INTRODUCTION
To comply with State regulations, the Town of Greenburgh Consolidated Water District No. 1 will issue an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are 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 concerning your drinking water, please contact Charles Martins, Chief Water Treatment Plant Operator at (914) 993-1392. The Westchester County Health Department, Bureau of Environmental Quality has regulatory jurisdiction over the District and their phone number is (914) 813-5000. We want you to be informed about your drinking water. If you want to learn more all official business of the District is conducted as part of the Official business of the Town during regularly scheduled public Town Board meetings. These meetings are normally held the second and fourth Wednesday of each month at Town Hall at 7:30 PM. Only one meeting is scheduled for July and August.

WHERE DOES OUR WATER COME FROM?
In general, the sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems.
The State Department of Environmental Protection and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for the public health.

The District purchases all of its water from the City of New York, Department of Environmental Protection - Bureau of Water Supply via the Catskill and Delaware aqueducts. This "surface" water originates in protected watershed areas 120 miles northwest of Greenburgh in the Catskill Mountains after it travels through a New York City owned system. During 2013, our system did not experience any restriction of our water source. The water we received from New York City's system had already undergone some of the required treatment prior to reaching us. This source water continues to be of such high quality that it meets the requirements for a "Filtration Avoidance" waiver from the U.S. Environmental Protection Agency (EPA). EPA now requires that most surface drinking water be filtered. This is due to the New York City's $1.5 billion investment in watershed protection programs; the federal government allows New York City to continue receiving unfiltered drinking water from the Catskill and Delaware watersheds. The holistic approach exempts New York City from being required to build a filtration plant that could cost $10 billion or more and therefore help reduce the cost increases we are already experiencing. However, under the requirements of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), Catskill/Delaware water is required to have two types of disinfection. The water is already disinfected with chlorine, and the Catskill/Delaware Ultraviolet (UV) Disinfection Facility will provide the federally-required secondary level of disinfection against potentially harmful microbiological contaminants such as Cryptosporidium and Giardia.

The plant, which was put into operation in 2012, is located at the New York City-owned Eastview site the towns of Mount Pleasant and Greenburgh. Additionally, New York City adds a small amount of fluoride to help prevent tooth decay. All treatment complies with the New York State Health Department and the U.S. EPA. The District performed additional treatment consisting of additional disinfection utilizing chlorine and corrosion control utilizing blended liquid zinc orthophosphate and sodium hydroxide.

SOURCE WATER ASSESSMENT FINDINGS
The New York State Department of Health (NYSDOH) has evaluated the susceptibility of water supplies statewide to potential contamination under the Source Water Assessment Program (SWAP). Summarized in the paragraphs below are their findings related to our source of supply the Catskill/Delaware watersheds. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Furthermore, elevated susceptibility ratings do not mean that source water contamination has or will occur for this Public Water System (PWS). Please be advised this PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

Specifically the reservoirs in the Catskill/Delaware watersheds, a mountainous rural area, are relatively deep with little development along their shorelines. The main water quality concerns associated with land cover is agriculture, which can contribute microbial contaminants, pesticides and algae producing nutrients. There are also some potential contamination concerns associated with residential lands and associated wastewater discharges. However, advanced treatments which reduce contaminants are in place for most of these discharges. There are also a number of other discrete facilities such as landfills, chemical bulk storage, etc. that have the potential to impact local water quality, but significant long water quality problems associated with these facilities are unlikely due to the size of the watershed and surveillance and management practices.

Furthermore, the NYC DEP has implemented a series of programs to evaluate and protect source water quality within these watersheds. Their efforts focus on three important program areas: the enforcement of strengthened watershed rules and regulations; the actions and protection of watershed lands; and implementation partnership programs that target specific sources of pollution in the watersheds. Additional information on the water quality and protection efforts in these New York City watersheds can be found at DEP's website at www.nyc.gov/html/dep/html/watershed_protection/home.html.

