

Annual Drinking Water Quality Report for 2011
Cold Spring Water Department
85 Main Street, Cold Spring, New York 10516
Public Water Supply ID# 3903652

The Board of Water Commissioners is pleased to present this year's Water Quality Report. This report is designed, in compliance with State regulations, to inform you about the quality water and services we deliver to you every day. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water resources. Our constant goal is to provide you with a safe and dependable supply of drinking water.

The information in this report relates to the results of tests performed in the year 2011. We are proud to state that last year your tap water met all State drinking water health standards.

How to Contact Us

The Cold Spring Water Department is located at 200 Fishkill Road, and can be reached by phone at (845) 265-7986, by fax at 265-1002, or by e-mail at vcswater@bestweb.net. The billing and mailing address for the Department is 85 Main Street, Cold Spring, NY 10516. The Water Superintendent for the District is Gregory R. Phillips. Operating hours are 7 a.m. - 3:30 p.m., Monday through Friday. In the event of an emergency, contact may be made through the Cold Spring Police Dept., at 265-3407, or 265-9551.

Where Does Our Water Come From?

We operate from a three reservoir, surface water system. That means that we rely solely on annual precipitation in the form of rain and snow to maintain our supply of approximately 65 Million Gallons. The upper & middle reservoirs are located on Lake Surprise Road - approximately 3.5 miles northeast of the villages. From the middle reservoir, the supply flows via the Foundry Brook to the lower reservoir along Fishkill Road. At this point, water is pumped into the Foundry Brook Water Treatment Plant, where it undergoes coagulation, filtration, pH adjustment, disinfection, and corrosion control. It is then pumped into two storage tanks, whose capacity totals approximately 500,000 gallons. From there, the distribution system is gravity fed.

As water flows over the surface of 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 the source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

The Cold Spring Water Department supplies potable and fire supply waters to the residents of the villages of Cold Spring and Nelsonville. The Distribution System serves approximately 2,800 residents through 884 service connections

Monitoring

As the State regulations require, the Cold Spring Water Department routinely monitors for contaminants in your drinking water. Sampling sites include: residences, restaurants, public facilities, as well as the reservoir and filtration plant. The following table shows the results of our monitoring for the period of *January 1st to December 31st 2011*.

All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791), or the Putnam County Health Department (845-278-6130).

Terminology

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

Non Detects (ND) - lab analysis indicates that the contaminant is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million. Corresponds to one minute in two years, or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion. Corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL) - the highest level of a contaminant 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 contamination.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant, below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants

Nephelometric Turbidity Units (NTU) – Measurement of the clarity of water. Turbidity in excess of 5.0 NTU is just noticeable to the average person.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
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Microbiological Contaminants - 3 x Monthly (Turbidity monitored daily)

1. Total Coliform Bacteria	NO	ND	Presence/Absence	0	Presence of coliform bacteria in 5% of Monthly Samples	Naturally present in the environment
2. Fecal Coliform & E. coli	NO	ND	Presence/Absence	0	a routine sample & repeat sample are total coliform positive and one is fecal coliform, or E. Coli, positive	Human and Animal fecal waste
3. Turbidity – Filter Effluent	NO	0.26 7/25/11	NTU	n/a	not to exceed 0.30 NTU in more than 5% of samples at entry point to the system	Soil runoff

*The highest reported turbidity for the year (total of 997 measurements) was 0.26 NTU, which occurred on 7/25/11. There was no MCL violation. The annual average of turbidity was 0.065 NTU

Disinfectant Residual – Annual Average Represented

Disinfectant	Violation Y/N	Level Detected	Unit of Measure	MRDLG	MRDL	Purpose
4. Sodium Hypochlorite	N	2.01*	mg/L	4.0	4.0	Primary disinfectant for control of microbial organisms

*The Highest reported level of Free Chlorine Residual, at the Entry Point, was 2.01 mg/L. The Quarterly averages were 1.84, 2.00, 2.14 and 1.98 mg/L

