

Annual Drinking Water Quality Report for 2008
Village of Holley Water Department
72 Public Square
Holley, New York 14470
(Public Water Supply ID# NY3600598)

And MURRAY WATER DISTRICTS #1 (PWS ID# NY3612220) and #10 (PWS ID# NY3630045)

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. We are proud to report that our system has not violated a maximum contaminant level or any other water quality statement. 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 **Scott Parker, Holley Electric and Water Consultant at (585) 638-6587**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings held the 2nd Tuesday of every month at 7:00 PM in the Village Clerks Office, 72 Public Square, Holley, N.Y. Customers of Murray Water District # 1 and 10 may also call 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 Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves 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, and 50 people through 35 service connections in Murray Water District #10 located north of the village on Rt 237 and Lynch Road. The Village of Holley water system receives most of it's water from two (2) drilled wells, the Glidden well and the McAllister well. Both of these wells were drilled in the 1940's. The Glidden well produces 400 gallons per minute and the McAllister well produces 95 to 100 gallons per minute. 70,710,00 gallons of water were pumped from the two dug wells. 5,510,000 gallons were purchased from the Monroe County Water Authority for use in the Village and 1,125,000 gallons were purchased from the Town of Murray for use in the Village. Total gallons of water into the Village was 77,345,000. 65,014,000 gallons were sold, leaving **12,331,000 gallons that were lost due to leaks and fire hydrant flushing. **There are leaks that have not been found and we have hired a Leak Detection Agency to go through the entire Village Water System both inside and outside of the Village to find where we are loosing this amount water.

The Village water department has been injecting polyorthophosphates into the well water since August 1999. It is added using small chemical feed pumps and 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 Scott Parker at (585) 638-6587, or the Orleans County Health Department at (585) 589-3252.

The cost of treated water to Village residents is presently \$4.10 per 1000 gallons. In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure.

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 have been 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 3 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. The normal background level for nitrates in Orleans County is 2.5 mg/L. 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, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. 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. 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 Orleans County Health Department at (585) 589-2770.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
INORGANIC CONTAMINANTS							
Iron	No	2004	0.289	mg/L	N/A	0.3	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Manganese	No	2004	0.0152	mg/L	N/A	0.3	Naturally occurring; Indicative of landfill contamination.
Sodium	No	2004	17.6	mg/L	N/A		Naturally occurring; Road salt; Water softeners; Animal waste.
Fluoride	No	2007	<0.2	mg/L	N/A	2.2+	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Chloride	No	2004	41.3	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Sulfate	No	2004	60	mg/l	N/A	250	Naturally occurring.
Lead+	No	2007	3.2 (>1 - 4.3)	ug/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper@	No	2007	0.946 (0.057-1.62) 1.53 (0.05-2.09)	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Nitrate	No	2008	1.6 (Glidden Well) 1.1 (McAllister Well)	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Barium	No	2007	0.11 Glidden well 0.61 McAllister well	mg/L	2	2	Erosion of natural deposits.

DISINFECTION BYPRODUCTS

Total Trihalomethanes (TTHM's) - Chloroform, bromodichloromethane, dibromochloromethane, and bromoform	No	August 2008	56.5 (North Main St.)# 31.3 (Rt 31 East)#	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids (HAA's) – Chloroacetic, Dichloroacetic, Bromoacetic, Trichloroacetic, Bromochloroacetic, & Dibromoacetic Acids	No	2008 August	2.5 (North Main St.)# 7.8 (Rt 31 East)#	ug/l	N/A	60	Same as Trihalomethanes (see above)
RADIATIVE CONTAMINANTS							
Gross beta particle and photon activity from manmade radio nuclides	No	5/2005	0.6 (McAllister Well)	pCi/L	0	50*	Decay of natural deposits and manmade emissions.
Gross alpha activity	No	5/2005	<0.18	pCi/L	0	15	Erosion of natural deposits.
Radium 226	No	5/2005	0.27	pCi/L		5	Erosion of natural deposits.
Radium 228	No	5/2005	<0.7	pCi/L		5	Erosion of natural deposits.

Notes:

* The state considers 50 pCi/l to be the level of concern for beta particles.