FACTS AND FIGURES
Our water system serves approximately 40,500 people through 11,500 service connections. The total water produced in 2013 was 2,671 billion gallons. Of the total amount produced 360.5 million gallons was sold to other water districts. The daily average of water treated and pumped into the distribution system was 7.32 million gallons per day. Our highest single day was 13.2 million gallons. The amount of water delivered to customers was 2,292 billion gallons. This leaves an unaccounted total of 379.6 million gallons (14.2% of the total amount produced). Some of this water was used to flush mains and fight fires; the remaining unaccounted for balance was due to water main and service line breaks. In 2013, water customers were charged quarterly, $4.83 per 1,000 gallons for the first 10,000 gallons; $6.05 per 1,000 gallons for 11,000 up to 50,000, and $7.20 per 1,000 gallons for 51,000 gallons and up. Customers billed on a monthly basis have the same rates with limits 1/3 of the quarterly limits. Out of District customers are charged $9.66 per 1,000 gallons. The average residential household uses approximately 102,000 gallons per year and the approximate annual average water charge per user was $605.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?
As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, is more than one year old. It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to at
The contaminants listed below were required to be tested for in our drinking water. The results showed that none of these contaminants were detected in our water. These Non-Detected contaminants are: Asbestos, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury (Inorganic), Nickel, Silver, Cyanide, Sulfate, Selenium, Thallium, Tetrachloroethane; Methomyl; Dibromomethane; 1,2-Dichloropropene; Aldrin, Naphthalene, 2,3,7,8-Tetrachlorodibenzo-p-dioxin, 1,3,5-Triazine; Dieldrin; Chloroform; Methyl chloride; Chlororomethane; n-Alkyl-

1 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 severely restricted sodium diets. Water containing more than 20 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

2 The level presented represents the 90th percentile of the 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the values detected at a customer’s taps in the distribution system.

3 The level presented represents the 90th percentile of the 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th is equal to or greater than 90% of the values detected at a customer’s taps in the distribution system.

**DEFINITIONS**

**MCCLG** - Maximum Contaminant Level Goal

- Level of a contaminant in drinking water, which is not likely to exert or be expected to result in adverse human health effects.

**MCL** - Maximum Contaminant Level

- The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as is practicable.

**Turbidity**

- A measure of cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

**pH** - Precipitation per litre

- A measure of the acidity or alkalinity of water.

**Fluoride** - Fluoride per litre

- Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Activity Level**

- The level presented represents the 90th percentile of the values detected at a customer’s taps in the distribution system.

**MDRL** - Maximum Residual Disinfectant Level

- 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. MDRLs are currently regulated in the same manner as MCLs.

**TABLE OF DETECTED CONTAMINANT MICROBIOLOGICAL CONTAMINANTS**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation Y/N</th>
<th>Date of Sample</th>
<th>Level Detected (Avg./Max) (Range)</th>
<th>Unit Measurement</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coliform</td>
<td>Yes/No</td>
<td>2013</td>
<td>0.71 - 2.40</td>
<td>NTU</td>
<td>n/a</td>
<td>5</td>
<td>Soil run-off</td>
</tr>
<tr>
<td>Chlorine</td>
<td>Yes/No</td>
<td>2013</td>
<td>5.0% - June</td>
<td>% samples</td>
<td>in 1 month</td>
<td>mg/l</td>
<td>n/a</td>
</tr>
<tr>
<td>Chlorine Residual</td>
<td>No</td>
<td>2013</td>
<td>1.35 - 1.78 mg/l</td>
<td></td>
<td></td>
<td></td>
<td>Water additive used to control microbes</td>
</tr>
</tbody>
</table>

**REGULATED INORGANIC AND PHYSICAL CONTAMINANT**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation Y/N</th>
<th>Date of Sample</th>
<th>Level Detected (Avg./Max) (Range)</th>
<th>Unit Measurement</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium</td>
<td>No</td>
<td>7/1/13</td>
<td>0.02 mg/l</td>
<td>mg/l</td>
<td>2</td>
<td>2</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td>Chlordane</td>
<td>No</td>
<td>7/1/13</td>
<td>6.75 mg/l</td>
<td>mg/l</td>
<td>n/a</td>
<td>250</td>
<td>Naturally occurring or indicative of road salt contamination</td>
</tr>
<tr>
<td>Chloride</td>
<td>No</td>
<td>2/14/13</td>
<td>0.85 mg/l</td>
<td>mg/l</td>
<td>n/a</td>
<td>2.2</td>
<td>Erosion of natural deposits, water additive that promotes strong tooth enamel formation</td>
</tr>
<tr>
<td>Manganese</td>
<td>No</td>
<td>7/1/13</td>
<td>16.4 ug/l</td>
<td>ug/l</td>
<td>n/a</td>
<td>100</td>
<td>Naturally occurring</td>
</tr>
<tr>
<td>Sodium</td>
<td>No</td>
<td>7/1/13</td>
<td>8.0 mg/l</td>
<td>mg/l</td>
<td>n/a</td>
<td>See note</td>
<td>Naturally occurring; Animal waste</td>
</tr>
<tr>
<td>Zinc</td>
<td>No</td>
<td>7/1/13</td>
<td>735 ug/l</td>
<td>ug/l</td>
<td>n/a</td>
<td>5000</td>
<td>Naturally occurring; water additive for corrosion treatment</td>
</tr>
<tr>
<td>Nitrate</td>
<td>No</td>
<td>7/1/13</td>
<td>0.20 mg/l</td>
<td>mg/l</td>
<td>10</td>
<td>10</td>
<td>Runoff from fertilizer</td>
</tr>
<tr>
<td>Chlorine (total)</td>
<td>No</td>
<td>7/1/13</td>
<td>3 units</td>
<td>units</td>
<td>n/a</td>
<td>15</td>
<td>Large quantities of organic chemicals, decay leaves, plants and soil organic matter</td>
</tr>
</tbody>
</table>

