Annual Drinking Water Quality Report for 2014

Village of Corinth

244 Main Street, Corinth, NY 12822

(Public Water Supply Identification Number NY4500164, NY4511621, and NY4511622)

INTRODUCTION

To comply with State regulations, the Village of Corinth, will be annually issuing a 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. 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 New York State standards. Our constant goal is and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: *Mr. Arthur A. Lozier III, DPW Superintendent, Village of Corinth, 421Mill Street, Corinth, NY 12822; Telephone (518) 654-2373.* We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. They are held the 1st and 3rd Wednesday of each month, 6:00 PM at the*16 Saratoga Avenue Firehouse*, Telephone *(518) 654-2012*.

WHERE DOES OUR WATER COME FROM?

The Village of Corinth draws its water from two drilled wells located on Hamilton Avenue. Well #1 represents the primary production well for the Village water supply and consists of a drilled well 71-feet in depth with an 18-inch casing. The well was developed and first used by the Village in 1963. Well #2 was developed in 1992 and consists of a drilled well 73-feet in depth with an 18-inch casing. Pumping capacity for each well is approximately 825 gallons per minute. Treatment of the raw water produced by the wells consists of gas chlorination, which is used for disinfection to protect against contamination from harmful bacteria and other organisms. We also add a blended phosphate additive (Carus Chemical K-5) to lessen iron and manganese corrosion in areas where there is older pipe. The Carus Chemical K-5 product acts as both a corrosion inhibitor and sequestering agent thus reducing the risk of discoloration, staining scaling and other water quality complaints. The blended phosphate was discontinued on 11/11/14. We have a 500,000-gallon concrete storage tank located on County Route 10 West Mountain Road to meet consumer demand and provide adequate fire protection.

The source water assessment performed by the New York State Health Department has rated our source water as having an elevated susceptibility to microbial contamination and nitrates. It should be noted that the SWAP looks at the untreated water only. Our water is treated to minimize the potential sources of contamination. The SWAP summary for our water supply is attached to this report.

The NYSDOH classified our raw water as Ground Water Under the Direct Influence of Surface Water, sometimes referred to as GWUIDI. We were required to install filtration by June 2008 and subsequently additional deadlines were issued in the intervening years. The NYSDOH issued us violations for failure to comply with the Surface Water Treatment Rule. As a result of the use of unfiltered surface prior December 13 2014 we are required to include the following statement in this report:

"Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.""

The Village has completed construction on a cartridge filtration plant. The new Water Treatment Plant went on line 12/13/14. As a result we are now compliant with SWTR. The Village of Corinth operates a water treatment plant that utilizes micron cartridge filters and chlorination. After the water is filtered it flows to a 90,000 gallon clearwell foundation under the filtration plant for chlorine mixing and proper contact time to adequate disinfection.

In general, 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 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 EPA prescribe regulations, which limit the amount of certain contaminants in water, provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

FACTS AND FIGURES

We provide water through 1,590 service connections in Village of Corinth that includes 377 service connections outside the district to a combined population of approximately 4,000 people. In 2014 the Village delivered 173,491,000 gallons of water. Our average daily demand is 475,318 gallons. Our highest single day was 814,000 gallons. Water services are not metered. Customers inside the Village pay $212.00 per year while customers outside the Village pay $334.00 per year for their water.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Village of Corinth routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test 5 samples for coliform bacteria monthly. The table on page 4 depicts which contaminants were detected in your drinking water. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old and is noted. For a listing of the parameters we analyzed that were not detected along with the frequency of testing for compliance with the NYS Sanitary Code, see Appendix A.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of 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 New York State Department of Health Glens Falls District Office at (518) 793-3893.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table on page 4, our system had no violations. We have learned through our monitoring and testing that some constituents have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Continued monitoring 500,000 gallon tank detected elevated levels of organic compounds, principally Meta & Para Xylene and Ortho-Xylene. The tank had been recoated for preventative maintenance purposes. The Federal Standard for Xylenes is 10,000 ug/l. The sample collected 2/3/14 had Meta & Para xylene at 13 ug/l and Ortho xylene was 5.1 ug/l. The sample collected 2/24/14 had Meta & Para xylene at 9.8 ug/l and Ortho xylene was 3.1 ug/l. The average of the 2 samples for Meta & Para xylene was 11.4 and in excess of the MCL of 5 ug/l. Although the water is considered safe for human consumption by federal water quality standards, we are recommending that Village of Corinth customers use their own judgment while we await the new tests results. Information concerning this issue will be communicated to the public as soon as it becomes available. We assure the public that this situation is temporary.

Again, the elevated levels were a result of a preventative maintenance program; the ground water source does <u>not</u> contain these contaminants.

