

*Annual*  
**WaterQuality**  
**Report**  
*Water testing performed in 2010*



*Proudly Presented by:* \_\_\_\_\_  
**Supervisor Christopher Colsey**  
**Town of Wappinger**

PWS ID#: United Wappinger Water:  
NY1330660

## Quality First

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

## Where Does My Water Come From?

There are two major well fields that supply water to the United Wappinger Water District: the Atlas well field and the Hilltop well field. In 2010, approximately two-thirds of all water came from the Atlas well field, while the other one-third was pumped from the Hilltop well field. The water was pumped to two storage tanks with a volume of 1.6 million gallons. In the summer of 2010, the two well fields were able to meet the demands of high usage without any type of conserve water notice. Note that all of our water is treated with chlorine as a disinfectant to destroy microorganisms.

The water from the Atlas well field is significantly harder than the water from the Hilltop well field. It may be necessary to adjust your softener, or to install a softener. The estimated water hardness for your water is between 14 and 18 grains.

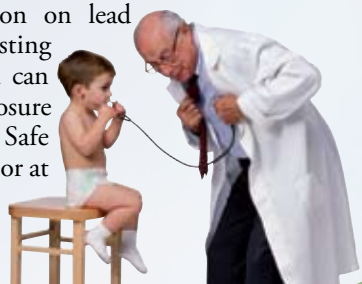
## Facts and Figures

The United Wappinger Water System serves 14,000 customers through 3,495 service connections. An average volume of approximately 1 million gallons per day was drawn from our previously mentioned sources. The average daily loss of water can be attributed to water main breaks, normal system losses, and non-metered uses (flushing, fire training, etc.). In 2010, water customers were billed a minimum of \$47.36 for up to and including 2,500 cubic feet, with an additional charge of \$1.20 per 100 cubic feet for anything over 2,500 cubic feet.

## Important Health Information

Some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care 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 at (800) 426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The time and place of regularly scheduled town board meetings may be obtained from Chris Masterson, Town Clerk, at (845) 297-5771.

## Questions?

For more information about this report, or for any questions relating to your drinking water, please call CAMO Pollution Control, Inc., at (845) 463-7310.

## Source Water Assessment

The New York State Health Department has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water; it does not mean that the water delivered to the consumers is, or will become, contaminated. See the section "Sampling Results" for a list of the contaminants that have been detected, if any. The source water assessments provide resource managers with additional information for protecting source waters into the future. The county and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the assessment can be obtained by contacting us, as noted.

### North Wappinger Water Well Field (Atlas) SWAP Summary

The source water assessment has rated our water source as having an elevated susceptibility to microbial and nitrate contamination. These ratings are due primarily to the close proximity of the wells to a permitted discharge facility (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and the residential land use and related activities in the assessment area. In addition, the wells are located in an area prone to flooding. The county and state health departments will use this information to direct future water protection activities.

### Hilltop Water Well Field SWAP Summary

The source water assessment has rated our water source as having an elevated susceptibility to microbials, nitrates, salts, sulfate, industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of the wells to a permitted discharge facility (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and the associated industrial activity, as well as the residential land use and related activities in the assessment area. In addition, the wells are located in an area that is prone to flooding. While the source water assessment has rated our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

## Substances That Might Be in Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and 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. In order to ensure that tap water is safe to drink, the State and the U.S. EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the U.S. FDA's regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791 or the Dutchess County Health Department at (845) 486-3404. You may also contact the New York State Department of Health at (800) 458-1158. The New York State Department of Health Web site ([www.health.state.ny.us](http://www.health.state.ny.us)) can also provide you with additional information regarding your drinking water.

## Home Valve Repairs

Every home should have a working main valve before the water meter. It is imperative during a leak within the house that this valve is functioning. It is the homeowner's responsibility to have a working main valve. While almost every home within the district has a buried curb valve in the front yard, due to age and susceptibility to damage, many may need repair. Everyone should check their main valve and, if it needs repair or replacement, you should call CAMO Pollution Control, Inc., at (845) 463-7310 for an appointment to have the curb valve located, checked, and possibly repaired before an emergency exists.

## Water Conservation

You can play a role in conserving water and saving yourself money in the process 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. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Turn off the tap when brushing your teeth.

Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

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 an invisible toilet leak. 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. Then check the meter after 15 minutes. If it moved, you have a leak.

**We ask that all our residents be vigilant in regard to suspicious activity in the area of our water treatment plants.**

## Non-Detected Substances

The following is a list of contaminants that were tested for but were not detected in our water supply.

Inorganics: Antimony; Beryllium; Cadmium; Chromium; Total Cyanide; Fluoride; Magnesium; Mercury; Selenium; Thallium; Asbestos; Nitrite; Color; Silver; Gross Alpha Activity, Radium 226, Radium 228.

