corrosion control
Potassium (mg/L)	-		256	0.5 - 0.9	0.6	43	1.2 - 2.4	2.1	20	0.7 - 2.3	1.2	Erosion of natural deposits
Silica [silicon oxide] (mg/L)	-		254	1.9 - 4.8	2.9	33	3.8 - 6.8	5.6	83	4.1 - 22.6	12.3	Erosion of natural deposits
Sodium (mg/L)	NDL[9]		256	6 - 14	8	43	18 - 37	32	42	10 - 49	29	Naturally occurring; road salt; water softeners; animal waste
Specific Conductance (µmho/cm)	-		10144	66 - 201	81	596	206 - 427	365	358	136 - 756	331	
Strontium (µg/L)	-		256	20 - 40	20	43	40 - 90	70	20	30 - 140	60	Erosion of natural deposits
Sulfate (mg/L)	250		302	4.9 - 11.4	6.3	46	8.3 - 14.7	12	103	6.2 - 95.2	36.4	Naturally occurring
Temperature (°F)	-		10141	34 - 79	54	596	36 - 67	52	358	37 - 74	57	
Total Dissolved Solids (mg/L)	500 [1]		235	30 - 82	47	33	100 - 236	186	42	74 - 402	228	Metals and salts naturally occurring in the soil; organic matter
Total Organic Carbon (mg/L carbon)	-		261	1.0 - 2.0	1.5	70	1.4 - 2.8	2.3	20	ND - 1.6	0.9	Organic matter naturally present in the environment
Turbidity[10] - distribution system (NTU)	5 [11]		9031	0.7 - 1.2	0.9	327	0.6 - 1.6	1.0	358	0.4 - 0.9	0.7	Soil runoff
Turbidity[10] - entry points (NTU)	1 [12]		-	-	-	269	-	1.0	-	-	-	Soil runoff
UV 254 Absorbency (cm^{-1})	-		241	0.022 - 0.051	0.033	60	0.041 - 0.069	0.053	20	0.011 - 0.044	0.026	Organic matter naturally present in the environment
Zinc (mg/L)	5		276	ND - 0.033	0.002	53	ND - 0.006	0.002	108	ND - 0.478	0.132	Naturally occurring
MICROBIAL PARAMETERS												
Total Coliform Bacteria (% of samples positive/month)	5%	0	10137	-	0.6%	578	-	4.4%	358	-	ND	Naturally present in the environment
E. coli (CFU/100 mL)	[13]	0	10137	-	3	578	-	ND	358	-	ND	Human and animal fecal waste
Heterotrophic Plate Count (CFU/mL)	TT	-	5317	ND - 273	ND	369	ND - 84	1	202	ND - 10	ND	Naturally present in the environment

LEAD AND COPPER RULE SAMPLING AT RESIDENTIAL WATER TAPS: July 2003 - November 2004

PARAMETERS	NYS DOH AL	US EPA MCLG	# SAMPLES	RANGE	90th PERCENTILE VALUES	# SAMPLES EXCEEDING AL	SOURCES IN DRINKING WATER
Copper (mg/L)	1.3	1.3	128	0.01 - 0.36	0.26	0	Corrosion of household plumbing systems
Lead (µg/L)	15	0	128	ND - 36	14	11	Corrosion of household plumbing systems



Detected Parameters *(continued)*

PARAMETERS	NYS DOH MCL	US EPA MCLG	CATSKILL-DELAWARE SYSTEM			CROTON SYSTEM			GROUNDWATER SYSTEM			SOURCES IN DRINKING WATER
			# SAMPLES	RANGE	AVERAGE	# SAMPLES	RANGE	AVERAGE	# SAMPLES	RANGE	AVERAGE	
ORGANIC CONTAMINANTS												
Disinfection By-Products detected:												
Bromochloroacetic acid (µg/L)	50		226	ND - 2	1	20	1 - 4	2	7	ND - 2	1	By-product of drinking water chlorination
Chloral Hydrate (µg/L)	50		16	2.0 - 13.2	5.8	3	3.2 - 10.0	7.6	-	-	-	By-product of drinking water chlorination
Chloropicrin (µg/L)	50		16	0.3 - 0.8	0.5	3	0.3 - 1.0	0.6	-	-	-	By-product of drinking water chlorination
Haloacetic acid 5 (HAA5) (µg/L)	60 [14]		226	22 - 76	51	20	38 - 99	66	7	6 - 56	32	By-product of drinking water chlorination
Haloacetonitriles (HANs) (µg/L)	50		16	1.3 - 4.4	2.6	3	2.9 - 9.3	6.3	-	-	-	By-product of drinking water chlorination
Halogenated ketones (HKs) (µg/L)	50		16	2.0 - 4.9	3.1	3	2.2 - 8.3	5.1	-	-	-	By-product of drinking water chlorination
Total Organic Halogen (µg/L)	-		235	ND - 385	180	33	163 - 499	256	20	ND - 187	91	By-product of drinking water chlorination
Total Trihalomethanes (µg/L)	80 [14]		252	14 - 62	41	43	37 - 67	56	56	ND - 52	28	By-product of drinking water chlorination
Principal Organic Contaminants detected:												
Carbon Tetrachloride (µg/L)	5	0	257	ND	ND	44	ND	ND	56	ND - 0.6	< 0.5	Discharge from chemical plants and other industrial activities
Dichlorodifluoromethane (µg/L)	5		257	ND	ND	44	ND	ND	56	ND - 1.8	< 0.5	Refrigerant; aerosol propellant; foaming agent
Tetrachloroethylene (µg/L)	5	0	257	ND	ND	44	ND	ND	56	ND - 2.6	0.6	Discharge from dry cleaners
Trichloroethene (µg/L)	5	0	257	ND	ND	44	ND	ND	56	ND - 1.1	< 0.5	Residual of cleaning solvents and metal degreasers
Unspecified Organic Chemicals detected:												
Methyl tert-butyl ether (MTBE) (µg/L)	50		257	ND	ND	44	ND	ND	56	ND - 1	< 0.5	Additive to gasoline in the water