Inorganic Contaminants – Annually

Contaminant	Violation Y /N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
5. Sulfate	No	9.3	ppm	N/a	250.0	Naturally occurring
6. Barium	No	4.7	ppb	N/a	2000	Erosion of natural deposits. Discharge of drilling wastes

Disinfection Byproducts -Total Trihalomethanes – (TTHM), Haloacetic Acids (HAA) – Qtrly

7. TTHM 1 st Qtr	No	0.0273	ppm	0	0.08	Range = 0.019 : 0.0323	Byproduct of drinking water chlorination
8. TTHM 2 nd Qtr	No	0.0243	ppm	0	0.08	Range = 0.019 : 0.032	Byproduct of drinking water chlorination
9. TTHM 3 rd Qtr	No	0.0287	ppm	0	0.08	Range = 0.019 : 0.0446	Byproduct of drinking water chlorination
10. TTHM 4 th Qtr	No	0.0276	ppm	0	0.08	Range = 0.019 : 0.0446	Byproduct of drinking water chlorination
11. HAA 1 st Qtr	No	0.0329	ppm	0	0.06	Range = 0.0119 : 0.0586	Byproduct of drinking water chlorination
12. HAA 2 nd Qtr	No	0.0177	ppm	0	0.06	Range = 0.0119 : 0.0215	Byproduct of drinking water chlorination
13. HAA 3 rd Qtr	No	0.0265	ppm	0	0.06	Range = 0.0119 : 0.054	Byproduct of drinking water chlorination
14. HAA 4 th Qtr	No	0.0272	ppm	0	0.06	Range = 0.0119 : 0.054	Byproduct of drinking water chlorination

TTHM & HAA are reported as annual rolling averages, that is: results of that quarter, averaged with the previous 3 quarters (ex: 1st Qtr 2011, averaged with 4th, 3rd and 2nd quarters from 2010. 2nd Qtr 2011 with 1st of 2011, and 4th & 3rd of 2010, etc.) A new column this year shows the range of values from Low to High.

Nitrate – Quarterly

15. Nitrate	No	0.31	ppm	10	10	Range = 0.09 : 0.31	Erosion of natural deposits; runoff from fertilizer use; leaching from septic
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Lead & Copper – 90th percentile reportable value – Last tested September, 2010

16. Lead	No	0.003	ppm	0	15	Range = 0.001 : 0.004	Corrosion of household plumbing, erosion of natural deposits
17. Copper	No	0.130	ppm	1.30	1.30	Range = 0.07 : 0.17	Corrosion of household plumbing, erosion of natural deposits

Orthophosphate, as P – Monthly – Highest value listed

18. Orthophosphate	No	1.53 Annual Max	ppm	n/a	n/a	Range = 0.49 : 1.53	Corrosion Control addition to Distribution System
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Other Parameters

Chemicals which were tested for, but **Not Detected (ND)**:

Principal Organic Compounds (POC),

1,1,1,2-Tetrachloroethane; 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2-Trichloroethane; 1,1-Dichloroethane; 1,1-Dichloroethene; 1,1-Dichloropropene; 1,2,3-Trichlorobenzene; 1,2,3-Trichloropropane; 1,2,4-Trichlorobenzene; 1,2,4-Trimethylbenzene; 1,2-Dichloroethane; 1,2-Dichlorobenzene; 1,2-Dichloropropane; 1,3,5-Trimethylbenzene; 1,3-Dichlorobenzene; 1,3-Dichloropropane; 1,4-Dichlorobenzene; 2,2-Dichloropropane; Benzene; Bromobenzene; Chlorobromomethane; Bromomethane; n-Butylbenzene; cis-1,2-Dichloroethene; cis-1,3-Dichloropropene; Carbon tetrachloride; Chlorobenzene; Chloroethane; Chloromethane; 1,2-Dibromo-3-Chloropropane; Dibromomethane; Dichlorodifluoromethane; Ethylene Dibromide; Ethylbenzene; Hexachlorobutadiene; Isopropylbenzene; 4-Isopropyltoluene; Methylene Chloride; m-Xylene & p-Xylene; Naphthalene; 2-Chlorotoluene; o-Xylene; Tetrachloroethene; 4-Chlorotoluene; N-Propylbenzene; sec-Butylbenzene; Styrene; trans-1,2-Dichloroethene; trans-1,3-Dichloropropene; tert-Butylbenzene; Trichloroethene; Trichlorofluoromethane; Toluene; Vinyl chloride Methyl tert-butyl ether (MTBE)