Volatile Organics: Chloromethane; mp-Xylene; o-Xylene; Isopropylbenzene; Styrene; n-Propylbenzene; 1,2,5-Trimethylbenzene; p-Isopropyltoluene; 1,2,4-Trimethylbenzene; Bromomethane; Butylbenzene; Hexachlorobutadiene; 1,2,4-Trichlorobenzene; Naphthalene; 1,2,3-Trichlorobenzene; MTBE; Dichlorodifluoromethane; Vinyl Chloride; Chloroethane; Methylene Chloride; Trichlorofluoromethane; 1,1-Dichloroethene; Bromochloromethane; 1,1-Dichloroethane; trans-1,2-Dichloroethane; cis-1,2-Dichloroethane; 1,2-Dichloroethane; 2,2-Dichloropropane; Dibromomethane; 1,1,1-Trichloroethane; Carbon Tetrachloride; 1,2-Dichloropropane; 1,1-Dichloropropene; Trichloroethene; 1,2-Dichloropropane; 1,1,2-Trichloroethane; 1,2-Dibromoethane; 1,1,1,2-Tetrachloroethane; 1,2,3-Trichloropropane; 1,1,2,2-Tetrachloroethane; Tetrachloroethene; Chlorobenzene; Bromobenzene; 2-Chlorotoluene; 4-Chlorotoluene; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; cis-1,3-Dichloropropene; trans 1,3-Dichloropropene; 1,2-Dibromo-3-Chloropropane; Benzene; Toluene; Ethylbenzene; Sec-Butylbenzene; Tert-Butylbenzene.

SOC Group 1 Chemicals: Alachlor; Aldicarb; Aldicarb Sulfone; Aldicarb Sulfoxide; Atrazine; Carbofuran; Chlordane; Dibromochloropropene; 2,4-D; Endrin; EthyleneDibromide; Heptachlor; Epoxide; Lindane; Methoxychlor; PCB 1016; PCB 1221; PCB 1232; PCB 1242; PCB 1248; PCB 1254; PCB 1260; Pentachlorophenol; Toxaphene; 2,4,5-TP (Silvex).

SOC Group 2 Chemicals: Aldrin; Benzo(a)Pyrene; Butachlor; Carbaryl; Dalapon; Di(2-Ethylhexyl) Adipate; Di(2-Ethylhexyl) Phthalate; Dicamba; Dieldrin; Dinoseb; Hexachlorobenzene; Hexachlorocyclopentadine; 3-Hydroxycarbofurna; Methomyl; Metolachlor; Oxamyl (Vydate); Pichloram; Propachlor; Simazine; Metribuzin.

## Sampling Results

During the past year, we have taken many water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES										
			Hilltop Well Field			Atlas Well Field				
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Arsenic</b> (ppb)	10	NA	12/10	0.6	NA	12/10	ND	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
<b>Barium</b> (ppm)	2	2	12/10	0.0087	NA	12/10	0.0136	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Chloride</b> (ppm)	250	NA	12/10	61.7	NA	12/10	48.5	NA	No	Naturally occurring or indicative of road salt contamination
<b>Iron</b> (ppb)	300	NA	12/10	ND	NA	12/10	0.013	NA	No	Naturally occurring
<b>Manganese</b> (ppb)	300	NA	12/09	ND	NA	12/09	4	NA	No	Naturally occurring; Indicative of landfill contamination
<b>Nickel</b> (ppb)	100	NA	12/10	1.8	NA	12/10	2.4	NA	No	Naturally occurring
<b>Nitrate</b> (ppm)	10	10	12/10	0.38	NA	12/10	0.41	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Odor</b> (TON)	3	NA	12/10	ND	NA	12/10	2	NA	No	Organic or inorganic pollutants originating from municipal and industrial waste discharges; Natural sources
<b>Sodium</b> <sup>1</sup> (ppm)	(see footnote)	NA	12/10	35.3	NA	12/10	29.5	NA	No	Naturally occurring; Road salt; Water softeners; Animal waste
<b>Sulfate</b> (ppm)	250	NA	12/10	16.5	NA	12/10	22.8	NA	No	Naturally occurring
<b>Uranium</b> (ppb)	30	0	01/07	1.0	NA	01/07	1.1	NA	No	Erosion of natural deposits
<b>Zinc</b> (ppm)	5	NA	12/10	0.006	NA	12/10	0.237	NA	No	Naturally occurring; Mining waste
<b>Distribution System</b>										
SUBSTANCE (UNIT OF MEASURE)	MCL [MRDL]	MCLG [MRDLG]	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE			
<b>Haloacetic Acids</b> (ppb)	60	NA	08/10	11.3	NA	No	By-product of drinking water disinfection needed to kill harmful organisms			
<b>Total Trihalomethanes [TTHMs]</b> (ppb)	80	NA	08/10	24.6	NA	No	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter			
<b>Tap water samples were collected for lead and copper analyses from sample sites throughout the community</b>										
SUBSTANCE (UNIT OF MEASURE)	AL	MCLG	DATE SAMPLED	AMOUNT DETECTED (90TH% TILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE		
<b>Copper</b> (ppm)	1.3	1.3	09/10	0.109	ND–0.304	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives		
<b>Lead</b> (ppb)	15	0	09/10	4.1	ND–4.7	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits		

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<b>Lead</b> (ppb)	15	0	09/10	4.1	ND–4.7	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

**INITIAL DISTRIBUTION SYSTEM EVALUATION RESULTS (HILLTOP WELL FIELD) <sup>2</sup>**

SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Total Trihalomethanes [TTHMs]–IDSE Results</b> (ppb)	09/06	21	NA	By-product of drinking water disinfection

<sup>1</sup>Water containing more than 20 ppm of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 ppm of sodium should not be used for drinking by people on moderately restricted sodium diets.

<sup>2</sup>We were required by the U.S. EPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system that have elevated disinfection by-product concentrations. Disinfection by-products (e.g., HAAs and TTHMs) result from continuous disinfection of drinking water and form when disinfectants combine with organic matter that naturally occurs in the source water.

## Definitions

**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 it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

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

**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 possible.

**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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**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 contaminants.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TON (Threshold Odor Number):** A measure of odor in water.

