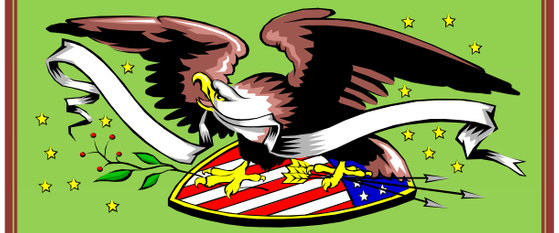
The security of water systems around the country continues to be a concern. The FBI does not consider contamination of water supplies with deadly biological agents a probable or effective threat given dilution and treatment barriers, but cautions that greater threat involves disruption of treatment processes or delivery of service. The Town of Cortlandville has implemented a number of security measures since the tragedy of 9/11. Security lighting, alarm systems and more frequent inspections of our facilities are just a few of the measures that have been taken. Letters have also been sent to local law enforcement requesting that patrols be increased around our facilities whenever possible. If you live by a water tank or pump station and notice suspicious activity occurring around these facilities, please report it to the authorities immediately.

The Cortlandville Water Department would like to reassure everyone that through the efforts of the Cortland County Health Department, local Law Enforcement, the FBI and the watchful eye of the public, everything possible is being done to protect our water supply.

Frequently Requested Information from the Town of Cortlandville.

7.4 pH (mg/l)
211 Hardness, average (mg/l).
42-48 Water temperature range from tap (deg F).
Chlorine: This is the only thing added to the water supply and its purpose is for disinfection.
0.5 Chlorine residual level average (mg/l).



TOWN OF CORTLANDVILLE
WATER DEPARTMENT
2019
Annual Water Quality Report For The Year 2018

3577 Terrace Road
Office: 607-756-9637
Fax: 607-758-9637
www.cortlandville.org
Emergency (after hours) 607-756-9637

Public Water Supply Number
NY1101755

TOWN BOARD MEMBERS

Richard C.Tupper, **Supervisor**

Councilmen
Theodore Testa
John C. Proud
C. Randolph Ross
Douglas Withey

Town Attorney
John Folmer

Report Prepared By:
Peter Alteri Jr.

Serving Cortlandville for Sixty Years 1959-2019

Town of Cortlandville Water Facts and Figures

The Cortlandville Water System serves approximately 4,000 people through 1,400 service connections. The total water produced in 2018 was **273,705,000** gallons. The daily average of water treated and pumped into the distribution system was **750,000** gallons per day. The amount of water delivered to customers in 2018 was **224,034,459** gallons (This figure also includes pool fills and system flushing activities). This leaves an unaccounted for total of **49,670,541** gallons of water or **18 percent** of the total water pumped.

Our water source is from two ground water wells at separate locations. At one location, water is drawn from a 92' deep drilled well utilizing a 100H.P. motor. This well will produce approximately 1100 gallons per minute. The second well location draws groundwater from a drilled well that is 62' deep and a 60H.P. motor powers a pump that yields approximately 725 gallons per minute. The water is treated with 3 lbs. of gaseous chlorine for every 750,000 gallons produced prior to distribution.

During 2018, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements. Last year, we conducted tests for over 80 contaminants. We detected 1 of those contaminants, and only found 1 of those contaminants at a level higher than the State allows. As we told you at that time, our water temporarily exceeded a drinking water standard and we rectified the problem by taking the well out of service and disinfecting the well casing with a solution of chlorine.

Our water comes from the Otter-Creek Aquifer. An aquifer is a saturated bed formation or group of formations, which yields water in sufficient quantity to be economically useful. To be an aquifer a geologic formation must contain pores or open spaces that are filled with water. These spaces must be large enough to transmit water toward wells at a useful rate. Cortlandville has a large, yet vulnerable, water supply. The Otter/Dry Creek Aquifer has been designated as a "Sole Source Aquifer" serving both the City of Cortland and the Town of Cortlandville.

Water/Sewer Rates

Water Rates	
0 to 6,000 gal.	$24.05 Minimum
6,001 & Up	$4.11 per 1,000 gal
Industrial	$3.35 per 1,000 gal

Sewer Rates	
0 to 6,000 gal.	$28.00 Minimum
6,001 & Up	$5.60 per 1,000 gal.
Industrial	$2.90 per 1,000 gal.

** Based on water consumption.

The Cortlandville Town Board meets twice a month on the first Wednesday at 5:00pm and the third Wednesday at 5:00pm at 3577 Terrace Road, Town Hall. Please call ahead to confirm.

The Cortlandville Water Department works together with the Cortland County Health Department in providing the safest water possible. For more information on water quality and the effects of contaminants and microorganisms, visit your local Health Department at 60 Central Avenue, Cortland, New York 13045 or call 607-753-5035.

If you have received this report as manager of a business or multi-family dwelling, please post it in a prominent place so that the information will be available to employees' and/ or residents. If you would like additional copies of the report, have comments, or would like to offer suggestion for future reports, please contact the Cortlandville Water Department at 607-756-9637.

