Annual Drinking Water Quality Report for 2023
Carmel Water District #3
Town of Carmel, New York
(Public Water Supply ID# 3903642)

INTRODUCTION

To comply with State regulations, Carmel Water District #3, 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. Last year, your tap water failed to meet 2 parameters for State drinking water health standards. 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 the operators of your water system, Inframark, LLC at 845-228-0460 or the Town Engineer at 845-628-2087.

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.

Our water supply presently consists of five (5) wells. Wells #1, #2 & #3 are located at the intersection of Lake Shore Drive and Spring Street on Birch Road. Well #2 is presently offline. Well #1 produces 17 gallons per minute, and Well #3 produces 35 gallons per minute. The well water from Wells #1 & #3 is pumped through a sand separator which removes any grit and volatile organic contaminants. The water is then chlorinated for disinfection and then pumped into a clear well where it is then pumped into the distribution system. Well #4 is currently offline. Well #5 produces 62 gpm and is located just north of the intersection of Orchard Road & North Road. This water system also has a 227,000-gallon atmospheric storage tank, which provides the consumer with water. During 2023, our system did not experience any restriction of our water source.

FACTS AND FIGURES

Our water system serves approximately 1,550 people through 470 service connections. The total water produced in 2023 was 35,022,977 gallons. The daily average was 96,217 gallons.

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, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological 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, 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 Putnam County Health Department at (845) 808-1390.

Water Quality Data for Carmel Water #3							
Contaminant	**Violation Yes/No**	**Date of Sample**	**Level Detected**	**Unit Measure-ment**	**MCLG**	**MCL**	**Likely Source of Contamination**
Nitrate	No	Well 1&3 1-04-23 Well 5 04-05-23	0.19 0.17	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Copper	No	1-05-22	0.016	mg/L	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	No	1-05-22	0.002	ug/L	15	15	Corrosion of household plumbing systems; erosion of natural deposits
Barium	No	Well 1&3 1-04-23 Well 5 01-04-23	0.340 0.166	mg/L	2	2	Discharge from drilling wastes and metal refineries. Erosion of natural deposits
Chloride[3]	Yes[1]	Well 1&3 1-04-23 1-11-23 5-03-23 5-24-23 8-01-23 8-16-23 11-01-23 Well 5 01-04-23	271 273 253 254 270 246 218 50.5	mg/L	250	N	Naturally occurring or indicative of road salt contamination
Total Cyanide	No	Well 1&3 1-17-23 Well 5 1-17-23	<0.005 <0.005	mg/L	0.2	0.2	Discharge from Steel/Metal
Iron	No	Well 1&3 1-04-23 Well 5 01-04-23	<0.010 <0.010	ug/L	NA	300[A]	Naturally occurring
Manganese	No	Well 1&3 1-04-23 Well 5 01-04-23	<0.001[A] <0.001[A]	ug/L	NA	300[A]	Naturally occurring; indicative of landfill contamination
Sodium	No	Well 1&3 8-23-23 Well 5 01-04-23	103 16.2	mg/L	NA	See Health Effects	Naturally occurring; Road salt; water softeners; animal waste
Asbestos[2]	No	09-30-20	0.218	MFL	NA	7.0MFL	Cement water pipes and roofing material
Sulfate	No	Well 1&3 1-04-23 Well 5 01-04-23	23.4 18.3	mg/L	NA	250	Naturally occurring

Disinfection Byproducts

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit of Measurement	MCLG	MCL	Sources in Drinking Water
Total Trihalo-methanes (TTHMs – chloroform, bromodichloromethane, di-bromochloro methane, bromoform)	No	1-03-23	0.0132	mg/L	NA	0.08	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are found when source water contains large amounts of organic matter
Haloacetic Acids (mono-,di- and tricloroacetic acid, mono-and di-bromoacetic acid	No	1-03-23	0.0046	mg/L	NA	0.06	By-product of drinking water chlorination needed to kill harmful organisms
Radiologicals							
Gross Alpha	No	Well 1&3 01-04-23 Well 5 01-04-23	9.16 ± 3.5 ND ± 1.25	pci/L	NA	15	Erosion of natural deposits
Rad-226	No	Well 1&3 01-04-23 Well 5 01-04-23	ND ± 0.11 ND ± 0.06	pci/L	NA	5	Erosion of natural deposits
Rad-228	No	Well 1&3 01-04-23 Well 5 01-04-23	ND ± 0.38 ND ± 0.43	pci/L	NA	5	Erosion of natural deposits
Uranium	No	Well 1&3 02-01-23 Well 5 02-01-23	0.0034 0.0014	mg/L	NA	3	Erosion of natural deposits
PFOS	Yes[1]	**Well 1&3 Entry Pt** 1-11-23 1-25-23 5-10-23 5-24-23 8-09-23 9-06-23 11-15-23 12-13-23	 20.3 27.0 17.9 21.9 18.4 12.4 22.3 19.3	ng/L	NA	10	Released into the environment from widespread use of commercial and industrial applications