Undetected Parameters

UNDETECTED CONVENTIONAL PHYSICAL AND CHEMICAL PARAMETERS

Antimony, Arsenic, Asbestos [15], Beryllium, Bromide, Cadmium, Chlorate, Chromium, Cyanide, Foaming Agents, Gross Alpha [16], Gross Beta [16], Lithium, Mercury, Nickel, Selenium, Silver, ^{90}Strontium [16], Thallium, Tritium (^{3}H) [16]

UNDETECTED ORGANIC CONTAMINANTS

Principal Organic Contaminants not detected:

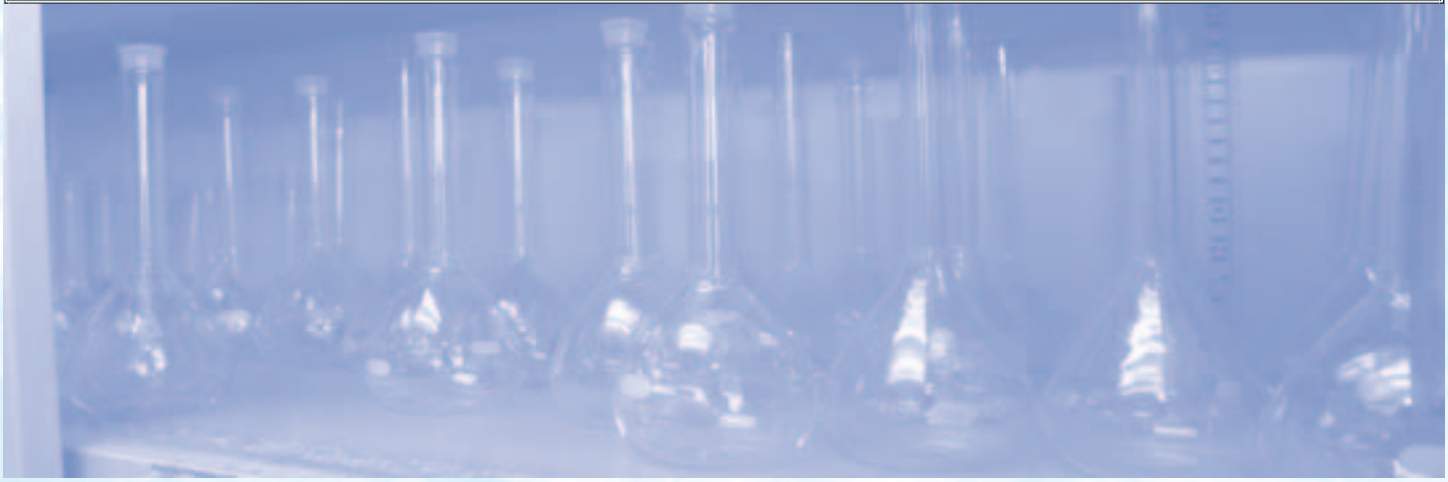
Benzene, Bromobenzene, Bromochloromethane, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Chlorobenzene, Chloroethane, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,1-Dichloroethane, 1,2-Dichloroethane,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

Specified Organic Contaminants not detected:

Alachlor, Aldicarb (Temik), Aldicarb sulfone, Aldicarb sulfoxide, Aldrin, Atrazine, Benzo(a)pyrene, Butachlor, Carbaryl, Carbofuran (Furadan), Chlordane, 2,4-D, Dalapon, 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, Metolachlor, Metribuzin, Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorobiphenyls [PCBs], Propachlor, Simazine, Toxaphene, 2,4,5-TP (Silvex), 2,3,7,8-TCDD (Dioxin), Vinyl chloride