**UNREGULATED CONTAMINANT MONITORING RULE**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation Y/N</th>
<th>Date of Sample</th>
<th>Level Detected (Avg./Max) (Range)</th>
<th>Unit Measurement</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexavalent Chromium</td>
<td>No</td>
<td>2013</td>
<td>0.017 - 0.047</td>
<td>ng/l</td>
<td>5</td>
<td>n/a</td>
<td>Erosion of natural deposits</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>2015</td>
<td>18 - 22</td>
<td>ng/l</td>
<td>n/a</td>
<td>n/a</td>
<td>Erosion of natural deposits</td>
</tr>
</tbody>
</table>

**CORROSION RULE**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation Y/N</th>
<th>Date of Sample</th>
<th>Level Detected (Avg./Max) (Range)</th>
<th>Unit Measurement</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>No</td>
<td>6/1-9/30/11</td>
<td>1.4 (0.10-2.35)</td>
<td>ug/l</td>
<td>0</td>
<td>AL=15</td>
<td>Corrosion of household plumbing systems</td>
</tr>
<tr>
<td>Copper</td>
<td>No</td>
<td>6/1-9/30/11</td>
<td>1.25 (0.43-3.68)</td>
<td>ug/l</td>
<td>0</td>
<td>AL=1300</td>
<td>Corrosion of household plumbing systems</td>
</tr>
</tbody>
</table>

**DISINFECTION BYPRODUCTS**

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Violation Y/N</th>
<th>Date of Sample</th>
<th>Level Detected (Avg./Max) (Range)</th>
<th>Unit Measurement</th>
<th>MCLG</th>
<th>Regulatory Limit (MCL)</th>
<th>Likely Source of Contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Trihalomethanes (THMs – chloroform, bromodichloromethane, dibromochloromethane and bromoform)</td>
<td>No</td>
<td>4 sites quarterly</td>
<td>38, 32, 31, 32</td>
<td>mg/l</td>
<td>n/a</td>
<td>80</td>
<td>By-product of drinking water chlorination used to kill harmful organisms. THMs are formed when source water contains large amounts of organic matter</td>
</tr>
<tr>
<td>Haloacetic Acids (mono- , di-, and trihaloacetic acid and mono- and di-bromoacetic acid)</td>
<td>No</td>
<td>4 sites quarterly</td>
<td>34, 40, 34, 34</td>
<td>mg/l</td>
<td>n/a</td>
<td>60</td>
<td>By-product of drinking water chlorination</td>
</tr>
</tbody>
</table>

**NON-DETECTED CONTAMINANTS:**

- The contaminants listed below were required to be tested for in our drinking water. The results showed that none of these contaminants were detected in our water. These Non-Detected contaminants are: Asbestos, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury (Inorganic), Nickel, Silver, Cyanide, Sulfate, Selenium, Thallium, Tetrachloroethane; Methomyl; Dibromomethane; 1,2-Dichloropropene; Aldrin, N-Butylbenzene; trans-1,3-Dichloropropene; Carbyl; sec-Butylbenzene; Ethylbenzene; Dalapon; tert-Butylbenzene; Hexachlorobuta diene, Di(2-ethylhexyl)adipate; Carbon Tetrachloride; ; Isopropylbenzene; Dicamba; Chlorobenzene; p-Isopropyltoluene; Dieldrin; Chloroethane; Methylene; Chloride; Glyphosate; Chlororomethane; n-Propylbenzene; Hexachlorocyclopentadiene; 2-Chlorothiophene; Styrene; 3 Hydroxythiobarituran; 4-Chlorothiophene, 1, 1, 1, 2-Tetra chlorothiophen; Methomyl; Dibromomethane; 1, 1, 2, 2- Tetrachloroethane; Oxamyl and 1, 2-Dichlorobenzene; Tetrachloroethene; Picolam; 1, 3- Dichlorobenzene; Toluen; Propachlor; 1,4-
During 2013, The Greenburgh Consolidated Water District # 1 system was in compliance with applicable State drinking water monitoring and reporting requirements.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is inactivated by disinfection. During 2013 as part of their routine sampling The City of New York, Department of Environmental Protection - Bureau of Water Supply collected a total of 52 routine samples from the Kensico Reservoir effluent and analyzed them for Cryptosporidium oocysts. Of these samples, none were positive for Cryptosporidium. Ingestion of Cryptosporidium oocysts may cause Cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Unregulated Contaminant Monitoring Rule (UCMR)

