Annual Drinking Water Quality Report for 2017
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 2017. 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 201 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 (845) 656-3800. The Mayor & Board of Trustees act as the Board of Water Commissioners. Their meetings are held on Tuesday evenings, beginning at 7:30 p.m. in the Village Hall. More information on those meetings can be found on the Village website: *www.coldspringny.gov*

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 & Lower reservoirs are located off of Lake Surprise Road - approximately 3.5 miles northeast of the villages. From the Lower reservoir, the supply flows via the Foundry Brook to the Foundry Brook 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. 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.

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 New York State Department of Health conducted a Source Water Assessment Program (SWAP) regarding the susceptibility of our reservoirs to various contaminants. The following is the executive summary of the SWAP document:

> "The assessment area for this drinking water source contains no discrete Potential Contaminant Sources (PCSs), and none of the land cover contaminant prevalence ratings are greater than low. However, the high mobility of microbial contaminants in reservoirs results in this drinking water intake having medium-high susceptibility ratings for protozoa and enteric bacteria and viruses. Furthermore, reservoirs are highly susceptible to water quality problems caused by phosphorus additions".

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 2017*. 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
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	0.34 11/1/2017	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 635 measurements) was 0.34 NTU, which occurred on 11/1/17. There was no MCL violation. The annual average of turbidity was 0.08 NTU

Disinfectant Residual – Annual Average Represented

Disinfectant	Violation Y/N	Level Detected	Unit of Measure	MRDLG	MRDL	Purpose
4. *Sodium Hypochlorite	NO	2.20	mg/L	4.0	4.0	Primary disinfectant for control of microbial organisms

*The highest reported level of Free Chlorine Residual, at the Clearwell, was 4.5 mg/L. The Quarterly averages were 1.62, 2.0, 2.61 and 2.46 mg/L.

Inorganic Contaminants – Annually

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
5. Sulfate	NO	12	ppm	n/a	250.0	Naturally occurring
6. Barium	NO	6.9	ppb	n/a	2000	Erosion of natural deposits. Discharge of drilling wastes
7. Nickel	NO	0.58	ppb	100	100	Erosion of natural deposits

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

8. TTHM 1st Qtr	NO	0.0378	ppm	0	0.08	Range = 0.014 : 0.074	Byproduct of drinking water chlorination
9. TTHM 2nd Qtr	NO	0.0355	ppm	0	0.08	Range = 0.014 : 0.074	Byproduct of drinking water chlorination
10 TTHM 3rd Qtr	NO	0.030	ppm	0	0.08	Range = 0.014 : 0.052	Byproduct of drinking water chlorination
11. TTHM 4th Qtr	NO	0.0438	ppm	0	0.08	Range = 0.019 : 0.069	Byproduct of drinking water chlorination
12. HAA 1st Qtr	NO	0.0317	ppm	0	0.06	Range = 0.0146 : 0.057	Byproduct of drinking water chlorination
13. HAA 2nd Qtr	NO	0.0218	ppm	0	0.06	Range = 0.0146 : 0.037	Byproduct of drinking water chlorination
14. HAA 3rd Qtr	NO	0.0364	ppm	0	0.06	Range = 0.0146 : 0.039	Byproduct of drinking water chlorination
15. HAA 4th Qtr	NO	0.0328	ppm	0	0.06	Range = 0.0146 : 0.060	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 2017, averaged with 4th, 3rd and 2nd quarters from 2016. 2nd Qtr 2017 with 1st of 2017, and 4th & 3rd of 2016, etc.)

Nitrate – **Quarterly**

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination	
16. Nitrate	NO	0.25	ppm	10	10	Range = 0.16 : 0.25	Erosion of natural deposits; runoff from fertilizer use; leaching from septic

Lead & Copper – 90th percentile reportable value – *Last tested September, 2016*

17. Lead	NO	0.001	ppm	0	0.015	Range = 0.001 : 0.0065	Corrosion of household plumbing, erosion of natural depositS
18. Copper	NO	0.17	ppm	1.30	1.30	Range = 0.036 – 0.19	Corrosion of household plumbing, erosion of natural deposits

Orthophosphate, as P – Monthly – Highest value listed

19. Orthophosphate	NO	1.65 Annual Max	ppm	n/a	n/a	Range = 0.77 : 1.65	Corrosion Control in Distribution System

Other Parameters

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

***Inorganics**, last tested 2017*
Arsenic, Beryllium, Cadmium, Chromium, Antimony, Thallium, Selenium, Mercury, Fluoride, Cyanide (total)