PFOS	Yes[1]	**Well 5 Entry Pt** 1-11-23 5-10-23 5-24-23 8-09-23 9-06-23 11-15-23 12-13-23	 7.15 6.55 6.25 17.1 18.7 15.1 12.7	ng/L	NA	10	Released into the environment from widespread use of commercial and industrial applications
PFOA	Yes[1]	**Well 1&3 Entry Pt** 1-11-23 1-25-23 5-10-23 5-24-23 8-09-23 9-06-23 11-15-23 12-13-23	 15.6 20.4 14.5 21.1 17.7 14.0 19.8 16.8	ng/L	NA	10	Released into the environment from widespread use of commercial and industrial applications
PFOA	Yes[1]	**Well 5 Entry Pt** 1-11-23 5-10-23 5-24-23 8-09-23 9-06-23 11-15-23 12-13-23	 4.39 5.08 5.39 10.6 11.0 9.78 8.80	ng/L	NA	10	Released into the environment from widespread use of commercial and industrial applications
1-4, dioxane	No	**Well 1&3 Entry Pt** 1-11-23 1-25-23 5-10-23 5-24-23 8-09-23 9-06-23 11-15-23 12-13-23	 ND ND ND ND ND ND ND ND	ug/L	NA	1	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.

1 – Confirmation sampling was performed within 30 days after samples were positive.

2 – Asbestos fibers that may be found in drinking water are not considered to be hazardous to human health.

3 - See Health Effects section for further detail on Chloride

A – If iron and manganese are present, the total concentration of both should not exceed 500 ug/l.

Health Effects:

Sodium – 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.

Iron – Iron has no health effects. At 1,000 ug/l a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multivitamins may contain 3,000 or 4,000 micrograms of iron per capsule.

Chloride – 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.

Gross Alpha – Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Perfluorooctanoic acid (PFOA) - PFOA caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOA in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOA as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOA in animals.

Perfluorooctane sulfonic acid (PFOS) - PFOS caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOS in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOS as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOS in animals.

1,4-Dioxane - Laboratory studies show that 1,4-dioxane caused liver cancer in animals exposed at high levels throughout their lifetime. Whether 1,4-dioxane causes cancer in humans is unknown. The United States Environmental Protection Agency considers 1,4-dioxane as likely to be carcinogenic to humans based upon studies of animals exposed to high levels of this chemical over their entire lifetimes

Definitions:

Variance & Exemption (V&E) **–** state or EPA permission not to meet an MCL or treatment technique under certain conditions.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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.
Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.
Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
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.
Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Mathematical Converstions

1 mg/l = 1 ppm
1 ug/l = 1 ppb
1 ppm / 1000 = 1 ppb
1 ppb x 1000 = 1 ppm

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system did have violations of PFOS and PFOA. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2023, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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 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 firefighting 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 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.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes. If it moved, you have a leak.

BACKFLOW PREVENTION

What is "Backflow"?

Backflow occurs when water is pushed (called backpressure) or pulled (called back siphon). Backpressure is caused when the force of water at a property overcomes city water pressure. Generally, backpressure is attributed to pumps, but can also be caused by tall buildings (due to the heights and weight of the given column of water). Back siphon occurs when a "reverse siphon" is caused due to pressure loss of fluctuation. Generally, water main breaks or large water uses like operating fire hydrants during a fire can cause back siphon to occur. The use of backflow prevention assemblies can help prevent backpressure and/or back siphon.

Backflow Prevention

- Each water spigot (hose bib) should have a hose bib vacuum breaker installed.
- Never submerge the hose end in any liquid.
- If using a spray nozzle, release the pressure in the hose AFTER the hose bib is shut. Sun or heat can cause the hose pressure to become greater than the drinking water system pressure.
- Disconnect hoses from faucets or bibs after use.
- Store the hose in a manner that would prevent the end from dropping into a liquid or on the gound.
- Never attach hoses or other devices to tub or sink faucets that could be submerged in a liquid.

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. Please call our office if you have questions.