Water-Rich Foods That Help You Stay hydrated

While drinking water is very important, you can also get it from foods. Below is a list of foods and the percentage of Water they contain. Can you find the words?

WATERMELON (92%) STRAWBERRIES (91%) CANTALOUPE (90%) PEACHES (89%)

ORANGES (88%) CUCUMBER (95%) LETTUCE (96%) ZUCCHINI (94%) CELERY (95%)

TOMATOES (94%) BELL PEPPERS (92%) CAULIFLOWER (92%) CABBAGE (92%)

P	E	A	R	S	T	F	R	E	W	O	L	F	I	L	U	A	C	A	B
E	P	U	O	L	A	T	N	A	C	H	E	R	R	I	E	S	T	T	Y
A	E	C	U	C	U	M	T	B	L	U	E	B	E	R	R	E	S	T	B
C	A	S	T	R	B	E	R	R	I	L	I	V	R	W	A	O	A	Z	E
H	S	C	S	T	R	A	W	B	E	R	R	I	E	S	E	M	A	P	L
E	O	C	E	M	S	M	I	T	I	N	I	H	C	C	O	Z	I	C	L
S	U	E	E	E	M	I	T	I	T	S	M	E	O	T	R	A	W	U	P
P	P	L	E	T	Z	U	C	C	H	I	N	I	Z	R	A	A	L	C	E
I	O	E	H	S	C	U	C	U	M	B	R	E	R	T	A	E	E	U	P
N	V	R	Y	E	W	A	C	M	E	L	O	E	R	T	N	N	T	M	P
A	O	I	E	A	P	P	L	E	S	I	L	E	A	S	G	O	G	B	E
M	H	P	A	I	R	S	I	N	N	E	W	E	N	G	L	A	N	E	R
E	C	E	L	E	R	Y	O	U	C	A	B	B	A	G	E	L	S	R	S
H	N	G	R	A	P	E	S	F	L	O	W	E	G	A	R	E	P	S	A
H	A	M	S	O	U	P	S	A	R	S	E	O	T	A	M	O	T	E	D

Our Mission

Water is essential to all and the public water supply should be safe for all to drink and because individuals vary in their susceptibility and responses to substances as well as in the amount of water they consume. It is our belief that the public water supply should never be used to deliver any product, substance, device, element, medicine or agent with the intent or for the purpose of affecting the physical or mental functions of the body of any person or persons consuming such water. We, the employees of the Town of Cortlandville Water Department, are dedicated to delivering to our customers, in a professional and courteous manner, a quality product at sufficient pressure, in sufficient volume, at a reasonable price and containing only those chemicals necessary to make the water safe. Customer safety and satisfaction is our number one concern.

TERMS YOU NEED TO KNOW

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowable in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below, which there is a known or expected health risk. MCLGs allow for a margin of safety.

Non-Detect (ND): Laboratory analysis indicates that the constituent is not present.

Milligrams Per Liter (mg/l): Corresponds to one part of liquid to one million parts of liquid (parts per million-ppm). One part per million (1mg/l) is the same as: One cent in $10,000, one bad apple in 2,000 barrels, one minute in two years or one inch in 16 miles.

Micrograms Per Liter (ug/l): Corresponds to one part of liquid to one billion parts of liquid (parts per billion-ppb). One part per billion is the same as: One cent in $10 million, one bad apple in 2 million barrels, one second in 32 years or one inch in 16,000 miles.

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

Picocuries per liter (pCi/l): The measure of radioactivity in water.

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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination

Lead & Copper Sampling Is Performed Every 3 Years.
(Based on 20 samples)

Lead: Sampling during 2016 revealed a range of lead detection from N.D. to a high of 5.0 ug/l. We had no samples at the 90th percentile above the AL (action level) of 15 ug/l. The 90th percentile sample was 3.0 ug/l. No violation.

Copper: Sampling during 2016 revealed a range of copper detection from a low of 22 ug/l to a high of 154 ug/l. We had no samples above the AL (action level) of 1,300 ug/l and the 90th percentile was 104 ug/l. No violation.

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

Radon

Radon is a naturally occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil and under homes.

In 2011 we collected two representative water samples (one from each well house) that were analyzed for radon. The average of the two samples was 561.0 picocuries/liter (pCi/l).

For additional information call your state radon program (1-800-458-1158 or call EPA's Radon Hotline (1-800-SOS-Radon) or the Cortland County Department of Environmental Health at 753-5035.

SYSTEM IMPROVEMENTS

In 2018 we detected a fecal indicator of E. coli from the raw water at our Terrace rd. well. The sample tested positive for E. coli. A repeat sample was taken from the well and 4 more from the distribution system after the chlorine injection point. The sample from the well came back positive for E. coli, but the distribution samples came back clean. This means that at no time was the Public Health compromised. However, as a precaution, the Terrace road well was immediately taken off line.

This was not an emergency due to the immediate corrective action taken and the extensive distribution sampling that was conducted. If it had been an emergency the Public would have been notified within 24 hours. The Town worked closely with State and Local Health officials through the entire process.