***Principal Organic Compounds (POC),** last tested 2017,*
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; Bromochloromethane; Bromomethane; n-Butylbenzene; cis-1,2-Dichloroethene; cis-1,3-Dichloropropene; Carbon tetrachloride; Chlorobenzene; Chloroethane; Chloromethane; Dibromomethane; Dichlorodifluoromethane; Ethylbenzene; Hexachlorobutadiene; Isopropylbenzene; Methylene Chloride; m-Xylene & p-Xylene; 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 p-Isopropyltolulene; Xylenes, Total; Methyl tert-butyl ether (MTBE)

***Radionucleids** – last tested 12/2017,*
Radium 228; Gross Alpha; Radium 226; Total Uranium

***Synthetic Organic Compounds (SOC), including Pesticides & Herbicides** – last tested 12/2014,*
Alachlor; Atrazine; Benzo[a]pyrene; Bis(2-ethylhexyl)adipate; Bis(2-ethylhexyl)phthalate; Hexachlorobenzene; Hexachlorocyclopentadiene; Butachlor; Simazine; Metolachlor; Metribuzin; Propachlor; 3-Hydroxycarbofuran; Oxamyl; Carbofuran; Aldicarb; Aldicarb sulfone; Aldicarb sulfoxide; Carbaryl; Methomyl;1,2-Dibromo-3-Chloropropane; Aldrin; Chlordane (technical); Endrin; gamma-BHC (Lindane); Heptachlor; Heptachlor epoxide; Methoxychlor; Dieldrin; PCB-Total; Toxaphene; Dalapon; Dinoseb; Pentachlorophenol; Picloram; Dicamba; Silvex (2,4,5-TP); 2,4-D; 1,2-Dibromoethane; Diedrin; Methoxychlor; Propachlor; 2,4-D; 3-Hydroxycarbofuran; Glyphosate; Benzo(a)pyrene; bis(2-Ethylhexl)adipate; bis(2-Ethylhexl)phthalate; Metribuzin

Unregulated Contaminant Monitoring Regulation – EPA (UCMR2) – Screening Survey
NDBA; NDEA; NDMA; NDPA; NMEA; NPYR; Acetochlor; Alachlor; Metolachlor; Acetochlor ESA; Acetochlor OA; Alachlor ESA; Alachlor OA; Metolachlor ESA, Metolachlor OA

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. While we have learned through our monitoring and testing that some contaminants have been detected, we're proud that your drinking water meets or exceeds all Federal and State requirements.

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. Both items are also required by Village Code

- ✓ 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

Although our system has an adequate amount of water to meet present and projected future demands, there are a number of reasons why it is important to conserve water:

- ✓ Saving water reduces the cost of energy and chemicals required to process water;

- ✓ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid water use restrictions.

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. Conservation tips include:

- ✓ Time Your Shower – keep it under 5 minutes and you'll save approximately 1,000 gallons per month.

- ✓ Teach children to turn off taps and faucets tightly to avoid drips

- ✓ Turn off the tap while brushing your teeth.

- ✓ While waiting for hot water from the tap, run water into a jug for watering household plants.

- ✓ Check every faucet in your home for leaks. 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 one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

- ✓ If you still have a standard toilet, which uses close to 3.5 gallons per flush, you can save by retrofitting or filling your tank with something that will displace some of that water, such as a brick

- ✓ If you use a low-flow showerhead, you can save 15 gallons of water during a 10-minute shower.

- ✓ It takes about 70 gallons of water to fill a bathtub, so showers are generally the more water-efficient way to bathe.

- ✓ Every minute you shave off of your use of hot water, you also save energy and keep dollars in your pocket.

Outdoor Use Conservation Tips

- ✓ Avoid recreational water toys that require constant water flow
- ✓ When washing your car, or your home siding, use a pressure washer & save gallons of water while getting a cleaner result.
- ✓ Most lawns only need about 1" of water each week. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, the lawn is ready for watering.
- ✓ Letting the grass grow taller (to 3") will also promote water retention in the soil.
- ✓ Placing mulch around plants and trees will reduce evaporation.
- ✓ Use a broom to clean patios and driveways, not water.

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.