

IRRIGATION REGULATIONS

To protect and conserve the public drinking water supply the Board of Water Commissioners (BOWC) have instituted the following policies:

- Effective 8/30/2021, the BOWC shall no longer allow any new automatic inground irrigation systems to be connected to the public water supply system.
- Existing customers with irrigation systems are encouraged to install private onsite irrigation wells.
- Monitoring and maintenance of irrigation system including smart sensors, sprinkler heads and water lines to mitigate the loss of water. Systems are subject to inspection by the Water Department.
- The BOWC reserves the right to institute and enforce reductions, restrictions or bans on all outside use in accordance with the District Bylaws and associated State Laws.
- The full policy can be found on the district website www.cotuitfiredistrict.org/waterdepartment/. Violations of this policy are subject to penalties and fines.

SYSTEM MAINTENANCE AND IMPROVEMENTS

- ✦ Annual leak detection program was completed.
- ✦ Both storage tanks (interior) were cleaned and inspected. All well pumps were inspected.
- ✦ Performed gate exercise program to ensure proper functionality.
- ✦ Performed annual water main flushing to remove naturally occurring debris and settlement.
- ✦ Installed Variable Frequency Drives (VFD's) at 4 pump stations to reduce the electrical demand on pump start-up.

CROSS CONNECTION

Cross connection is the interconnection of a potable (drinkable) water line with non-potable piece of equipment or piping. Examples of non-potable equipment may include fire protections systems, lawn irrigation systems, air conditioning or cooling systems as well as high pressure boilers.

Through the implementation of our cross connection program, commercial businesses have been surveyed and proper backflow devices have been installed. These devices are tested as regulated.

Check valves have been installed as part of meter installations in residential homes since the late 70's. The department highly recommends using a licensed plumber, as they are knowledgeable with check valve operation.

FREE HOSE BIBB VACUUM BREAKERS
ARE AVAILABLE AT OUR OFFICE.

Source Water Assessment and Protection (SWAP)

What is a SWAP?

The Source Water Assessment Protection (SWAP) program assesses the susceptibility of public water supplies to potential contamination by microbiological pathogens and chemicals.

What Is My System's Ranking?

A susceptibility ranking of high, was assigned to this system using the information collected during the assessment by the DEP. A source's susceptibility to contamination does not imply poor water quality.

Actual water quality is best reflected by the results of regular water tests. To learn more about your water quality, refer to this report.

Where Can I See The SWAP Report?

The complete SWAP report is available at the Water Department Office and Board of Health. For more information, call Superintendent Chris Wiseman at 508-428-2687.

Residents Can Help Protect Sources By:

- practicing good septic system maintenance
- taking hazardous household chemicals to hazardous materials collection days at the Barnstable Transfer Station.
- limiting pesticide and fertilizer use, etc.

The Cotuit Water Department is collaborating with a consulting firm to pinpoint potential vulnerabilities and enhance source water protection measures.

MEETING SCHEDULE

The Board of Water Commissioners meets on the third Wednesday of each month at 5:45 P.M. at Freedom Hall or via Zoom. Meetings are subject to change and are posted at the Town Hall, Freedom Hall and the District website (www.cotuitfiredistrict.org).

BOARD OF WATER COMMISSIONERS

Scott Horsley, Chairperson
Mark Robinson, Commissioner
David Churbuck, Commissioner

COTUIT WATER DEPARTMENT

2023 DRINKING WATER QUALITY REPORT



*Photo: Town Dock circa 1930
Provided by: David Churbuck, Commissioner*

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**SUPERINTENDENT
Chris Wiseman**

Public Water
Supplier ID # 4020003



This report contains very important information about your drinking water. Please translate it, or speak with someone who understands it.

WHERE DOES COTUIT'S WATER COME FROM?

The Cotuit Water Department draws water from five groundwater wells located on 244 acres of District-owned land. Three stations are on Sampsons Mill Road, one is on Main Street and one is on Rte. 28.

2023 COTUIT WATER FACTS

Population Supplied: Winter: 3,292
Summer: 4,938

Accounts: 2,361
Total Pumpage: 167,470,000 Gallons
Largest Day: 08/02/2023 1,338,000 Gallons
Interconnections: 4 (No water was used from these sources in 2023)
3 with C-O-MM Water; 1 with Mashpee Water
Miles of water mains: 53
Storage Tanks: 2 (800,000 gallon total capacity)
No. of Hydrants: 444

The pH of water on Cape Cod is acidic and ranges from 4.7 to 6.5 (pH is the measure of acidity or alkalinity of a liquid). On the pH scale, the number 7 is neutral, less than 7 is acidic and more than 7 is alkaline. Due to the lower pH in our water, we add a harmless substance (hydrated lime) to the water to reduce corrosion in the distribution system and in your home.

FLUSHING PROGRAM

The water mains are flushed every Spring as part of a preventive maintenance program to ensure that the water quality is not being compromised. Flushing notices are published in the Barnstable Patriot and posted on the District website. Daily flushing locations are also posted on the District website and on Facebook.

Prior to the designated flushing period, collect water for drinking, cooking or other consumption purposes. During the designated flushing period you may experience water discoloration or sediment. Using water during flushing may result in staining or sediment in laundry, ice machines, dishwasher, bath tubs or hot water tanks.

