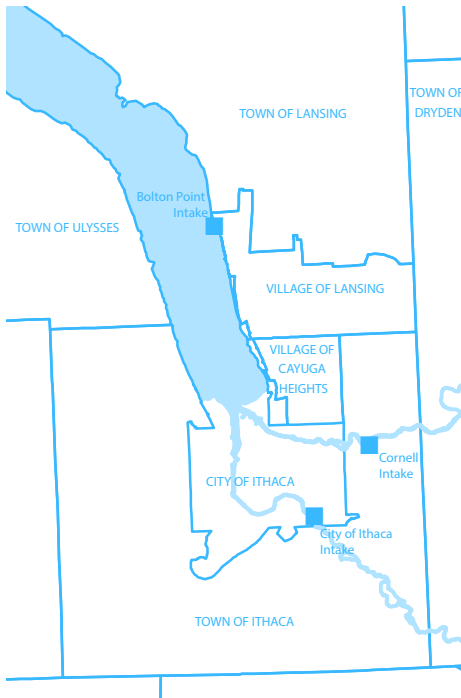


DRINKING WATER QUALITY REPORT

Bolton Point Municipal Water System

City of Ithaca Water System

Cornell University Water System



LOCATION AND DESCRIPTION OF WATER SERVICES

Bolton Point Municipal Water System (Bolton Point or BP-MWS)

Cayuga Lake is the source of water for the BP-MWS. The water intake is approximately 3 miles north of Stewart Park, 400 feet out from the eastern shore of Cayuga Lake and 65 feet below the surface of the lake. During 2013, the Bolton Point system did not experience any restriction of its water source. The system serves residents of the Towns of Dryden, Ithaca and Lansing, and the Villages of Cayuga Heights and Lansing and provides water to some City of Ithaca customers on Oakwood Lane, Hector Street, Warren Place, Sunrise Road and Richards Place. It provides water to other parts of the City and Cornell during emergencies and planned maintenance periods. Meetings of the Bolton Point Water Commission are held on the first Thursday after the first Tuesday of each month at 4:00 p.m. at the Bolton Point water treatment plant, 1402 East Shore Drive, Ithaca New York, 14850.

City of Ithaca Water System (City or CIWS)

Six Mile Creek is the source of water for the CIWS. Water is drawn from a reservoir in the creek and flows by gravity to the water plant. The forested watershed is 46.4 square miles in size. During 2013, the City system did not experience any restriction of its water source. The system serves most of the residents of the City of Ithaca and supplies Town of Ithaca customers along Taughannock Boulevard. Its treatment plant is located at 202 Water Street, Ithaca, New York, 14850. The Board of Public Works Committee of the Whole meets the first and third Wednesdays of the month. An additional voting meeting is held the second Wednesday of the month. These meetings begin at 4:30 p.m. Common Council meets the first Wednesday of the month at 7:00 p.m. All meetings are held in council chambers on the third floor of City Hall, 108 East Green Street, Ithaca, 14850.

Cornell University Water System (Cornell or CUWS)

Fall Creek is the source of water for the CUWS. The water intake is on Forest Home Drive near the Cornell Plantations Arboretum entrance. Fall Creek originates in Lake Como northeast of Ithaca and flows through a 125 square mile watershed. During 2013, the Cornell system did not experience any restriction of its water source. The system serves residents of the University's campus and supplies water to City customers in the Cornell Heights area and to Bolton Point-Town of Ithaca customers on the south side of Fall Creek in the Forest Home area. Its water treatment plant is located at 101 Caldwell Road, Ithaca, New York, 14850.

In the spirit of intermunicipal cooperation, the Bolton Point, City of Ithaca, and Cornell University water systems provide this unified Drinking Water Quality Report. These three interconnected water supply systems are the largest in Tompkins County and we want you to be fully informed about your water's quality and the need to protect its sources. This overview of last year's water quality includes details about where your water comes from, what it contains, and how it compares to State standards. If you have any questions about this report or your drinking water, please contact the appropriate person listed at the right. Or you may attend any of our regularly scheduled public meetings.

Contacts for additional information or to arrange a tour:

BOLTON POINT

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CITY OF ITHACA

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CORNELL UNIVERSITY

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A. WATER TREATMENT PROCESSES

The three water systems use the following conventional surface water treatment.

PRE-TREATMENT: Coagulating agents such as alum or polymers are added to the water to remove impurities and control taste and odor. A disinfectant is added to destroy microorganisms.

MIXING: The water is rapidly mixed to distribute the treatment chemicals evenly.

COAGULATION AND FLOCCULATION: The water flows into large basins where the coagulants react with impurities in the water (coagulation) causing them to form larger, heavier particles called floc (flocculation).

SEDIMENTATION: Flocculated water flows into basins where the floc particles settle to the bottom, thereby removing impurities and chemicals from the water.