At this time we have taken the necessary steps to totally disinfect the well casing with a solution of chlorine. We also are in the process of having engineered plans drawn up for the installation of approximately 350' of 24" piping that will allow additional chlorine contact time (CT) with the pumped water. The increased contact time will kill any harmful pathogens in the pumped water before it enters the distribution system. As an additional measure, we will continue with monthly raw water sampling to ensure its safety.

The CT pipe installation should be complete by April 2019.

Educational Information

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. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline at (1-800-426-4791).

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised persons with cancer undergoing chemotherapy, persons who have undergone transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk for infection. 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 (1-800-426-4791).

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 animal or from human activities. Contaminants; pesticides and herbicides; organic chemical contaminant; 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 regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Source Water Assessment

Source Water Assessment Summary.

The NYS DOH has completed a source water assessment for our system, which rates the susceptibility of our wells to potential contamination. The rating does not mean that the water delivered to consumers is or will become contaminated. As mentioned previously, our water is derived from two wells. The source water assessment has rated these wells as having a medium-high to high susceptibility to microbial, nitrate, industrial solvent, petroleum product, metal, pesticide/herbicide, cation/anion other industrial contaminants. These ratings are due primarily to the highly permeable aquifer from which the water source is derived as well as due to the close proximity to the wells and assessment area of specific land types and activities.

Ongoing Source Water Protection.

The Town's wells are located in the Cortland-Homer-Preble Sole Source Aquifer System. This means that Cortlandville relies completely on this aquifer for drinking water and has no other source for its water supply. The Town of Cortlandville has an aquifer protection district, which includes the Town's wells. This district requires permitting of most new, non-residential developments and provides land use restrictions for these developments within two aquifer zones. The Town is also in the process of implementing a wellhead protection district to provide greater controls within the contribution areas of the well sources. The Town has sought public input for this district.

A copy of the Source Water Assessment or Aquifer Protection District specifics can be obtained by contacting the Town or the Cortland County Health Department.

As State regulations require, Cortlandville Water Department routinely tests your drinking water for numerous contaminants. Those contaminants detected are listed below. (A) well #1 (B)Well #2

Contaminant	Units	MCLG	Regulatory Limit	Well Site	Violation Yes / No	Sample Date	Level Detected	Source In Drinking Water	Health Effects Language
Inorganics									
Barium	ug/l	2,000	2,000	A	No	3/2/2017	36	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits.	Some people who drink water containing Barium in excess of the MCL over many years could experience an increase in their blood pressure.
				B	No	3/1/2017	48.8		
Chromium		100	100	A	No	3/2/2017	1.3	Discharge from steel amd pulp mills; erosion of natuarl deposits.	Some people who use water containing Chromium well in excess of the MCL, over many years could experience allergic dermatitis.
Chloride	mg/l	N/A	250	A	No	3/1/2018	34.7	Naturally occurring or indicative of road salt contamination.	No health effects. The MCL for chloride is the level above which the taste of water may become objectionable. In addition, to the adverse taste effects, high chloride concentration levels in the water contribute to the deterioration of domestic plumbing and water heaters. Elevated chloride concentrations may also be associated with the presence of sodium in drinking water.
				B	No	3/1/2018	96.1		
Nitrate	mg/l	10	10	A	No	3/1/2018	2.17	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
				B	No	3/1/2018	1.52		
Sulfate	mg/l	N/A	250	A	No	3/2/2017	14.7	Naturally occurring.	High concentrations of sulfate in drinking water have three effects: (1) water containing appreciable amounts of sulfate tends to form hard scales in boilers and heat exchangers; (2) sulfates cause taste effects; and (3) sulfates can cause laxative effects with excessive intake. The laxative effect of sulfates is usually noted in transient users of a water supply because people who are accustomed to high sulfate levels in drinking water have no adverse response. Diarrhea can be induced at sulfate levels greater than 500 mg/l but typically near 750 mg/l.
				B	No	3/1/2017	11		
Sodium	mg/l	N/A	N/A	A	No	3/1/2018	12.9	Naturally occurring; Road salt; Water softeners; Animal waste.	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 moderately restricted sodium diets.
				B	No	Avg. 2018	58.8		
						Range	49.0-66.4		
Radiologicals									
Gross Alpha	pCi/L	0	15	A	No	3/20/2013	ND	Erosion of natural deposits.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
				B	No	3/4/2013	0.37		
Radium 228	pCi/L	0	5	A	No	3/20/2013	ND	Erosion of natural deposits.	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
				B	No	3/4/2013	0.0904		
Disinfection Byproducts			(Samples taken from the system, farthest from the chlorine injection point.)						
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	ug/l	N/A	80	Fisher Ave	No	7/12/2018	12.21	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
				Walden Oaks	No	7/12/2018	4.49		
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)	ug/l	N/A	60	Fisher Ave	No	7/12/2018	2.3	By-product of drinking water disinfection needed to kill harmful organisms.	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer
				Walden Oaks	No	7/12/2018	1.3		

5 Microbiological samples were taken each month in 2018

For terms relating to this contaminant table, please refer to the section of this report titled, ***" TERMS YOU NEED TO KNOW".***