Unspecified Organic Chemicals not detected:

Acenaphthene, Acenaphthylene, Acetochlor, Acetone, Acifluorfen, Anthracene, Bentazon, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[g,h,i]perylene, a-BHC, b-BHC, d-BHC, Bromacil, Butylbenzylphthalate, Caffeine, a-Chlordane, g-Chlordane, Chlorobenzilate, Chloroneb, Chlorothalonil (Draconil, Bravo), Chlorpyrifos (Dursban), Chrysene, 2,4-DB, DCPA (total mono & diacid degradate), p,p'DDD, p,p'DDE, p,p'DDT, Diazinon, Dibenz[a,h]anthracene, Di-n-Butylphthalate, 3,5-Dichlorobenzoic acid, Dichlorprop, Dichlorvos (DDVP), Diethylphthalate, Dimethoate, Dimethylphthalate, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Di-N-octylphthalate, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin aldehyde, EPTC, Fluoranthene, Fluorene, Indeno[1,2,3-cd] pyrene, Isophorone, Malathion, Methiocarb, Molinate, Naphthalene, trans-Nonachlor, Paraquat, Parathion, Permethrin, Phenanthrene, Prometryn, Propoxur (Baygon), Pyrene, 2,4,5-T, Thiobencarb, Terbacil, Trifluralin



Footnotes

(1) 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.

(3) Determination of MCL violation: If a sample exceeds the MCL, a second sample must be collected from the same location within 2 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 following table.

(5) 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. Values in the groundwater system above the MCL are not a violation because the water at particular wells is treated, as allowed by the State, to meet aesthetic concerns.

(8) The average for pH is the median value.

(9) 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.

(10) 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.

(11) This MCL for turbidity is the monthly average rounded off to the nearest whole number. Data presented are the range and average of monthly averages.

(12) This MCL only applies to the Croton System. The value presented is the highest monthly average for 2004.

(13) 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.

(14) USEPA MCLs for HAA5 and TTHMs are the calculated quarterly running average. Data presented are the range of individual sampling results and the highest running quarterly average.

(15) NYSDOH has issued a waiver for asbestos monitoring in the Groundwater System since no asbestos cement pipes are used anywhere in the distribution system.

(16) Radionuclide data presented were collected in 2001.

Highlighted and **bolded** value indicates a violation or exceedence occurred.

Exceedences

Color:

In the Croton System, there was one color violation at the entry point 33450 on 9/28/04. Color has no health effects unless detected in very high concentrations. In some instances, color may be objectionable to some people at as low as 5 units. Its presence is aesthetically objectionable and suggests that the water may need additional treatment.

Iron:

In the Catskill/Delaware System, the MCL for iron was exceeded on 11/9/2004 at site 33450 with a value of 310 µg/L, on 12/10/2004 at site 26950 with a value of 540 µg/L, and twice at site 77350 on 3/11/2004 with a value of 500 µg/L and on 11/17/2004 with a value of 320 µg/L. In the Croton System, the MCL for iron was exceeded on 2/26/2004 at site 33950 with a value of 310 µg/L. Iron has no health effect. At 1,000 µg/L, a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 µg/L, lower than those detectable to taste buds. Therefore, the MCL of 300 µg/L represents a reasonable compromise as adverse effects are minimized at this level. Many multivitamins may contain 3000 to 4000 µg/L of iron per capsule.

Manganese:

In the Catskill/Delaware System, the MCL for total iron and manganese of 500 µg/L was exceeded on 3/11/2004 at site 77350 with a value of 500 µg/L for iron and 207 µg/L for manganese, on 11/9/2004 at site 33450 with a value of 310 µg/L for iron and 223 µg/L for manganese, and on 12/10/2004 at site 26950 with a value of 540 µg/L for iron and 740 µg/L for manganese. In the Croton System, the MCL for total iron and manganese of 500 µg/L was exceeded on 2/26/2004 at site 33950 with a value of 310 µg/L for iron and 261µg/L for manganese. The Food and Nutrition Board of the National Research Council determined an estimated safe and adequate daily dietary intake of manganese to be 2000-5000 µg/L for adults. However, many people's diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetables or are vegetarian. The infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and manganese.

Excess manganese produces a brownish color in laundered goods and impairs the taste of tea, coffee, and other beverages. Elevated concentrations may cause a dark brown or black stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes. These may slough off, causing brown blotches on laundered clothing or black particles in the water.

Haloacetic acid 5 (HAA5):

In the Croton System, the MCL for HAA5 was exceeded during the first quarter of 2004. Please see the Disinfection By-Products section of this report for detailed information.