FILTRATION: Following the settling process, water flows through layers of anthracite coal, sand, and gravel where further removal of particulate impurities occurs.

POST-TREATMENT: Chlorine is added to inhibit bacterial growth in the distribution system, and the pH is adjusted to inhibit the corrosion of metal pipes and fixtures. The Cornell treatment plant adds an additional corrosion inhibitor.

B. HEALTH EFFECTS AND INDIVIDUALS AT-RISK

All 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 the water poses a health risk.

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, those with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water.

Environmental Protection Agency/ Center for Disease Control (EPA/CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium, giardia, and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791). No trace of either of these pathogens has been detected in previous testing of the treated water of Bolton Point, the City or Cornell. Individuals who think they may have one of these illnesses should contact their health care provider immediately. For additional information please contact the Tompkins County Health Department, 55 Brown Road, Ithaca, New York 14850 or by phone at 274-6688.

C. WATER QUALITY DATA

INTRODUCTION: The sources of drinking water (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. It also 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.

To ensure that tap water is safe to drink, the State and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Health Department and Federal Drug Administration regulations also establish limits for contaminants in bottled water, which must provide the same protection for public health.

In accordance with State regulations, the three systems routinely monitor your drinking water for numerous contaminants. Tables 3-5 show the analytical test results for contaminants that were detected. These results are compared to the applicable state guideline or maximum contaminant level (MCL). Table 6 shows the contaminants that were not detected in your water.

The State allows testing less frequently than once per year for some contaminants since the concentrations of these contaminants do not change frequently. Therefore some data, though representative, are more than one year old.

TOTAL COLIFORMS: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

LEAD AND COPPER: The three water systems were required to sample for lead in 2011. There were no violations of State standards.

SODIUM: People who are on severely restricted sodium diets should not drink water containing more than 20 mg/l of sodium.

Since the 2013 level of sodium in Bolton Point was 27 mg/l, Cornell water was 18 mg/l and the City of Ithaca's average level was 21 mg/l, customers on severely restricted sodium diets might wish to consult their health care providers. People who are on moderately restricted sodium diets should not drink water containing more than 270 mg/l of sodium. The sodium levels of the water from all three systems are well below this level.

During the course of the year, for maintenance purposes, or for emergency help, potable water is exchanged among the three water systems. If you wish to know if this occurred, the time periods, and the water volumes, please call your water supplier.

Required testing by the EPA for the Unregulated Contaminant Monitoring Rule #3 (UCMR3) was completed by the City and by Cornell in 2013. Information about the rule and the contaminants can be found on EPA website (epa.gov; search for UCMR3). The results for the City sampling can be found on the City website (www.cityofithaca.org) under the water department and by the AWQR. The results for Cornell sampling can be found on the Cornell Energy and Sustainability website. (<http://energyandsustainability.fs.cornell.edu/util/water/drinking/reports.cfm>)

HYDRILLA TREATMENT INFORMATION: Cayuga Lake was treated in 2013 with herbicides after the invasive species Hydrilla was located in Cayuga Inlet in 2011. All monitoring results for sampling related to the Hydrilla Eradication Program can be found at www.StopHydrilla.org.

COMMON WATER QUALITY DEFINITIONS

ALKALINITY is a measure of the capability of water to neutralize acids. Bicarbonates, carbonates and hydroxides are the most common forms of alkalinity.

HARDNESS is a measure of the calcium and magnesium content of natural waters. The harder the water, the greater the tendency to precipitate soap and to form mineral deposits. Alkalinity and hardness occur naturally due to the contact of water with minerals in the earth's crust.

pH indicates how acidic or alkaline a water sample is. A value of 7 is neutral, 0-6 is acidic and 8-14 is alkaline.

TOTAL ORGANIC CARBON (TOC) is a measure of the organic content of water. A high concentration of TOC in water may lead to high levels of disinfection by-products.

TURBIDITY is a measure of the cloudiness of water. It is an indication of the effectiveness of water treatment. NYS regulations require that treated water turbidity always be below 1 NTU (nephelometric turbidity unit). For filtered systems 95% of the composite effluent samples must be below 0.3 NTU.

D. GENERAL WATER INFORMATION

Table 1: General Water Data - 2013

| WATER SYSTEM PUBLIC WATER SUPPLY ID # | BP-MWS 5404423 | CIWS 0066600 | CUWS 5417680 |
|--|-------------------|-----------------|-----------------|
| Water Source | Cayuga Lake | Six Mile Creek | Fall Creek |
| Approximate population served | 30,000 | 30,000 | 31,000 |
| Number of service connections | 6,900 | 5,500 | 250 |
| Total production in 2013 (MG ¹) | 990.6 | 962 | 523 |
| Average daily withdrawal (MGD ²) | 2.783 | 2.64 | 1.482 |
| Average daily delivered (MGD) | 2.714 | 1.60 | 1.437 |
| Average daily lost (MGD) ³ | 0.069 | 1.04 | 0.045 |
| Annual charge per 1000 gal. | \$5.36* | \$6.35 | \$5.99 |

¹MG = million gallons

²MGD = million gallons per day

³The average daily loss includes water used to flush mains, fight fires and leakage.

