Annual Drinking Water Quality Report
For
Colonial Water Company
2020

Plymouth, Massachusetts

MASSDEP PWSID # 4239045

This Consumer Confidence Report is a snapshot of the quality of drinking water we provided to you in 2020. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with information because informed customers are our best customers.

I. PUBLIC WATER SYSTEM INFORMATION

Address: **133 Raymond Road Plymouth, MA 02360** Mailing Address: **37 Northwest Drive, Plainville, CT 06062**

Contact Person: **Josh DeSantis**

Telephone #: **(508) 785-0052**

Colonial Water Company (CWC) – Plymouth Division (PD) is proud to provide you with our water quality report for 2020. The Company is committed to delivering to our customers high quality drinking water that meets or surpasses state and federal standards for quality and safety. This report includes the State and Federally mandated format for language and information.

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator who oversees the routine operations of our system.

Water System Improvements
The Company continues to improve and upgrade equipment as needed to ensure the highest level of quality drinking water and customer service.

2. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?
Your water is provided by the following sources listed below:

Source Name	MassDEP Source ID#	Source Type	Location of Source
Well #1	4239045-01G	Groundwater	Between Kim and Lynn Circle
Well #2	4239045-02G	Groundwater	Lunn's Way

CWC (PD) draws its water supply from two ground water sources. Well 1 (Source ID # 4239045-01G), is 126 feet in depth and has the capacity to pump 345 gallons of water per minute or 496,800 gallons of water per day. The pump provides ground water into a 2,000,000 gallon concrete storage reservoir. High lift variable speed pumps withdraw and maintain system demand from the reservoir. Well 1 is located at the eastern side of the development between Kim Circle and Lynn Circle. Well 2 (Source ID # 4239045-02G), is 141 feet in depth and has the capacity to pump 735 gallons per minute or 1,058,400 gallons per day. Well 2 has been designed

utilizing hydropneumatic technology to support system wide demand. Well 2 is located at the northern end of the development, off of Lunn's Way.

Is My Water Treated?

Many drinking water sources in New England are naturally corrosive (i.e. they have a pH of less than 7.0). Therefore, the water they supply has a tendency to corrode and dissolve metal from the piping it flows through. This not only damages pipes but can also add harmful metals, such as lead and copper, to the water. For this reason it is beneficial to add chemicals that make the water neutral or slightly alkaline. This is done by adding one, or a combination of several approved chemicals. CWC adds Potassium Hydroxide to its water. This adjusts the water to a neutral pH. Testing throughout the water system has shown that this treatment has been effective in reducing lead and copper concentrations.

All chemicals used for pH adjustment are approved for water treatment by one or more of the following organizations: National Sanitation Foundation (now known as NSF International), accredited by the American National Standards Institute (ANSI). Chemicals also have to meet performance standards established by the American Water Works Association.

The water quality of our system is constantly monitored by us and MassDEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

How Are These Sources Protected?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies.

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.

Where Can I See The SWAP Report? The complete SWAP report is available at The Colonial Water Company – Plymouth Division office or at www.mass.gov/dep/water/drinking/swapreps.htm. For more information, call Colonial Water Company – Plymouth Division at (508) 759-6877.

Residents can help protect sources by:

- Practicing good septic system maintenance
- Supporting water supply protection initiatives at the next town meeting
- Taking hazardous household chemicals to hazardous materials collection days
- Limiting pesticide and fertilizer use, etc.

Protect your drinking water from Cross Connections:

A cross connection occurs whenever a potable drinking water line is connected to a piece of equipment or piping containing non-potable water. An unprotected cross connection could contaminate the water in your home and also affect the water at the street in the event of backpressure or back-siphonage. An outside water tap or garden hose tends to be the most common type of cross connection in the home. The garden hose becomes a hazard when connected to a chemical sprayer used for weed control and fertilizer applications. You can protect against this by installing vacuum breakers on all your outside faucets. Vacuum breakers can be purchased at your local hardware store and are inexpensive and easy to install. Other potential cross connections can occur on lawn irrigation systems, irrigation wells and fire protection systems. **Irrigation wells should never be connected to the household plumbing, as that is a direct cross connection in violation of the plumbing code and drinking water regulations!** For more information on cross connections, please contact the Colonial Water Company – Plymouth Division at 508-759-6877, or go to www. colonialwatercompany.com/plymouth-division.com.

3. SUBSTANCES FOUND IN TAP WATER

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 in some cases, radioactive material, and can pick up 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 urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticides and herbicides -which may come from a variety of sources such as agriculture, urban stormwater 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, and septic systems.

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

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

All drinking water, including bottled water, may reasonably be 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).

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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. Plymouth Water Company 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.

4. IMPORTANT DEFINITIONS

The following table lists drinking water contaminants that we detected during the 2020 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The

data presented in this table is from testing done between January 1st and December 31, 2020. The state requires us to monitor certain contaminants less than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year.

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 using the best available treatment technology.

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 which, if exceeded, triggers treatment or other requirements that a water system must follow.

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level.

