

Annual Drinking Water Quality Report for 2017

Village of Holley Water Department

72 Public Square, Holley, New York 14470

(Public Water Supply ID# NY3600598)

Murray Water District #1

Murray North (PWS ID# NY3612220)

INTRODUCTION

To comply with State regulations, the Village of Holley, annually issues 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. Last year, your tap water met all State drinking water health standards. Holley's water system has not violated a maximum contaminant level and 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 State standards. Both the Village of Holley and the Town of Murray test the water for bacteriological quality at least once per month. If you have any questions about this report or concerning your drinking water, please contact Matt Campbell, Holley Electric and Water Superintendent at (585) 638-6587. We want you to be informed about your drinking water. Customers of Murray Water District # 1 may contact Ed Morgan, Town of Murray Highway and Water Superintendent at (585) 638-8507.

WHERE DOES OUR WATER COME FROM?

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

In 2017 the Village of Holley water system received most of its water from one drilled well, the Glidden well that was drilled in the 1940's. This well produces 400 gallons per minute. In 2017 48,902,000 gallons of water was pumped from Glidden well and 24,121,000 gallons purchased from Monroe County Water Authority, 5,391,550 gallons of water was purchase from the Town of Murray for use in the industrial park and cannot be used in the village except for an emergency.

Water from the Glidden well is disinfected by the addition of a solution of gaseous chlorine as it is pumped from the ground. The chlorine is added to destroy/inactivate any pathogenic microorganisms (bacteria, viruses, parasites) that might be present in the well water. A minimal level of chlorine (residual) must be maintained in the distribution system to assure that the water remains free of pathogens and to control the growth of other non-harmful bacteria and the bio films they create. Chlorine can react with certain organic compounds in the water to create what are known as disinfection by products. The levels of disinfection by products in the distribution system have been tested since 2005, and remain well below what the EPA considers safe. The benefits of chlorine in drinking water far outweigh the risks. The average level of chlorine in the distribution system, and the range, is now reported in the table of contaminants, as are the disinfection by products.

The Village water department has been injecting polyorthophosphates into the well water since August 1999. It is added using small chemical feed pump. Polyorthophosphates is used to coat the inside of the water mains, all water service lines, and piping inside of homes and businesses. This coating action prevents lead and copper from releasing from old soldered joint copper plumbing in older structures and also helps prevent sediment from breaking-off the old water mains and services which created the discolored water we have seen in the past. The product we are using is called "Sea-Quest" and has been approved by the New York State Department of Health. The village will continue to use the polyorthophosphate per Health Department directions. If you have any questions concerning the use of polyorthophosphate, please feel free to call Matt Campbell at (585) 638-6587, or the Orleans County Health Department at (585) 589-3278.

FACTS AND FIGURES

Our water system serves approximately 2200 people through 785 service connections in the Village of Holley, plus 225 people through 46 service connections in Murray Water District # 1 located east of the Village along Route 31. The Village of Holley has a total of 13.5 miles of water mains, ranging in size from 4"-12". Our actions in 2016-2017 to curb water losses from private water lines, locating and repairing water main leaks, along with continuing to replace old water meters is still reducing our water losses. New York Rural water has assisted in helping us to locate water leaks and investigate water loss through out the entire Village Water System. To date we continue to look for these losses and will begin to actively seek the causes for this loss. Our total water loss for 2017 was 5.93%.

The cost of our water to Village residents is presently \$6.10/ 1000 gal. In our continuing efforts to maintain a safe and dependable water supply, it was necessary to make improvements to your water system. The water we purchase from Monroe County Water Authority at \$3.25/ 1000 gallon and the Town of Murray at \$3.50/ 1000 gallon, to supply the industrial park.

SOURCE WATER ASSESSMENT PROGRAM (SWAP)

The NYSDOH has completed a source water assessment for our water system, based on available information. Possible and actual threats to our drinking water sources 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 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 were detected. The source water assessments provide resource managers with additional information for protecting source waters into the future. Water suppliers and 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.

The source water assessment has rated these wells as having a medium-high susceptibility to herbicides/pesticides and inorganic chemicals, and a high susceptibility to microbials, organic chemicals and nitrates. These ratings are due primarily to the close proximity of our wastewater treatment plant to the wells, agricultural activities and three Oil and Gas wells within the assessment area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity. While nitrates (and other inorganic contaminants) were detected in our water, it should be noted that all drinking water, including

bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered to your home meets New York State's drinking water standards for microbial contamination.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, lead and copper, volatile organic compounds, disinfection by products, synthetic organic compounds, and radiological. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Calling the EPA's Safe Drinking Water Hotline (800-426-4791) or Orleans County Health Department can obtain more information about contaminants and potential health effects at (585) 589-2770.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure -ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination

INORGANIC CONTAMINANTS

Chlorine	No	2017	1.1 (1.3 - 0.2)	mg/L	N/A	4	Added to drinking water to destroy pathogenic organisms and protect water supply from bacterial contamination
Lead Ω	No	8/17/17	.0069	ug/L	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper Φ	No	8/17/17	.80	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Nitrate	Yes	2016	(Glidden well)	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Barium	No	2017	1.29 (Glidden well)	mg/L	2	2	Erosion of natural deposits.