*Average of the rates charged by the five member municipalities of the BP-MWS.

Table 2: General Water Quality Data - 2013

| ANALYTE | UNITS | BP-MWS ANNUAL AVER- AGE | CIWS ANNUAL AVER- AGE | CUWS ANNUAL AVER- AGE |
|---------------------------|-------|-------------------------------|-----------------------------|-----------------------------|
| pH (EP) | | 8.3 | 7.7 | 7.36 |
| Turbidity (EP) | NTU | 0.04 | 0.08 | 0.062 |
| Total Hardness | mg/l | 150 | 118 | 150 |
| Total Alkalinity | mg/l | 101 | 101 | 131 |
| Total Dissolved Solids | mg/l | NR | 178 | NR |
| Iron (soluble) | mg/l | NR | 0.04 | NR |
| Chlorine Residual (EP) | mg/l | 1.41 | 1.7 | 1.34 |
| Chlorine Residual (POU) | mg/l | 0.66 | 1.2 | 0.60 |
| Turbidity (POU) | NTU | 0.06 | 0.3 | 0.062 |
| Total Organic Carbon (EP) | mg/l | 1.9 | 1.9 | 1.6 |
| Dissolved Organic Carbon | mg/l | 2.0 | 1.9 | 1.83 |

NR = Not Required; EP = Entry Point; POU = Point of Use; Definitions of NTU and mg/l found with Tables 3 – 5.

E. DETECTED CONTAMINANTS

Notes and Definitions for Tables 3-5:

AL (action level): The concentration of a contaminant that, if exceeded, triggers additional treatment or other requirements that a water system must follow.

Lead and Copper: The maximum level values reported for lead and copper represent the 90th percentile of the samples taken. Testing for these metals is only required every three years. The three water systems collected samples in 2011 and will resample in 2014.

HAA5 (haloacetic acids): These are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. The regulated haloacetic acids, known as HAA5, are monochloroacetic, dichloroacetic, trichloroacetic, monobromoacetic, and dibromoacetic acids. The maximum level detected of HAA5 is the highest of the four quarterly running annual averages calculated during the year and is the basis of the MCL for these compounds.

Maximum Level Detected: The highest measurement detected for the contaminant during the year. For total THMs and HAA5

the maximum level detected is the highest of the four quarterly running annual averages during the year.

MCL (maximum contaminant level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

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

mg/l (milligrams per liter): Corresponds to one part in one million parts of liquid (parts per million, ppm).

Table 3: Detected Contaminants: Bolton Point Municipal Water System

| Contaminant | Units | Violation Y/N | Date of Sample | Maximum Level Detected (Range) | Regulatory Limit | MCLG | Likely Source of Contamination |
|-------------------------------------|-------|---------------|----------------|--------------------------------|------------------------------|------|---|
| Microbiological contaminants | | | | | | | |
| Turbidity | NTU | No | 4/28/13 | 0.109 | TT=<1 NTU | N/A | Soil runoff. |
| Turbidity samples | % | No | daily | 100% | TT=95% of samples <0.3NTU | N/A | Soil runoff. |
| Disinfection By-Products | | | | | | | |
| Total THMs | ug/l | No | 2013 | 70 (22-100) * | MCL = 80 | N/A | By-product of drinking water chlorination. |
| Total HAA5 | ug/l | No | 2013 | 17 (6.4-33) * | MCL = 60 | N/A | By-product of drinking water chlorination. |
| Chlorine Residual | mg/l | No | 2013 | 1.60 (0-1.60) | MRDL=4 | N/A | Due to drinking water chlorination. |
| Chlorite | mg/l | No | 2013 | 0.346 (.059-.710)** | MCL = 1.0 | 0.8 | By-product of drinking water chlorination |
| Inorganics | | | | | | | |
| Barium | mg/l | No | 11/21/13 | 0.030 | MCL=2 | 2 | Drilling wastes; discharge from metal refineries; erosion of natural deposits. |
| Chromium | mg/l | No | 11/21/13 | 0.0026 (lab detected in blank) | MCL=0.10 | N/A | Discharge from steel and pulp mills; erosion of natural deposits. |
| Copper | mg/l | No | 2011 | 0.110 (0.0097-0.45) | AL=1.3 | 1.3 | Household plumbing corrosion; erosion of natural deposits; wood preservatives. |
| Lead | ug/l | No | 2011 | 4.0 (ND-74) | AL=15 | 0 | Household plumbing corrosion; erosion of natural deposits. |
| Nickel | mg/l | No | 11/21/13 | 0.0019 | N/A | N/A | Discharge from steel and pulp mills, erosion of natural deposits. |
| Nitrate | mg/l | No | 11/21/13 | 0.77 | MCL=10 | 10 | Fertilizer runoff; septic tank leaching; sewage; erosion of natural deposits. |
| Sodium | mg/l | No | 11/21/13 | 27 | See Water Quality, Section C | N/A | Naturally occurring; road salt; animal waste; water softeners; water treatment chemicals. |
| Radioactive | | | | | | | |
| Gross Alpha | pCi/l | No | 11/06/08 | -0.37 | MCL=15 | 0 | Erosion of natural deposits. |
| Radium-226 | pCi/l | No | 11/06/08 | 0.0989 | MCL=15 | 0 | Erosion of natural deposits. |
| Radium-228 | pCi/l | No | 11/06/08 | 0.394 | MCL=15 | 0 | Erosion of natural deposits. |