The potential adverse health effects for long term exposure to the above organic, as provided by the New York State Department of Health, is as follows: **Xylenes (total): Some people who drink water containing xylenes well in excess of the MCL over many years could experience damage to their nervous system.**

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2014, the Village of Corinth failed to comply with the Surface Water Treatment Rule (SWTR). The NYSDOH had required compliance by June 30, 2008. The Village was unable to meet this deadline and the State issued a Treatment Technique Violation to the Village for failure to meet the Surface Water treatment result. As a result of the use of unfiltered surface water we are required to include the following statement in this report:

<u>"Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches."</u>

As we previously mentioned, we are looking to install a filtration system to comply with the SWTR. The filtration system is currently under construction, and should be completed sometime in 2014.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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. 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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ON LEAD

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. The Village of Corinth is 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 *http://www.epa.gov/safewater/lead*

WATER CONSERVATION TIPS

There are a lot of things you can do to conserve water in your own home. The following tips may alert you to serious water wasting habits many of us have fallen into.

- Only run the dishwasher and clothes washer when there is a full load.
- Use water saving showerheads.
- Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute.
- Water gardens and lawn for only a coupe of hours after sunset.
- Residents should report any noises of running water that they cannot find.

CAPITAL IMPROVEMENTS

The following projects were completed in 2014:

- Construction of our new Cartridge Water Treatment Plant was completed on 12/12/14 and brings us in compliance with the SWTR.
- We installed 3,400 feet of new 8 inch ductile iron class 52 water pipe on Walnut Street and 850 feet of 6 inch ductile iron class 52 water pipe on Warren Street.
- In 2015 we will install new 8 inch ductile iron class 52 water pipe on Pine Street from 6th to Palmer Ave.

CLOSING

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions.

VILLAGE OF CORINTH DETECTED CONTAMINANTS Public Water Supply Identification Number NY4500164						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants (samples from 2/3/14 unless otherwise noted)						
Arsenic	N	0.9	ppb	N/A	10	Geology; Naturally occurring
Barium	N	1.7	ppb	2000	2000	Erosion of natural deposits
Chloride	N	12.3	ppm	N/A	250	Geology; Naturally occurring
Copper (samples from 8/14/12) Range of copper concentrations	N	0.24[1] ND-0.30	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (samples from 8/14/12) Range of lead concentrations	N	2[2] ND-10	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
pH	N	6.54	units		6.5-8.5	
Sodium[3]	N	9.4	ppm	N/A	N/A	Geology
Sulfate	N	6.2	ppm	N/A	250	Geology
Stage 2 Disinfection Byproducts (samples from 2/3/14, 5/7/14, 8/4/14 & 11/4/14)						
Total Trihalomethanes 421 Mill Street[5] range of values	N	3.1 ND-5.2	ppb	0	80	By-product of drinking water chlorination
Total Trihalomethanes 27 Beach Street[5] range of values	N	0.8 ND-2				
Total Trihalomethanes Eastern Ave WD from 8/4/14	N	6.9				
Haloacetic Acids 421 Mill Street[5] range of values	N	1.4 ND-1.6	ppb	N/A	60	By-product of drinking water chlorination
Chlorine Residual (average) (range) (based on daily samples)	N	0.48 0.27-1.57	ppm	MRDLG N/A	MRDL 4	By-product of drinking water chlorination
Microbiological Contaminants						
Turbidity	N	0.37[4]	NTU	N/A	TT=5	Soil runoff
Principal Organic Compounds (Volatile Organic Compounds) sample from 2/3/14, 2/24/14, 4/7/14, 6/2/14,8/4/14, 9/8/14, 11/3/14 & 12/1/14 from 500,000 gallon Storage Tank[6])						
1,2,4-Trimethylbenzene (range) average	N	ND-1.3 1.3	ppb	N/A	5	Leaching of solvent from lining of potable water tanks
Meta & Para- xylene (range) average	**Y**	ND-13 3.8	ppb	N/A	5	
Ethylbenzene (range) average	N	ND-2.4 0.74	ppb	N/A	5	
Ortho-Xylene (range) average	N	ND-5.1 1.5	ppb	N/A	5	
N-propybenzene (range) average	N	ND-0.6 0.34	ppb	N/A	5	

FOOTNOTES-

1. The level presented represents the 90th percentile of 20 test sites. The action level for copper was not exceeded at any of the 20 sites tested in August.
2. The level presented represents the 90th percentile of 20 test sites. The action level for lead was not exceeded at any of the 20 sites tested in August.
3. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.
4. Turbidity is a measure of the cloudiness of the water. We are required to monitor turbidity in the interim 5 times a week from the distribution system and we had the highest turbidity of 0.37 NTU on 12/3/14.
5. The average is based on a Locational Running Annual Average (LRAA) for the four quarters of 2014. The highest LRAA for the TTHM and HAA5 was in the 4th quarter of 2014 at each of the sites
6. These compounds do not represent the quality of our well water but are a result of solvent leaching from the newly recoated water storage tank. We expect the concentrations to decrease over the next several months.