Unregulated Contaminants
Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

ppm = parts per million, or milligrams per liter (mg/l)
ppb = parts per billion, or micrograms per liter (ug/l)
pCi/l = picocuries per liter (a measure of radioactivity)
NTU = Nephelometric Turbidity Units
ND = Not Detected
N/A = Not Applicable
mrem/year = millirems per year (a measure of radiation absorbed by the body)

Secondary Maximum Contaminant Level (SMCL) – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

Massachusetts Office of Research and Standards Guideline (ORSG) – 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. If exceeded, it serves as an indicator of the potential need for further action.

5. WATER QUALITY TESTING RESULTS

What Does This Data Represent?

The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table(s).

MassDEP has reduced the monitoring requirements for inorganic contaminants and synthetic organic contaminants because the source is not at risk of contamination. The last sample collected for these contaminants was taken in 2019 and was found to meet all applicable US EPA and MassDEP standards.

	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead (ppb)	2019	3	15	15	**10**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2019	.15	1.3	1.3	**10**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

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. Colonial Water Company – Plymouth Division 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.

	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	0	1	0	N	Naturally present in the environment
Fecal Coliform or *E.coli*	0	*	0	N	Human and animal fecal waste

* Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify any problems that were found during these assessments.

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic Contaminants							
Antimony (ppb) W 1 W 2	 2020 2020	 ND ND	 ND-10	 6	 6	 **N**	Discharge from fire retardants; ceramics; electronics; solder

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Arsenic (ppb) W 1 W 2	 2020 2020	 ND ND	ND-2	10	-----	**N**	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm) W 1 W 2	 2020 2020	 ND ND	0.0002-0.003	2	2	**N**	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cadmium (ppb) W 1 W 2	 2020 2020	 ND ND	-	5	5	**N**	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Fluoride (ppm) W 1 W 2	 2020 2020	 ND ND	ND-0.1	4	4	**N**	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm) W 1 W 2	 2020 2020	 0.62 1.69	-	10	10	**N**	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite (ppm) W 1 W 2	 2020 2018	 ND ND	-	1	1	**N**	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate W 1 W 2	 2020 2020	 0.22-0.25 0.18-0.22	-	2	N/A	**N**	Rocket propellants, fireworks, munitions, flares, blasting agents

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Selenium (ppb) W 1 W 2	 2020 2020	 ND-2 ND-2	-	50	50	**N**	Discharge from metal refineries; erosion of natural deposits; discharge from mines
Radioactive Contaminants							
Gross Alpha (pCi/l) (minus uranium)	2015	0.94-1.66	-	5	0	**N**	Erosion of natural deposits

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

Unregulated and Secondary Contaminants	Result or Range Detected	SMCL	ORSG	Possible Source
2020 Sodium (ppm) W 1 W 2	 25.7 13.3	 mg/L mg/L	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process
2019 Sulfate (ppm) W 1 W2	 5.27 4.79	250	----	Natural sources
Chloroform (ppb)	0.6-1.5	---	---	By-product of drinking water chlorination
Iron (ppm)	ND	0.3	---	Naturally occurring, corrosion of cast iron pipes
2020 Manganese* (ppm) W 1 W 2	RD ND 0.026	.05		Erosion of natural deposits
Aluminum (ppm)	ND	.2	---	Byproduct of treatment process
2019 Chloride (ppm) W 1 W 2	 41.0 21.3	 250	---	Runoff from road de-icing, use of inorganic fertilizers, landfill leachates, septic tank effluents, animal feeds, industrial effluents, irrigation drainage, and seawater intrusion in coastal areas
2019 Color (C.U.) W 1	 ND	15	---	Naturally occurring organic material

Unregulated and Secondary Contaminants	Result or Range Detected	SMCL	ORSG	Possible Source
W 2	ND			
Odor (T.O.N.)	ND	3 TON	---	Erosion of natural deposits; Leaching from wood preservatives
pH	7.0-7.8	6.5-8.5	---	-----
2019 Silver (ppb)	ND	ND	---	Erosion of natural deposits
2019 Total Dissolved Solids (mg/L)	RD 87-130	500		Erosion of natural deposits
2019 Zinc (ppm) W 1 W 2	 ND 0.008	 5	 ---	 Erosion of natural deposits, leaching from plumbing materials

* US EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

6. COMPLIANCE WITH DRINKING WATER REGS

Does My Drinking Water Meet Current Health Standards?

We are committed to providing you with the best water quality available. We are proud to report that last year your drinking water met all applicable health standards regulated by the state and federal government. If you have any further questions about your water, please do not hesitate to call us at (508) 759-6877.

VOC's (Volatile Organic Compounds) (60 chemicals tested for). Both wells tested in 2020, both ND on all 60 each.

SOC's (Synthetic Organic Compounds) (45 Potential contaminants tested for). Both wells tested in 2020, both ND on all 45 each.

We are currently operating under a Stage 2 Water Ban. The ban limits nonessential water use to two days per week, Sunday and Thursday after sunset and before sunrise. Further conservation efforts are likely. Appropriate notice to follow.