*See "maximum level detected" below. Range of all individual sites in parentheses.

**Chlorite is the average of 3 distribution samples taken monthly. Range of all samples in parentheses.

MRDL (maximum residual disinfection level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants.

MRDLG (maximum residual disinfectant level goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

N/A (not applicable).

ND (not detected): Laboratory analysis indicates that the constituent is not present.

NTU (nephelometric turbidity unit): A measure of the clarity of water. Turbidity of approximately 5 NTU is barely noticeable by the average person.

pCi/l (picocuries per liter): A measure of radioactivity in water.

Range: The range of lowest to highest measurements detected for contaminants measured during the year.

THM (trihalomethanes): These are a group of chemicals that are formed when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. The regulated

trihalomethanes are bromodichloromethane, bromoform, chloroform, and dibromochloromethane. These compounds result from the disinfection of water with chlorine. The maximum level detected of THMs is the highest of the four quarterly running annual averages calculated during the year and is the basis of the MCL for these compounds.

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

ug/l (micrograms per liter): Corresponds to one part in one billion parts of liquid (parts per billion, ppb).

Table 4: Detected Contaminants: City of Ithaca Water System

| Contaminant | Units | Violation Y/N | Date of Sample | Maximum Level Detected (Range) | Regulatory Limit | MCLG | Likely Source of Contamination |
|-------------------------------------|-------|---------------|----------------|--------------------------------|------------------------------|------|---|
| Microbiological contaminants | | | | | | | |
| Turbidity | NTU | No | 8/8/13 | 0.12 | TT=<1 NTU | N/A | Soil runoff. |
| Turbidity samples | % | No | daily | 99.9% | TT=95% of samples <0.3NTU | N/A | Soil runoff. |
| Disinfection By-Products | | | | | | | |
| Total THMs | ug/l | No | 2013 | 47 (21-47) | MCL = 80 | N/A | By-product of drinking water chlorination. |
| Total HAA5 | ug/l | No | 2013 | 47 (20-47) | MCL = 60 | N/A | By-product of drinking water chlorination. |
| Chlorine Residual | mg/l | No | 2013 | 2.4 (0.00-2.4) | MRDL=4 | N/A | Due to drinking water chlorination. |
| Inorganics | | | | | | | |
| Aluminum (distribution system) | mg/l | No | 2013 | .23 (0-0.23) | N/A | N/A | A secondary contaminant related to aesthetics and technical effects; from water treatment chemicals and aluminum factories |
| Barium | mg/l | No | 2/5/13 | 0.027 | MCL=2 | 2 | Drilling wastes; discharge from metal refineries; erosion of natural deposits. |
| Chloride | mg/l | No | 2/5/13 | 49 | MCL=250 | N/A | Naturally occurring or road salt |
| Copper (distribution system) | mg/l | No | 2013 | .79 (0-.79) | AL=1.3 | 1.3 | Household plumbing corrosion; erosion of natural deposits; wood preservatives. |
| Chromium | mu/l | No | 2/5/13 | 1.2 | MCL=100 | 100 | Discharge from steel & pulp mills; Erosion of natural deposits. |
| Lead | ug/l | No | 2012 | 15 (0-15) | AL=15 | 0 | Household plumbing corrosion; erosion of natural deposits. |
| Nitrate (as N) | mg/l | No | 2/5/13 | 0.36 | MCL=10 | 10 | Fertilizer runoff; septic tank leaching; erosion of natural deposits |
| Sodium | mg/l | No | 2013 | 25 (17-25) | See Water Quality, Section C | N/A | Naturally occurring; road salt; animal waste; water softeners; water treatment chemicals. |
| Sulfate | mg/l | No | 2/5/13 | 11 | MCL=250 | N/A | Naturally occurring |
| Radioactive | | | | | | | |
| Radium-228 | pCi/l | No | 10/2/12 | 2.98 | MCL=5 | 0 | Erosion of natural deposits. |
| Unregulated Contaminants | | | | | | | |
| Chlorate | ug/L | No | 2013 | 277 ave | Unregulated | N/A | Chlorate ion is a known byproduct of the drinking water disinfection process, forming when sodium hypochlorite or chlorine dioxide are used in the disinfection process. |
| Hexavalent Chromium | ug/L | No | 2013 | 0.017 ave | Unregulated | N/A | Hexavalent chromium can enter waterways through the erosion of natural deposits or from industrial discharges. |
| Chromium, Total | ug/L | No | 2013 | 0.099 ave | Unregulated | N/A | Chromium is a metallic element found in rocks, soils, plants, and animals. It is used in steel making, metal plating, leather tanning, corrosion inhibitors, paints, dyes, and wood preservatives. |
| Strontium, Total | ug/L | No | 2013 | 74.4 | Unregulated | N/A | Strontium occurs nearly everywhere in small amounts. Air, dust, soil, foods and drinking water all contain traces of strontium. Ingestion of small amounts of strontium is not harmful. However, high levels of strontium can occur in water drawn from bedrock aquifers that are rich in strontium minerals. |

