

DID YOU KNOW?

- The average American family of four uses 400 gallons of water per day.
- A running toilet can waste about 200 gallons every day - check for leaks!
- A standard shower head uses 2.5 gallons per minute. Utilize low flow shower heads and fixtures and save over 2,900 gallons and \$70 in energy cost per year.
- Bathroom faucets generally use 2 gallons per minute. Turn off the tap while brushing your teeth or shaving.

WATER CONSERVATION TIPS

- Run dishwashers and washing machines with full loads only.
- Observe all voluntary & mandatory water conservation restrictions.
- Don't run hoses while washing cars.
- Timing is everything - know when and how to water your lawn and garden.
- Monitor and maintain your irrigation system - check for leaks.

FREE INDOOR & OUTDOOR CONSERVATION KITS ARE AVAILABLE AT OUR OFFICE

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

CRUSH IT - DON'T FLUSH IT

Medications that are flushed down the toilet can and do find their way into our aquifer every day.

Here are four safe steps toward proper disposal:

- 1- Pour medication into sealable bag. If medication is a solid, crush it or add water to dissolve it.
- 2- Add cat litter, sawdust or coffee grounds to the plastic bag.
- 3- Seal the plastic bag and put it in the trash.
- 4- Remove and destroy all identifying personal information from all medication containers before recycling them or throwing them in the trash.

MEETING SCHEDULE

The Board of Water Commissioners meets on the third Thursday of each month at 5:00 P.M. at Freedom Hall. Meetings are subject to change and are posted at the Post Office, Town Hall, our office and the District website (www.cotuitfiredistrict.org).

BOARD OF WATER COMMISSIONERS

Frederick Kiely, Chairman
Theodore Barnicle
Donald Campbell

COTUIT WATER DEPARTMENT

2014 DRINKING WATER QUALITY REPORT



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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.

2014 COTUIT WATER FACTS

Population Supplied: Winter: 3,616
Summer: 5,625

Accounts: 2256

Total Pumpage: 225,261,000 Gallons

Largest Day: 07/25/14 1,604,000 Gallons

Interconnections: 4 (No water was used from these sources in 2014)

3 with C-O-MM Water; 1 with Mashpee Water

Miles of water mains: 52

Storage Tanks: 3 (900,000 gallon total capacity)

No. of Hydrants: 433

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.

SYSTEM MAINTENANCE AND IMPROVEMENTS

- ✦ The annual leak detection program was completed.
- ✦ Approximately 76 meters were replaced.
- ✦ All storage tanks and well pumps were inspected.
- ✦ Replaced doors at station #3 and #4 with energy efficient insulated doors.
- ✦ Installed 1,100 ft. of ductile iron pipe in Cotuit Meadows subdivision.

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 Cape Cod Times and Barnstable Patriot and posted on the District website at the end of March. Daily flushing locations are also posted on the District website in April and May.

In 2014, over 500 water quality tests were conducted for drinking water compounds. These tests confirmed that your drinking water far exceeded all Federal and State regulations.

2014 Water Quality Information Table

Regulated	MCL MRDL	MCLG MRDLG	Highest Level	Range of Detection	Violation	Major Source of Contamination
Nitrate (ppm)	10	10	3.0	1.4 - 3.0	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Gross Alpha activity (pCi/L) (data from 2012)	15	0	2.6	.13 - 2.6	NO	Erosion of natural deposits
Combined Radium (pCi/L) (data from 2012)	5	0	1.1	.8 - 1.1	NO	Erosion of natural deposits
Barium (ppm) (data from 2013)	2	2	.055	.022 - .055	NO	Erosion of natural deposits
Total Haloacetic Acids (HAA5) (ppb)	60	n/a	1.8	.9 - 1.8	NO	By product of drinking water disinfection
Total Trihalomethane (TTHM) (ppb)	80	n/a	12.0	3.9 - 12.0	NO	By product of drinking water disinfection
Unregulated	ORSG	SMCL	Average	Range of Detection		
Sulfate (ppm) (data from 2013)	-	250	11.02	9.1 - 12.0	NO	Naturally occurring
Sodium (ppm) (data from 2013)	20	-	19	12 - 30	NO	Naturally occurring salt deposits; storm water runoff
Manganese (ppm)	.3	.05	.06	.016 - .11	NO	Erosion of natural deposits
Chloroform (ppb)	60	-	.70	.51 - 1.2	NO	Naturally occurring
Lead & Copper	Action Level (AL)	MCLG	90th Percentile	Sample sites above the AL		
Lead (ppb) (data from 2013)	15	15	0	0 out of 20	NO	Corrosion of household plumbing
Copper (ppm) (data from 2013)	1.3	1.3	.21	0 out of 20	NO	Corrosion of household plumbing
Microbiological Contaminants	MCL	Highest # of positive Samples				
Total Coliform*	>5% of samples	1			NO	Naturally present in environment
E. coli**	0	1			YES	Human and animal fecal waste

Terms & Abbreviations

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

ppb - Parts per billion - or micrograms per liter (ug/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 known or expected risk to health. MRDLGs 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.

* **Coliforms** are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. On August 4, 2014 one RAW water sample tested positive for E. coli. The water delivered through the distribution system is disinfected with chlorine to kill viruses and bacteria, including E. coli. Samples collected in the distribution system did not detect any fecal contaminants and all subsequent samples collected, both raw and treated, were also clear of contaminants.

****E. coli** - is bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely-compromised immune systems.

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.

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

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.