@ – The level presented represents the 90th percentile of the 20 sites tested. 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 copper values detected at your water system. In this case, twenty samples were collected at your water system and the 90th percentile value was the 18th highest value (1.01 mg/l). The action level for copper was not exceeded at any of the sites tested.

+ – The level presented represents the 90th percentile of the twenty samples collected. The action level for lead was not exceeded at any of the 20 sites tested.

TTHM's and HAA's were measured at the most remote points (oldest water) in the distribution.

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 your 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.

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 2008, 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 and McAllister Wells for 61 Principle Organic Chemicals & for Asbestos. No detection was found in either well.

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 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

There were no major system improvements during 2008.

CLOSING

The Village of Holley Water Department is continuously working to provide top quality water to every tap. Thank you for allowing us to continue to provide your family with quality drinking water again this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office at (585) 638-6587 if you have questions.

MCWA - Water Quality Table

Detected Substances - 2008 Results Except as Noted

Supply (Source)		Shoremont WTP (L.Ontario)		Purchased Water Hemlock WTP (Hemlock L.)			Meets EPA Standards
Substances	Units	MCLG	MCL	Range of detected values		Likely Source	
Arsenic	ug/L	NA	10	ND	ND	Erosion of natural deposits	Yes
Barium	mg/L	2	2	0.019 - 0.022	0.015 - 0.019	Erosion of natural deposits	Yes
Chloride	mg/L	NA	250	24 - 27	34 - 73	Naturally occurring	Yes
Fluoride	mg/L	NA	2.2	0.3 - 1.4	0.2 - 1.0	Natural and additive - promotes strong teeth	Yes
Manganese	ug/L	NA	300	ND	ND	Naturally occurring	Yes
Nitrate	mg/L	10	10	0.36 - 0.45	0.015 - 0.6	Erosion of natural deposits	Yes
Sodium	mg/L	NA	NS	13	18	Naturally occurring	Yes
Sulfate	mg/L	NA	250	27 - 29	14 - 17	Naturally occurring	Yes
Radionuclides Gross Alpha	pCi/L	NA	15	ND (2003)	ND (2001)	Erosion of natural deposits	Yes
Radionuclides Gross Beta	mg/L	NA	50	ND (2003)	ND (2001)	Decay of natural deposits and man-made emissions	Yes
Organics, Pesticides, Herbicides							
Caffeine	ng/L	NS	NS	4	ND	Pharmaceutical	Yes
Cotinine	ng/L	NS	NS	2.1	1.7	Pharmaceutical	Yes
Triclosan	ng/L	NS	NS	ND	5.8	Personal care products	Yes
Treatment Requirements - 95% of samples each month must be less than 0.3 NTU. Range and lowest monthly percentage are listed. Turbidity is a measure of water clarity and is used to gauge filtration performance.							
Turbidity - Entry Point	NTUs	NA	TT	0.04 - 0.13 100%	0.04 - 0.29 100%	Soil runoff	Yes
Microbial - No more than 5% of monthly samples can be positive. The highest monthly % positive is listed.							
Coliform	% Positive	0	5%	0.4% Aug	0.9% May	Naturally occurring	Yes
Disinfectant and Disinfectant By-products (DBPs) - Average and Range are listed. * Chlorine has a MDRL (Maximum Disinfectant Residual Level) and MDRLG (MDRL Goal) rather than an MCL and MCLG.							
Chlorine Residual - Entry Pt	mg/L	4 *	4 *	1.0 (0.7-1.5)	0.9 (0.7-1.5)	Additive for control of microbes	Yes
Total THMs	ug/L	NA	80	38 (16-68)	38 (25-68)	By-product of water chlorination	Yes
Haloacetic Acids	ug/L	NA	60	8 (2-25)	17 (2-32)	By-product of water chlorination	Yes
Lead and Copper - 90% of samples must be less than the Action Level (AL). 90th Percentile and the number of samples exceeding AL are listed.							
Copper (Customer Tap Samples)	mg/L	1.3	AL=1.3	0.091 None (2006)	0.091 None (2006)	Corrosion of household plumbing	Yes
Lead (Customer Tap Samples)	ug/L	0	AL=15	4.8 None (2006)	4.8 None (2006)	Corrosion of household plumbing	Yes

Key Terms Used In Water Quality Table

MCL = Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as possible.

MCLG = Maximum Contaminant Level Goal, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL = Maximum Residual Level, 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.