Table 5: Detected Contaminants: Cornell University Water System

| Contaminant | Units | Violation Y/N | Date of Sample | Maximum Level Detected (Range) | Regulatory Limit | MCLG | Likely Source of Contamination |
|-------------------------------------|-------|---------------|----------------|--------------------------------|------------------------------|------|---|
| Microbiological contaminants | | | | | | | |
| Turbidity | NTU | No | 2013 | 0.013-0.106 | TT=<1 NTU | N/A | Soil runoff. |
| Turbidity samples | % | No | daily | 100% | TT=95% of samples <0.3NTU | N/A | Soil runoff. |
| Disinfection By-Products | | | | | | | |
| Total THMs | ug/l | No | 8/13 | 66 (47-66) | MCL = 80 | N/A | By-product of drinking water chlorination. |
| Total HAA5 | ug/l | No | 8/13 | 47 (33-47) | MCL = 60 | N/A | By-product of drinking water chlorination. |
| Chlorine Residual | mg/l | No | 2013 | 1.34 (0.90-2.00) | MRDL=4 | N/A | By-product of drinking water chlorination |
| Inorganics | | | | | | | |
| Barium | mg/l | No | 11/05/13 | 0.022 | MCL=2 | 2 | Drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Chromium | mg/l | No | 11/05/13 | <0.0010 | MCL=0.01 | 0.01 | Discharge from steel and pulp mills; erosion of natural deposits. |
| Copper | mg/l | No | 2012 | 0.17 (0.01-0.94) | AL=1.3 | 1.3 | Household plumbing corrosion; erosion of natural deposits; wood preservatives. |
| Lead | ug/l | No* | 2012 | 5.2 (ND-160*) | AL=15 | 0 | Household plumbing corrosion; erosion of natural deposits. |
| Nickel | mg/l | No | 11/05/13 | <0.0010 | N/A | N/A | Discharge from steel and pulp mills, erosion of natural deposits. |
| Nitrate | mg/l | No | 11/05/13 | 0.81 | MCL=10 | 10 | Fertilizer runoff; septic tank leaching; sewage; erosion of natural deposits. |
| Sodium | mg/l | No | 11/05/13 | 18 | See Water Quality, Section C | N/A | Naturally occurring; road salt; animal waste; water softeners; water treatment chemicals. |
| Radioactive | | | | | | | |
| Gross Alpha | pCi/l | No | 3/19/08 | 0.21 | MCL=5 | 0 | Erosion of natural deposits. |
| Unregulated Contaminants | | | | | | | |
| Chlorate | ug/L | No | 2013 | 478 (70-478) | Unregulated | N/A | Chlorate ion is a known byproduct of the drinking water disinfection process, forming when sodium hypochlorite or chlorine dioxide are used in the disinfection process. |
| Hexavalent Chromium | ug/L | No | 2013 | 0.04 (ND-0.04) | Unregulated | N/A | Hexavalent chromium can enter waterways through the erosion of natural deposits or from industrial discharges. |
| Chromium, Total | ug/L | No | 2013 | 0.27 (ND-0.27) | Unregulated | N/A | Chromium is a metallic element found in rocks, soils, plants, and animals. It is used in steel making, metal plating, leather tanning, corrosion inhibitors, paints, dyes, and wood preservatives. |
| Strontium, Total | ug/L | No | 2013 | 109 (54.3-109) | Unregulated | N/A | Strontium occurs nearly everywhere in small amounts. Air, dust, soil, foods and drinking water all contain traces of strontium. Ingestion of small amounts of strontium is not harmful. However, high levels of strontium can occur in water drawn from bedrock aquifers that are rich in strontium minerals. |

*Sampling error determined in highest lead result; repeat testing was Non-Detect.