DISINFECTION BY PRODUCTS

Trihalomethanes ψ (TTHMs) Village of Holley	No	2017 Annually	26	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Haloacetic Acids ψ (HAAs) Village of Holley	No	2017 Annually	3	ug/L	N/A	60	By-product of drinking water chlorination
Trihalomethanes ψ (TTHMs) Town of Murray # 1	NO	2017 Annually	30	Ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Haloacetic Acids ψ (HAAs) Town of Murray # 1	NO	2017 Annually	35	Ug/L	NA	60	By-product of drinking water chlorination

RADIOACTIVE CONTAMINANTS

Gross beta particle and photon activity	No			pCi/L		50 β	Decay of natural deposits and manmade emissions.
Gross alpha activity	No	8/2016	<0	pCi/L	0	15	Erosion of natural deposits.
Radium 226				pCi/L			Erosion of natural deposits.
Radium 228	No	8/2016	<0	pCi/L		5	Erosion of natural deposits.

Notes:

Ω – The level presented represents the 90th percentile of the 15 sites tested. The 90th percentile is equal to or greater than 90% of the lead values detected at your water system. The amount of lead at most of the sites tested was very low, and none of the samples exceeded the action level.

Φ – The level presented represents the 90th percentile of the 15 sites tested. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, it was calculated by averaging of the 2nd and 3rd highest copper levels. In 2012, the calculated 90th percentile value for copper exceeded the action level. This is not a violation, but the village is required to return to standard monitoring at 20 sites, to be collected twice in 2013.

ψ –TTHM's and HAA's were measured at the stage 2 site (Valley View Circle) which was selected based on testing done in 2007 and 2008. The village is required to collect samples quarterly at this site for at least one year. The village failed to collect disinfection by product samples in November of 2012 - resulting in a monitoring violation. Rather than sample late, it was decided that the village will begin quarterly monitoring again in February 2013.

* – This unusually high level for haloacetic acids was quite unexpected. While it exceeded the MCL for HAAs in that quarter, it is not considered an MCL violation - because the annual average (four quarterly samples) is used to determine compliance. The village did not have 4 quarters worth of data to calculate

the annual average. However, based on previous sampling at this same site, this high level of HAAs is out of the ordinary, and possibly due to lab error. It is very unlikely, that even with this one high reading, that the annual average would have exceeded the MCL.

β – The state considers (50 pCi/l), to be the level of concern for beta particles.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed 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 no known or expected risk to health.

MCLGs allow for a margin of safety.

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

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Milligrams per liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/L): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no MCL violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Please be aware that our water is not fluoridated and you may want to discuss with your dentist the need provide supplementary treatments as necessary to help prevent tooth decay.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels in your home will be higher than at other homes in the community as a result of materials used in your home's plumbing. Stray electrical currents can also cause lead and copper to be released from the old pipes and solder in your home. The Village of Holley 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 unused for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Since a portion of Holley's water is purchased from the Monroe County Water Authority (about 30 % in 2017), a copy of their Annual Water Quality Report is included with our own. The water we purchased from the Town of Murray is about 6.9% in 2017, a copy of their Annual Water Quality Report is included with ours. Our well produced 62.4% of our total water.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2016, we tested the finished water for the presence of coliform bacteria twice per month. As part of a study to determine if our wells are under the direct influence of surface waters, we tested both the Glidden Well for 61 Principle Organic Chemicals & for Asbestos. No detection was found in either well. We were in violation for using the wrong size sample bottles for lead and copper.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, 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 microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

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

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

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. It is not hard to conserve water. Conservation tips include:

- ◆ 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 up 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.

SYSTEM IMPROVEMENTS

From the Village of Holley: We received a grant to upgrade their water system. This will update some of the oldest mains in the village. With the help of Rural Water leak detection, we located some leaks and repaired them to help with our water loss. This year we made improvements to our Glidden well, we started to fill in our old dug wells that are no longer in service, and we are looking to replace a couple out of service fire hydrants. We will continue to use Rural Water this year to help us locate leaks to keep our water loss to a minimum.

From the Town of Murray: With the purchase of new leak detecting equipment and Master Meters, we have been able to locate and repair several leaks in our system.

CLOSING

The Village of Holley and the Town of Murray Water Departments have made progress this past year in locating and repairing water leaks. We continue to provide quality water to every tap. We thank you for allowing us to provide you and your family with quality drinking water and you for allowing us to serve the Village since 1896. Please call our office if you have questions or concerns.