

Annual Drinking Water Quality Report for 2022
Newton Water Works
Village of Homer
31 N. Main St.
Homer, NY 13077
(Public Water Supply ID# 1101757)

INTRODUCTION

To comply with State and Federal regulations, Newton Water Works 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 your 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 never 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.

If you have any questions about this report or concerning your drinking water, please contact Larry Barber, Water Superintendent at 607-749-2511. 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. The meetings are held at the Village of Homer offices located at 31 N. Main St. the first Wednesday of each month at 6:00 p.m.

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 source is groundwater wells: groundwater drawn from two drilled wells pump water from the Scott Aquifer. They pump the water to three storage tanks and the water is gravity fed from these into the village. During 2017 our system did not experience any restrictions of our water source. The water is treated with gas chlorination.

SOURCE WATER ASSESSMENT SUMMARY

The NYS DOH has completed a federally required source water assessment for our drinking water source. This assessment has rated our 2 wells as having a medium-high to high susceptibility to various contaminants. These ratings are due primarily to the highly permeable aquifer from which the water source is derived. These ratings are also due to the close proximity of land uses and activities to the wells, including low intensity residential development and significant fertilizer use/storage. The source water assessments provide resource managers with additional information for protecting source waters into the future.

SOURCE WATER PROTECTION NEEDS

The Village's wells are located in the Cortland-Homer-Preble Aquifer System. This aquifer is classified as a sole source aquifer. This implies that Homer relies completely on this aquifer and has no other source for its water supply. The Town of Homer has an aquifer protection district which includes protection zones for the Village's wells. This district provides for land use restrictions and permitting of many new non-residential developments within the Town. The specifics of the district may be reviewed at the Town of Homer office or the Cortland County Health Department. The Village is currently updating its comprehensive plan, and it is hoped that from this plan the Village would implement similar protection zoning as the Town for the public water supply.

FACTS AND FIGURES:

Our water system serves people through 1251 service connections. The total water produced in 2022 was 181,316,000 gallons. The daily average of water treated and pumped into the distribution system was 496,000 gallons per day. Our highest single day was 645,000 gallons. The amount of water delivered to customers was 68,741,250 gallons. This leaves a total of 112,574,750 which there was no charge for. This was used to flush hydrants, water mains & sewer lines, fight fires, clean streets, recreation (ice rink), and to leakage (with an average main break, 100,000 gallons can be lost in no time). This also includes water usage by all the different departments within the Village (water & sewer dept., streets & parks dept., police dept., fire dept., Village office, and all the parks. In 2022 water customers were charged a flat rate of \$31.50 for up to 5000 gallons, then \$2.85 per 1000 gallons from 5001 to 160,000 and \$2.85 per 1000 gallons from 160,001 and over for water metered.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

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 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 Cortland County Health Department at 607-753-5035.

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, total trihalomethanes, total haloacetic acids, radon, radiological, volatile organic compounds, nitrates, nitrites, lead and copper and synthetic organic compounds which includes perfluorooctanesulfonic acids. 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, may be more than one year old.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
CHLORIDE WELL #2 WELL #3	NO NO	12/16/22 12/16/22	21.5 21.9	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
SODIUM WELL #2 WELL #3	NO NO	3/16/22 3/16/22	10.4 12.0	mg/l	N/A	N/A	Naturally occurring or Road Salt, Water softeners, Animal waste
SULFATE WELL #2 WELL #3	NO NO	1/16/20 1/16/20	8.18 9.95	mg/l	N/A	250	Naturally occurring.
IRON WELL #2 WELL #3	NO NO	1/16/20 1/16/20	97.2 ND	mg/l	N/A	300	Naturally occurring
MANGANESE WELL #2 WELL #3	NO NO	1/16/20 1/16/20	2.2 ND	mg/l	N/A	300	Naturally occurring; Indicative of landfill contamination.
SULFATE WELL #2 WELL #3	NO NO	1/16/20 1/16/20	8.18 9.95	mg/l	N/A	250	Naturally occurring
ZINC WELL #2 WELL #3	NO NO	1/16/20 1/16/20	12.2 ND	ug/l	N/A	5000	Naturally occurring; Mining waste.
NITRATE WELL #2 WELL #3	NO NO	3/16/22 3/16/22	3.08 3.30	mg/l mg/l	10 10	10 10	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
COPPER (see # 1 below)	NO	7/22	106 Range: 3.2-155	ug/l	1,300	AL=1,300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives..
LEAD (see # 2 below)	NO	7/22	2.3 Range: ND-7.5	ug/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Total Trihalomethanes (TTHMs- chloroform, bromodichloromethane, and bromoform)	NO	'22 Ann Average	6.57 Range: (2.8-10.33)	ug/l	NA	80	By-product of drinking water chlorination needed To kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
BARIUM WELL#2 WELL#3	NO NO	1/16/20 1/16/20	27.0 40.4	ug/L	NA	2,000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Gross alpha activity (including radium – 226 but excluding radon and uranium) WELL #2 WELL #3	NO NO	4/22/19 4/22/19	0.762 -0.267	pCi/L ³	0	15	Erosion of natural deposits.
Combined radium – 226 and 228 WELL #2 WELL #3	NO NO	4/22/19 4/22/19	0.484 0.708	pCi/L	0	5	Erosion of natural deposits.
Beta particle and photon activity from manmade radionuclides WELL #2 WELL #3	NO NO	4/22/19 4/22/19	0.268 0.383	pCi/L	N/A	503	Decay of natural deposits and man-made emissions.

Notes:

1 – **Copper**- 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 third highest value. The action level for copper was not exceeded at any of the sites tested.

2 – **Lead**- The level presented represents the 90th percentile of the 20 samples collected. The action level for lead not exceeded at any of the sites tested.

3 – 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.

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.

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)

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

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants were detected; however, this was detected below the level allowed by the State.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2022, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

INFORMANTION ON 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 under homes.

In 2004 and 2006, we collected four samples (two from Well #2 and two from Well #3) that were analyzed for radon. The average of the four results was 484.1 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).

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.

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:

All new water meters are installed. Two new water hydrants were installed. Several water leaks were fixed after NY state paving. We are in process of planning replacement of some ageing water mains in 2023

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community and our way of life. Please call our office at 607-749-2511 if you have questions.

Respectfully submitted,

Lawrence Barber
Water & Sewer Superintendent