F. NON-DETECTED CONTAMINANTS

Table 6: Non-Detected Contaminants: All Systems

| CONTAMINANT | BP-MWS 2013 | CIWS 2013 | CUWS 2013 | CONTAMINANT | BP-MWS 2013 | CIWS 2013 | CUWS 2013 |
|--|----------------|--------------|--------------|-----------------------------|----------------|--------------|--------------|
| Microbiological | | | | Principal Organics | | | |
| Total Coliform | X | X | X | Benzene | X | X | X |
| E. Coli | X | X | X | Bromobenzene | X | X | X |
| Inorganics | | | | Bromochloromethane | X | X | X |
| Antimony | X | X | X | Bromomethane | X | X | X |
| Arsenic | X | X | X | N-Butylbenzene | X | X | X |
| Asbestos | NR | NR | X | sec-Butylbenzene | X | X | X |
| Beryllium | X | X | X | tert-Butylbenzene | X | X | X |
| Cadmium | X | X | X | Carbon tetrachloride | X | X | X |
| Color | NR | X | NR | Chlorobenzene | X | X | X |
| Cyanide | X | X | X | Chloroethane | X | X | X |
| Fluoride | X | X | X | Chloromethane | X | X | X |
| Mercury | X | X | X | 2-Chlorotoluene | X | X | X |
| Nitrite | X | X | X | 4-Chlorotoluene | X | X | X |
| Selenium | X | X | X | 1,2-Dibromo-3-chloropropane | X | NR | X |
| Silver | NR | X | NR | 1,2-Dibromoethane | X | NR | NR |
| Thallium | X | X | X | Dibromomethane | X | X | X |
| Synthetic Organics & Pesticides; Groups 1 & 2 | | | | 1,2-Dichlorobenzene | X | X | X |
| Aalachlor | X | X | X | 1,3-Dichlorobenzene | X | X | X |
| Aldicarb | X | X | X | 1,4-Dichlorobenzene | X | X | X |
| Aldicarb sulfoxide | X | X | X | Dichlorodifluoromethane | X | X | X |
| Aldicarb sulfone | X | X | X | 1,1-Dichloroethane | X | X | X |
| Atrazine | X | X | X | 1,2-Dichloroethane | X | X | X |
| Carbofuran | X | X | X | 1,1-Dichloroethene | X | X | X |
| Chlordane | X | X | X | cis-1,2-Dichloroethene | X | X | X |
| Dibromochloropropane | X | X | X | trans-1,2-Dichloroethene | X | X | X |
| 2,4-D | X | X | X | 1,2-Dichloropropane | X | X | X |
| Endrin | X | X | X | 1,3-Dichloropropane | X | X | X |
| Ethylene dibromide | NR | X | X | 2,2-Dichloropropane | X | X | X |
| Heptachlor | X | X | X | 1,1-Dichloropropene | X | X | X |
| Heptachlor epoxide | X | X | X | cis-1,3-Dichloropropene | X | X | X |
| Lindane | X | X | X | trans-1,3-Dichloropropene | X | X | X |
| Methoxychlor | X | X | X | Ethylbenzene | X | X | X |
| PCB - aroclor 1016 | X | X | X | Hexachlorobutadiene | X | X | X |
| PCB - aroclor 1221 | X | X | X | Isopropylbenzene | X | X | X |
| PCB - aroclor 1232 | X | X | X | p-Isopropyltoluene | X | X | X |
| PCB - aroclor 1242 | X | X | X | Methylene chloride | X | X | X |
| PCB - aroclor 1248 | X | X | X | n-Propylbenzene | X | X | X |
| PCB - aroclor 1254 | X | X | X | Styrene | X | X | X |
| PCB - aroclor 1260 | X | X | X | 1,1,1,2-Tetrachloroethane | X | X | X |
| Pentachlorophenol | X | X | X | 1,1,2,2-Tetrachloroethane | X | X | X |
| Toxaphene | X | X | X | Tetrachloroethene | X | X | X |
| 2,4,5-TP (Silvex) | X | X | X | Toluene | X | X | X |
| Aldrin | X | X | X | 1,2,3-Trichlorobenzene | X | X | X |
| Benzo(a)pyrene | X | X | X | 1,2,4-Trichlorobenzene | X | X | X |
| Butachlor | X | X | X | 1,1,1-Trichloroethane | X | X | X |
| Carbaryl | X | X | X | 1,1,2-Trichloroethane | X | X | X |
| Dalapon | X | X | X | Trichloroethene | X | X | X |
| Bis (2-ethylhexyl) adipate | X | X | X | Trichlorofluoromethane | X | X | X |
| Bis (2-ethylhexyl) phthalate | X * | X | X | 1,2,3-Trichloropropane | X | X | X |
| Dicamba | X | X | X | 1,2,4-Trimethylbenzene | X | X | X |
| Dieldrin | X | X | X | 1,3,5-Trimethylbenzene | X | X | X |
| Dinoseb | X | X | X | m-Xylene | X | X | X |
| Glyphosphate | NR | X | NR | o-Xylene | X | X | X |
| Hexachlorobenzene | X | X | X | | | | |
| Hexachlorocyclopentadiene | X | X | X | | | | |
| 3-Hydroxycarbofuran | X | X | X | | | | |
| Methomyl | X | X | X | | | | |
| Metolachlor | X | X | X | | | | |