Under the 1996 amendments to the federal Safe Drinking Water Act, and the Third Unregulated Contaminant Monitoring Rule (UCMR3), EPA is required once every five years to issue a new list of up to 30 unregulated contaminants for which public water systems must monitor. The intent of this rule is to provide baseline occurrence data that the EPA can combine with toxicological research to make decisions about potential future drinking water regulations. The data from this sampling can be found in the tables of this report. For more information on the rule, and to see a list of the 30 unregulated contaminants, go to http://water.epa.gov/lawsregs/ulesregs/sdwa/ucmr/ucmr3/index.cfm.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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

INFORMATION ON FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. Fluoride is added to your water by the New York City DEP – Bureau of Water Supply before it is delivered to us. According to the United States Centers for Disease Control and Prevention, fluoride is very effective in preventing cavities when present in drinking water at an optimal range of 0.7 to 1.2 mg/L. On February 14, 2012, after receiving authorization from the New York City Department of Health and Mental Hygiene, DEP reduced the target dosage of fluoride from 1.0 mg/L to 0.8 mg/L. During 2013, DEP did not continuously supply fluoride due to the modifications to the fluoride delivery system and other construction activities, fluoridation was off-line 24% of the time. The longest continuous period DEP completely shut down the fluoride delivery system was 16 days from January, 1 2013 to January 16, 2013 due to system modifications at Delaware Shaft 18.

IF YOUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

For more information on the rule, and to see a list of the 30 unregulated contaminants, go to http://water.epa.gov/lawsregs/ulesregs/sdwa/ucmr/ucmr3/index.cfm.
SYSTEM IMPROVEMENTS

A Capital improvement project is underway for the Installation of the Town's Metering AMR system. The Town's investments in these wireless water meter readers known as AMR, will allow customers to view their water consumption in real time and helps in detecting leaks before they become a serious billing problem. Since water customers are charged based on consumption, varied usage and leaks can drastically affect quarterly bills. This project should be completed in 2015. Future capital needs and funding are proposed in the 2014 capital budget including funding for the start of a rehabilitation program for the repair, renovation and painting of our water storage tanks and the design for the Rumbrook Pump Station Upgrade interconnection. Operationally funded improvements which occurred during 2013 was the study for the Rumbrook upgrade and interconnection as well as the continued upgrade to our existing Knollwood and Rumbrook Pump Station SCADA systems. Two of the Water Storage Tanks(Knollwood and Fairview) have had some minor repairs performed to their ladders and roofs as outlined in their inspection reports. Also, A Water Main Replacement Project was completed replacing approximately 1800 linear ft. of water main on Greenvale Circle and Southwood Road as part of the water department's proactive acp water main replacement initiative.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Water conservation does not have to mean suffering or inconvenience. It does mean making the most efficient use of the supply available. Water conservation means changing our habits permanently - being aware of water and thinking how much we can save every time we water the lawn, turn on a faucet, push the button to start a dish or clothes-washer, or flush a toilet. There are a number of reasons why it is important to conserve water.

• Saving water saves energy and some of the costs associated with both of these necessities of life;
• Saving water reduces the cost of energy required to pump water; and
• Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a major 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. Conservation tips include:

• Use only the water needed to do the task.
• Turn off the water when you are not using it.
• Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fixing a faucet leak, often only requires replacing a washer, and you can save almost 6000 gallons a year.
• Use appliances efficiently; run full loads or adjust water level.
• Water your yard only when necessary, you could cut your outdoor use in half.
• Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
• Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If it moved, you have a leak.
• Take your water-conserving habits to school or work. Leaks or running faucets are wasting your money here, too. Notify the building superintendent when something needs to be fixed.

For more conservation tips go to http://planning.westchestergov.com/county-water-agency/water-conservation-tips

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.

For more conservation tips go to http://planning.westchestergov.com/county-water-agency/water-conservation-tips