Radionuclides – last tested 12/2008,

Radium 238; Gross Alpha; Gross Beta; Radium 226; Total Uranium

Synthetic Organic Compounds (SOC), including Pesticides & Herbicides – last tested 12/2008,

Alachlor; Atrazine; Benzo[a]pyrene; Bis(2-ethylhexyl) phthalate; Di(2-ethylhexyl)adipate; Hexachlorobenzene; Hexachlorocyclopentadiene; Butachlor; Simazine; Metolachlor; Metribuzin; Propachlor; Endothal; 3-Hydroxycarbofuran; Oxamyl; Carbofuran; Aldicarb; Aldicarb sulfone; Aldicarb sulfoxide; Carbaryl; Methomyl; Glyphosate; Diquat; 1,2-Dibromo-3-Chloropropane; Ethylene Dibromide; Aldrin; Chlordane (technical); Endrin; gamma-BHC (Lindane); Heptachlor; Heptachlor epoxide; Methoxychlor; Dieldrin; PCB-1016; PCB-1221; PCB-1232; PCB-1242; PCB-1248; PCB-1254; PCB-1260; Toxaphene; Polychlorinated biphenyls, Total; 2,4-D; Dalapon; Dinoseb; Pentachlorophenol; Picloram; Dicamba; Silvex (2,4,5-TP);

Unregulated Contaminant Monitoring Regulation – EPA (UCMR2) – Screening Survey

NDBA; NDEA; NDMA; NDPA; NMEA; NPYR; Acetochlor; Alachlor; Metolachlor; Acetochlor ESA; Acetochlor OA; Alachlor ESA; Alachlor

Do We Fluoridate the Drinking Water?

A frequently asked question, usually by the parents of infants and young children: *The answer is no.* The proper dose of Fluoride can be administered more effectively with supplements.

Lead & Copper

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 construction. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the *Safe Drinking Water Hotline (1-800-426-4791)*.

What does all of this mean?

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water *IS SAFE* at these levels.

Who Is Most Vulnerable?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as: persons with cancer undergoing chemotherapy; persons who have undergone organ transplants; people living with HIV/AIDS, or other immune system disorders; some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the *Safe Drinking Water Hotline (800-426-4791)*.

Things You Can Do to Protect Your Investment

Most people take for granted the idea that turning on a faucet will yield an ample supply of water. Increased pressures in the distribution system can place excess wear on piping and fixtures in the home, if not protected. The following are some precautionary actions that can be taken:

- ✓ Have a licensed plumber check the pressure in your building, and if necessary, install a pressure-regulating valve, as well as a dual check valve. Both items are relatively inexpensive, yet provide a great amount of protection to your plumbing.
- ✓ You should also have your plumber assess the quality of the piping as it enters your building. If the line is constructed of any material other than copper tubing (i.e. – galvanized pipe, iron pipe, etc.), you should make plans to have the line replaced. The cost and inconvenience of replacing a line in July is markedly less expensive than one replaced in January.

Conservation Is The Key

It is important to remember that our water resources are limited. The practice of conservation is one to pass on to our children and community by example.

- ✓ When turning on a hot water tap – don't waste the first few gallons down the drain, waiting for the hot water. Put a container near the faucet, and use it to water plants, etc.
- ✓ Water outdoor plants and gardens after dusk. When watering during the day, much of the water is lost to evaporation.

Final Thought

The Cold Spring Water Department works very hard to provide top quality water to every tap. We ask that all of our customers help us to protect and conserve our water resources, which are the heart of our community, our lives and our children's future.