| CONTAMINANT | BP-MWS 2013 | CIWS 2013 | CUWS 2013 |
|--------------------------|----------------|--------------|--------------|
| p-Xylene | X | X | X |
| Vinyl chloride | X | X | X |
| MTBE | X | X | X |
| UCMR 1 | 2003 | 2003 | 2003 |
| 2,4-Dinitrotoluene | X | X | X |
| 2,6-Dinitrotoluene | X | X | X |
| Acetochlor | X | X | X |
| DCPA mono-acid degradate | X | X | X |
| DCPA di-acid degradate | X | X | X |
| 4,4'-DDE | X | X | X |
| EPTC | X | X | X |
| Molinate | X | X | X |
| Nitrobenzene | X | X | X |
| Perchlorate | X | X | X |
| Terbacil | X | X | X |
| UCMR 2 | 2009/10 | 2008 | 2008 |
| 1,2-Diphenylbrazine | X | X | X |
| Diazinon | X | X | X |
| Disulfoton | X | X | X |
| Fonofos | X | X | X |
| Nitrobenzine | X | X | X |
| Prometon | X | X | X |
| Terbufos | X | X | X |
| 2-Methylphenol | X | X | X |
| 2,4-Dichlorophenol | X | X | X |
| 2,4-Dinitrophenol | X | X | X |
| 2,4,6-Trichlorophenol | X | X | X |
| Diuron | X | X | X |
| Linuron | X | X | X |
| UCMR 3 | 2014 | 2013 | 2013 |
| 1,2,3-trichloropropane | ** | X | X |
| Methyl bromide | ** | X | X |
| Methyl chloride | ** | X | X |
| HALON 1011 | ** | X | X |
| HCFC-22 | ** | X | X |
| 1,3-butadiene | ** | X | X |
| 1,1-dichloroethane | ** | X | X |
| 1,4-dioxane | ** | X | X |
| Vanadium | ** | X | X |
| Molybdenum | ** | X | X |
| Cobalt | ** | X | X |
| Strontium | ** | D | D |
| Chromium1 | ** | D | D |
| Chromium6 | ** | D | D |
| Chlorate | ** | D | D |
| PFOS | ** | X | X |
| PFOA | ** | X | X |
| PFBS | ** | X | X |
| PFHxS | ** | X | X |
| PFHpA | ** | X | X |
| PFNA | ** | X | X |
| Other PFQA | | | |
| Gross alpha | D | X | D |
| Gross beta | NR | X | X |
| Radium | D | D | X |

X = Monitored, but not detected

D = Refer to detected list

NR = Not required and not monitored in the past five years

UMCR = Unregulated Contaminant Monitoring Requirements

*Detected at 0.00072 mg/l with a qualifier of 0.00075 mg/l detected in the blank.

** BPWS will conduct UCMR3 testing in 2014.

G. MAJOR MODIFICATIONS COMPLETED IN 2013

Bolton Point (BP-MWS):

Tank Replacements

- Burdick Hill tank (1.5 MG – Bolton Point)
- Danby Road tank (0.5 MG – Town of Ithaca)

Water Main Replacements

- Pleasant Grove Road transmission main (Bolton Point)
- Danby Road and West King Road water main (Town of Ithaca)
- Forest Drive water main (Village of Cayuga Heights)
- Hanshaw Road water main (Town of Ithaca) replacement/relocation
- Village Office water main (Village of Lansing) replacement/relocation

Water Main Extensions

- Longview Patio Home water main
- Cayuga Way water main

City (CIWS):

Water Project:

- Intake road and building work started
- Giles Street waste handling facility work started
- Interconnection building work started
- Elm Street tank and pump station work started

Distribution System

- Mitchell Street pump #5 was replaced
- 800 lineal feet (LF) of main cleaned on Ridgewood Road
- 750 LF of main cleaned on Thurston to Highland
- 360 LF of 6 inch main replaced on Edgecliff Place
- 345 LF of 8 inch main replaced on Esty Street
- 400 LF of 6 inch main replaced on Rosemary Lane
- 900 LF of 16 inch main replaced on the Commons
- 300 LF of 6 inch main replaced with 8 inch on the Commons

Cornell (CUWS):

- 700 LF of 6 inch cast iron water main replaced on Pleasant Grove Road
- Installed water meters on State buildings to assist with accounting for unbilled water
- Plant solid residual management program modifications
- Updated Cross Connection Control Plan
- Replaced and improved water service to Ives Hall complex
- Engineering completed for Water Filtration Plant electrical service upgrade
- Engineering completed for Water Filtration Plant finished water pump replacement
- Monopole for cellular providers constructed to enable the demolition of our elevated water tank, which is out of service but still houses cellular equipment