Frequently Asked Questions

Does my drinking water contain fluoride?

Yes, all New York City tap water contains fluoride. In accordance with Article 141.08 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 part per million (ppm) fluoride. Fluoridation began in 1966.

Is New York City's water "hard"?

Hardness is a measure of dissolved calcium and magnesium in the water. The less calcium and magnesium in the water ("soft" water), the easier it is to create lather and suds. Depending upon location, the hardness can be 1.0 grain/gallon ($CaCO_3$) for the Catskill/Delaware System, and 5 grains/gallon for the Croton System. New York City's water is predominantly "soft."

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, microbubbles 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 the 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 best way.)
- 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.

The aerators in my home are clogging with pieces of a small, whitish material. What is causing this to occur?

This problem may be accompanied by a significant drop in water pressure at the affected faucet in addition to a decrease in your hot water supply. The culprit is the hot water heater's "dip-tube." This is a long internal tube that delivers cold water to the bottom of the hot water heater tank. The tube, which is composed of polypropylene, may disintegrate. The problem affects approximately 16 million water heaters manufactured between 1993 and 1996.

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 2 - 3 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. In addition, brown water can result from street construction or water main work being done in the 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. Also, bottled water costs up to 1,000 times more than the City's drinking water. Consumers should look for the NYSHD CERT# on labels of bottled water, and consumers can access additional information on New York State certified bottled water facilities within the entire United States that can be sold within New York State at http://www.health.state.ny.us/nysdoh/water/bottled.htm.

The DOs & DON'Ts of Water Conservation

In or out of a drought, every New Yorker can save hundreds of gallons of water each week by following these simple water-saving tips.

BATHROOM

- ✔ Do take short showers and save 5 to 7 gallons a minute.
- ✔ Do fill the tub halfway and save 10 to 15 gallons.
- ✔ Do install water-saving toilets, showerheads and faucet aerators. Place a plastic bottle filled with water in your toilet tank if you can't switch to a low flow toilet.
- ✖ Don't run the water while shaving, washing your hands or brushing your teeth. Faucets use 2 to 3 gallons a minute.
- ✖ Don't use the toilet as a wastebasket, and don't flush it unnecessarily.

KITCHEN & LAUNDRY

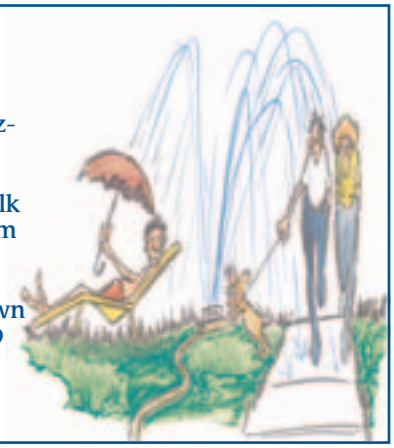
- ✔ Do run the dishwasher and washing machine only when full. Save even more by using the short cycle.
- ✔ Do install faucet aerators.
- ✖ Don't let the water run while washing dishes. Kitchen faucets use 2 to 3 gallons a minute. Filling a basin only takes 10 gallons to wash and rinse.
- ✖ Don't run water to make it cold. Have it chilled in the refrigerator, ready to drink.

EVERYWHERE

- ✔ Do repair leaky faucets and turn taps off tightly. A slow drip wastes 15 to 20 gallons each day.
- ✖ Don't open fire hydrants.

OUTDOORS

- ✔ Do use a self-closing nozzle on your hose.
- ✖ Don't water your sidewalk or driveway - sweep them clean.
- ✖ Don't overwater your lawn or plants. Water before 9 a.m. or after 7 p.m.



Do share this information with family and friends.

REPORT LEAKS & WATER WASTE.
Call 311

Visit DEP's Web site at: www.nyc.gov/dep

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NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP
Michael R. Bloomberg, Mayor
Emily Lloyd, Commissioner

Contact Us

For a copy 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. TTY services are available by calling (212) 504-4115.

For more information on *Cryptosporidium* and *Giardia*, please contact the Parasitic Disease Surveillance Unit of the New York City DEP and New York City Department of Health and Mental Hygiene (DOHMH) at: (212) 788-4728 or call 311.

To contact DOHMH about other water supply health related questions call 311 or call the New York State Department of Health Bureau of Public Water Supply Protection at (212) 417-4883 or (845) 794-2045.

To report any pollution, crime or terrorism activity occurring both in-City and in the watershed, call 1-888-H2O-SHED (426-7433).

To view this 2004 Statement, announcements of public hearings, or other information, visit DEP's Web site at:

www.nyc.gov/dep

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.

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。

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New York City
Department of Environmental Protection
59-17 Junction Boulevard
Flushing, New York 11373-5108

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