**FLUSH YOUR SYSTEM WITH COLD WATER
BEFORE RETURNING TO NORMAL USE.**

The Cotuit water supply met all relevant state health requirements in 2023. The water quality information shown below is from the most recent rounds of testing done as required by DEP. Only the detected contaminants are shown.

2023 Monitoring Results								
Regulated Contaminants	Unit of Measure	Date Collected	MCL MRDL	MCLG MRDLG	Highest Detection	Range of Detection	Violation	Possible Sources of Contamination
Microbiological Contaminants								
Total Coliform	Positive or Negative	2023	TT	0	0	NA	NO	Naturally present in the environment
E. coli	Positive or Negative	2023	-	0	0	NA	NO	Human and Animal fecal waste
Inorganic Contaminants								
Nitrate	ppm	2023	10	10	2.6	1.5-2.6	NO	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
Nitrite	ppm	2023	1	1	0	0	NO	
Barium	ppm	2023	2	2	0.071	.018-.071	NO	Erosion of natural deposits
Disinfection By-Products								
Total Haloacetic Acids (HAA5)	ppb	2023	60	NA	1.11	0-1.11	NO	By product of drinking water disinfection
Total Trihalomethane (TTHM)	ppb	2023	80	NA	6.8	4.6-6.8	NO	By product of drinking water disinfection
Radioactive Contaminants								
Gross Alpha Activity	pCi/L	2021	15	0	0	0	NO	Erosion of natural deposits
Combined Radium	pCi/L	2021	5	0	1.1	.22-1.1	NO	Decay of natural and manmade deposits
Lead & Copper			Action Level		90th Percentile	# of sites above AL		
Lead (20 sample sites)	ppb	2022	15	15	0.0014	0	NO	Corrosion of household plumbing
Copper (20 sample sites)	ppm	2022	1.3	1.3	0.25	0	NO	Corrosion of household plumbing
PFAS								
			MCL	Highest Detection		Range of Detection	Violation	
Perfluorooctane sulfonic Acid (PFOS6)	ppt	2023	20	2.42		2.14-2.42	NO	Discharge and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foam.
Non-Regulated Substances								
	Unit of Measure	Date Collected	ORSG	SMCL	Average Detection	Range of Detection	Violation	
Chloroform	ppb	2023	70	0	0.17	0-.85	NO	Naturally occurring sources
Manganese	ppb	2023	300	50	74.6	29-140	NO	Errision of natural deposits
Sodium	ppm	2023	20	0	21.24	15-30	NO	Naturally occurring salt deposits; storm water runoff
Sulfate	ppm	2023	0	250	8.48	7.8-10	NO	Naturally occurring sources
	Unit of Measure	Date Collected	ORSG	Highest Detection		Range of Detection	Violation	Possible Sources of Contamination
Perflourobrance sulfonic Acid (PFBS)	ppt	2023	NA	2.8		2.80-2.95	NO	Man-made chemical; used in products to make them stain, grease, heat and water resistant.
Perfluorohexanoic acid (PFHxA)	ppt	2023	NA	1.3		1.30-1.60	NO	Man-made chemical; used in products to make them stain, grease, heat and water resistant.

Terms & Abbreviations

ppm - Parts per million - or milligrams per liter (mg/l)

ppb - Parts per billion - or micrograms per liter (ug/l)

ppt - Parts per trillion - or nanograms per liter (ng/l).

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

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 feasible using the best available treatment technology. MCL's are set at very stringent levels.

MCLG - Maximum Contaminant Level Goal – 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

MRDL - Maximum Residual Disinfectant 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 know or expected risk to health. MRFLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Unregulated Contaminants - Unregulated contaminants are substances without MCLs for which EPA requires monitoring. For some of these substances, the Massachusetts Office of Research and Standards (ORS) has developed state guidelines or secondary MCLs.

(ORSG) Massachusetts Office of Research and Standard Guidelines - This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure, with a margin of safety. If exceeded it serves as an indicator of the potential need for further action.

SMCL - Secondary maximum contaminant level. These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

pCi/L - Picocuries per liter - Measure of radioactivity of water.

90th percentile - out of every 10 homes tested, 9 were at or below this level.

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

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Chloroform - is a trihalomethane (THM). The maximum THM level allowed in drinking water is 100 ppb. Levels of chloroform below 60 ppb are generally considered not to be a health risk. Testing is done annually.

Sodium - sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels in drinking water where exposures are being carefully controlled.

MassDEP has reduced the monitoring requirement for certain contaminants to less often than once per year because the source is not at risk of contamination. The last sample collected for these contaminants were taken on the date noted in the table and were found to meet all applicable EPA and MassDEP standards.

Lead in Drinking Water

“If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Cotuit Water 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 for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using 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 or at <http://www.epa.gov/safewater/lead>.”

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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from stormwater runoff, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.

- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, or septic systems.

- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the DEP & EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and the Mass Dept. of Health regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information can be obtained by calling the EPA's Safe Drinking Water Hotline 1-800-426-4791

SPECIAL HEALTH INFORMATION

Based on studies of laboratory animals, people exposed to elevated levels of PFBS for several years could experience effects on the liver, thyroid, blood and kidneys Some people may be more vulnerable to contaminants 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 at particular risk from infections. These people should seek advice from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.