MRDLG = Maximum Residual Disinfectant Level Goal, 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.

pCi/L = picoCuries per liter

TT = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

AL = Action Level, the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ND = Not Detected, absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL.

NA = Not applicable

NR = Not Required

NS = No standard

mg/l = milligram (1/1,000 of a gram) per liter = ppm = parts per million

ug/l = microgram (1/1,000,000 of a gram) per liter = ppb = parts per billion

ng/L = nanogram (1/1,000,000,000 of a gram) per liter = ppt = parts per trillion

NTU = Nephelometric Turbidity Unit, a measure of water clarity.

Note: The following contaminants were tested for: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, EDB,1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-dinitrobenzene, 1,3,5, Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,3-Dichloropropene(Cis), 1,3-Dichloropropene(Trans) , 1,4-Dichlorobenzene, 2,2-Dichloropropane, Dioxin, 2,2',4,4'-tetrabromodiphenyl ether (BDE-47), 2,2',4,4',5-pentabromodiphenyl ether (BDE-99), 2,2',4,4',5,5'-hexabromobiphenyl (HBB), 2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153), 2,2',4,4',6-pentabromodiphenyl ether (BDE-100), 2,4,6-trinitrotoluene (TNT), 2,4 D, 2-4-5 TP, 2-Chlorotoluene, 3-Hydroxycarbofuran, 4,4'-DDT, 4-Chlorotoluene, Acetochlor, Acetochlor ethane sulfonic acid (ESA), Acetochlor oxanilic acid (OA), Acetaminophen, Alachlor, Alachlor ethane sulfonic acid(ESA), Alachlor oxanilic acid (OA), Aldicarb Sulfone, Aldicarb Sulfoxide, Aldrin, Aluminum, Antimony, Arsenic, Atrazine, Barium, Benzene, Benzo(a)pyrene, Beryllium, Bis(2-Ethylhexyl)Phthalate, Bromobenzene, Bromochloromethane, Bromomethane, Butachlor, Cadmium, Caffeine, Carbamazepine, Carbaryl, Carbofuran, Carbon Tetrachloride, Chlordane, Chloride, Chlorine, Chlorobenzene , Chloroethane, Chloromethane, Chromium, cis-1,2-Dichloroethene, Coliform, Copper, Cotinine, Cryptosporidium, Cyanide, DCPA, Dalapon, DBCP, Di(2-Ethylhexyl) Adipate, Diazepam, Dibromomethane, Dicamba, Dichlorodifluoromethane, Dichloromethane (Methylene Chloride), Dieldrin, Dimethoate, Dinoseb, Diquat, Endothall, Endrin, Estrone, Estradiol, Ethinyl Estradiol, Ethylbenzene, Fluoride, Fluoxetine, Gemfibrozil, Glyphosate, Gross Alpha, Giardia, Gross Beta, Haloacetic Acids, Heptachlor, Heptachlorepoxyde, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Ibuprofen, Isophorone, Isopropyl Benzene, Lindane, Iopromide, Lead, Manganese, Mercury, Methomyl, Methoxychlor, Metolachlor, Metolachlor ethane sulfonic acid(ESA), Metolachlor oxanilic acid (OA), Metribuzin, Mirex, MTBE, n-Butylbenzene, Nickel, Nitrate, Nitrite, N-nitroso-diethylamine (NDEA), N-nitroso-dimethylamine (NDMA), N-nitroso-di-n-butylamine (NDBA), N-nitroso-di-n-propylamine (NDPA), N-nitroso-methylethylamine (NMEA), N-nitroso-pyrrolidine (NPYR), n-Propylbenzene, Oxamyl , PCB's, Pentachlorophenol, Pichloram, p-Isopropyltoluene, Progesterone, Propachlor , sec-Butylbenzene, Selenium, Silver, Simazine, Sodium, Styrene, Sulfamethoxazole, Sulfate, Terbufos sulfone, tert-Butylbenzene, Testosterone, Tetrachloroethene, Thallium, Toluene, Toxaphene, trans-1,2-Dichloroethene, Trichloroethene, Trichlorofluoromethane, Triclosan, Trihalomethanes, Trimethoprim, Tritium, Turbidity, Vinyl Chloride, Xylene, Zinc

For more information on MCWA's monitoring program call Customer Service at 585-442-7200.