Non-Detects (ND) - laboratory analysis indicates that the constituent 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 - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.
90th Percentile Value- The values reported for lead and copper represent the 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.
Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal The "Goal" (MCLG) is 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.
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 contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health.
Locational Running Average (LRAA) - The LRA is calculated by taking the average of the four most recent samples collected at each individual site.
N/A-Not applicable

Appendix

New York State Sanitary Code Compliance Monitoring Requirements- Compounds Analyzed that were Below Limits of Detection

VILLAGE OF CORINTH TEST RESULTS Public Water Supply Identification Number NY4500164					
CONTAMINANT	MONITORING FREQUENCY		CONTAMINANT	CONTAMINANT	MONITORING FREQUENCY
Asbestos	1 sample every 9 years Sample from 5/2/11 **Non-Detect**		**POC's (Volatile Organic Compounds)**		
			Benzene	Trans-1,3-Dichloropropene	Monitoring requirement is one sample every 3 years **Non-Detect** Sample from 1/7/12
			Bromobenzene	Ethylbenzene	
			Bromochloromethane	Hexachlorobutadiene	
Antimony	Monitoring requirement is 1 sample every year **Non-Detect** Sample from 2/3/14		Bromomethane	Isopropylbenzene	
			N-Butylbenzene	p-Isopropyltoluene	
			sec-Butylbenzene	Methylene Chloride	
Beryllium			Tert-Butylbenzene	n-Propylbenzene	
Cadmium			Carbon Tetrachloride	Styrene	
Chromium			Chlorobenzene	1,1,1,2-Tetrachloroethane	
Cyanide			2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
Mercury			4-Chlorotoluene	Tetrachloroethene	
Selenium			Dibromethane	Toluene	
Thallium			1,2-Dichlorobenzene	1,2,3-Trichlorobenzene	
Fluoride			1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
Nickel			1,4-Dichlorobenzene	1,1,1-Trichloroethane	
			Dichlordifluoromethane	1,1,2-Trichloroethane	
			1,1-Dichloroethane	Trichloroethene	
			1,2-Dichloroethane	Trichlorofluoromethane	
			1,1 Dichloroethene	1,2,3-Trichloropropane	
Color	Monitoring requirement is at State discretion **Non-Detect** Samples from 2/3/14		cis-1,2 Dichloroethene	1,2,4-Trimethylbenzene	
Iron			Trans-1,2-Dichloroethene	1,3,5-Trimethylbenzene	
Zinc			1,2 Dichloropropane	m-Xylene	
Manganese			1,3 Dichloropropane	o- Xylene	
Odor			2,2 Dichloropropane	p-Xylene	
			1,1 Dichloropropene	Vinyl Chloride	
			Cis-1,3-Dichloropropene	MTBE	
			Total Colifrom		Monitoring is 5 samples a month **Non-Detect**
			E. coli		
Turbidity Entry Point	N/A		**Radiological Parameters**		
			Gross Alpha		Quarterly Samples 2/4/13
			Radium 226 , Radium 228		
Regulated & Unregulated Synthetic Organic Chemicals					
Synthetic Organic Chemicals (Group I)			**Synthetic Organic Chemicals (Group II)**		
Alachlor	Aldicarb		Aldrin	Benzo(a)pyrene	Monitoring requirement is one sample every 18 months **Non-Detect** Sample from 11/3/14 ***State waiver does not require monitoring these compounds**
Aldicarb Sulfoxide	Aldicarb Sulfone		Butachlor	Carbaryl	
Atrazine	Carbofuran		Dalapon	Di(2-ethylhexyl)adipate	
Chlordane	Dibromochloropropane		Di(2-ethylhexyl)pthalate	Dicamba	
2,4-D	Endrin		Dieldrin	Dinoseb	
Ethylene Dibromide	Heptachlor		Diquat*	Endothall*	
Lindane	Methoxyhlor		Glyphosate*	Hexachlorobenzene	
PCB's	Toxaphene		Hexachlorocyclopentadiene	3-Hydroxycarbofuran	
2,4,5-TP (Silvex)			Methomyl	Metolachlor	
			Metribuzin	Oxamyl vydate	
			Pichloram	Propachlor	
			Simazine	2,3,7,8-TCDD (Dioxin)*	

Corinth Village

Corinth Village
NY45001 64
Source Water Assessment Summary

The NYS DOH 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 source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how rapidly contaminants can move through the subsurface to the wells. The susceptibility of a water supply well to contamination is dependent upon both the presence of potential sources of contamination within the well's contributing area and the likelihood that the contamination can travel through the environment to reach the well. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated**.** See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

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

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 full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.