H. FUTURE PROJECTS AND CAPITAL IMPROVEMENTS (Planned for 2014)

Bolton Point (BP-MWS)

Tank Replacements

- Christopher Circle tank (0.5 MG – Town of Ithaca)

Water Main Replacements

- Route 13 transmission main reinforcement main (Bolton Point)
- Coddington Road water main (Town of Ithaca)
- Route 13/North Triphammer Road water main (Village of Lansing)

City (CIWS):

Water Project:

- Startup of the Giles Street facility, Interconnect Building and Elm Street pump Station
- Commissioning of the Intake building and completion of the new road
- Complete design of the water treatment plant
- Complete items for contract 1 related to the dam improvements and new intake

Dist. System

- Stationary generator for Vinegar Hill pump Station
- Replace Mitchell Street pump #6
- Incorporate East Ithaca pump and motor replacements into water project
- 1000 LF of main to be cleaned in the Woodcrest/Homestead area
- Complete water main loops; 700 LF Kline Road, 250 LF on Worth & Vine Streets

Cornell (CUWS)

- Demolition of the elevated water tank near Caldwell Road and Rt. 366
- Complete construction of new finished water pumps in the Water Filtration Plant
- Begin systematic replacement of aging cast iron water main in North Campus
- Complete construction of new electrical service to the Water Filtration Plant
- Automate fire hydrant maintenance program
- Complete Residual Management Program modifications
- Rebuild Raw Water Intake pump
- Pave Water Filtration Plant driveway
- Assist with Forest Home Bridge renovation project by providing necessary utilities and work space

WATER CONSERVATION MEASURES

You can play a role in conserving water by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. The following are some ideas that you can apply directly in your own home.

Use your water meter to detect hidden leaks. Turn off all taps and water using appliances, then record the meter reading and check the meter after 15 minutes. If it registers, you have a leak.

Restaurants in the U.S. serve approximately 70 million meals a day. Every glass of water brought to your table requires another two glasses of water to wash and rinse the glass.

The bathroom accounts for 75 percent of the water used inside the home.

Water your lawn only when it needs it. If you step on the grass and it springs back up when you move, it doesn't need water. If it stays flat, it does.

Put 10 drops of food coloring in your toilet tank. If the color shows up in the bowl without flushing, you have a leak to repair. It is common to lose up to 100 gallons a day from a toilet leak. Fix it, and you save more than 30,000 gallons a year.

Do not hose down your driveway or sidewalk. Use a broom to clean leaves and other debris from these areas. Using a hose to clean a driveway can waste hundreds of gallons of water.

If every American home installed low-flow faucet aerators, the United States would save 250 million gallons of water a day.

Fix leaks as soon as they are found. A dripping faucet with a 1/16 inch stream wastes 100 gallons of water per day.

Saving water can lower your power bills by reducing your demand for hot or pumped water. These few simple steps will preserve the resource for future generations and also save up to 30% on your bill.

SECURITY CONCERNS

Generally, security threats to the three water systems have consisted of primarily minor vandalism and property damage. However, our security efforts focus to a high degree on the much less likely, but more serious, threat of intentional contamination of the water supply. All three water systems have performed security assessments of their entire systems and updated their Emergency Response Plans to cover the possibility of terrorism. Weaknesses in procedures have been corrected and improvements to increase the security of the infrastructure have been undertaken. Local police are aware of the security needs of the water systems and have maintained increased patrolling of the facilities. Your awareness and reporting of suspicious activity throughout the systems is appreciated.

SOURCE WATER PROTECTION

The New York State Health Department is in the process of developing a Source Water Assessment Report for every surface drinking water source in the state. When the reports for our three sources are completed, the systems will review them and provide a summary. If these reports become available in 2014, a summary will be posted on our websites and provided in next year's Annual Drinking Water Quality Report.

HIGH QUALITY DRINKING WATER FOR TOMPKINS COUNTY RESIDENTS

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CURRENT RESIDENT

Water Trivia

- There are over 58,900 community water systems in the United States processing more than 34 billion gallons per day.
- The average residence in the United States uses 107,000 gallons of water a year.
- It takes 62,600 gallons of water to produce one ton of steel.
- Eighty percent of the earth's surface is covered by water, but only one percent of the earth's water is suitable for drinking.
- It takes 101 gallons of water to make one pound of wool or cotton.
- Water acts as a natural buffer against extreme or rapid changes in the earth's temperature.
- It would take 219 million gallons of water to cover one square mile with one foot of water.
- One gallon of water weighs 8.34 pounds.

Resources

Web sites with more water information and activities for children:

- www.epa.gov/safewater/index.html
- www.epa.gov/safewater/kids/index.html