# Wellfleet Municipal Water System

## 2019

**PWS ID: #4318094**

# REPORT ON WATER QUALITY

This report is a snapshot of the quality of the drinking water that we provided last year. The statistics in this report are based on testing done throughout 2019 and prior years. We hope you will find it helpful to know the sources of your water and the process by which safe drinking water is delivered to your home or business.

## *Where Does My Water Come From?*

WMWS water comes from two well fields located in Wellfleet. The Coles Neck Well Field, off Gristmill Way is composed of three deep wells that draw water from a sub-surface aquifer. This water source is located on 10.91 protected acres of undeveloped land that abuts the Cape Cod National Seashore and the Wellfleet Woods subdivision. The newer Boy Scout Camp Well Field is located off Old County Road. It is comprised of two 10-inch in diameter stone-packed deep wells. Water is then pumped to a 500,000 gallon water storage tank on Lawrence Road and delivered via 4-, 8- and 12-inch water mains.

## *Is My Water Treated?*

The municipal water is treated with a small amount of potassium hydroxide solution to balance the pH and reduce acidity, which is the main cause for corrosion in household plumbing and water services. The average range of pH in the system is 7.4-7.7. No Fluoride is added to municipal water. Lead and copper samples were taken in 2011 and were found to be at acceptable levels. WWI will continue to monitor the water quality to ensure that municipal water meets or exceeds the Mass DEP and Federal EPA drinking water standards.

## *Board of Water Commissioners*

The 2019 members of the Board: James Hood, Chair, Curt Felix, Neil Gadwa , Thomas Flynn, Catharie Nass. The Board meets the 1st and 3rd Tuesday of every month. Public attendance and participation is encouraged and welcomed.

## Wellfleet Municipal Water System

***The Wellfleet Municipal Water System (WMWS) system is operated and maintained by Whitewater, Inc., (WWI) with oversight by the WMWS Board of Water Commissioners. If you have any questions about this report, please contact either:***

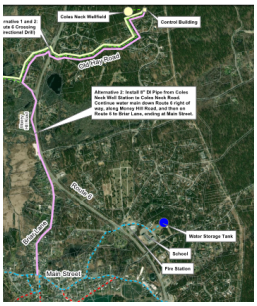
***The WMWS Board of Water Commissioners at (508) 349-0330***
***Email BWC@wellfleet-ma.gov***
***or***
***Russell Tierney, Northeast Regional Manager Water & Wastewater Operations, WWI at (888) 377-7678***

WhiteWater
WATER & WASTEWATER SOLUTIONS

***Additional copies of this report are available upon request.***

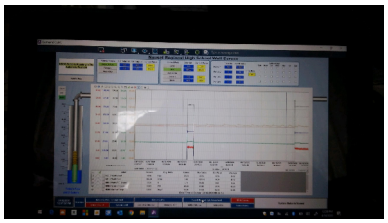
## *Water System Status in 2019*

In 2019, the board voted to review two much needed improvements to the water system. The first would update the transmission main from Coles Neck Wellfield, and the second improve the existing Supervisory Control and Data Acquisition (SCADA)system to comply with the changes in MassDEP Regulations and improve overall system operations.




Water that is pumped from Coles Neck Wellfield and travels through the original 2" and 4' PVC water mains that have become heavily tuberculated over the years. In the event there is an issue with the Boy Scout Camp wells for an extended period, the system hydraulics would be affected and this situation could hamper fire protection and the ability to fill the water tank. The new water main will not only improve the infrastructure but provide much needed redundancy to the system.

The SCADA system components are aged and some of the repairs parts are becoming unavailable. The new SCADA system will be updated with newest radio technology, allow more effective communications between the wells and storage tank, improve alarms and system safety components and improve the operation of the Coles Neck Wellfield.



The BWC is constantly review the needs of the water system and recommend improvement to provide customer with the safest and cleanest drinking water on Cape Cod.

# DISTRIBUTION SYSTEM WATER QUALITY

This report summarizes only those items detected during sampling - not all contaminants that are monitored.

| *Microbial Results* | Highest # Positive in a Month | Total # Positive | MCL | MCLG | Violation | Possible Source of Contamination |
|---|---|---|---|---|---|---|
| Total Coliform | 1 | 1 | 1 | 0 | No | Naturally present in the environment |
| Fecal coliform-*E.coli* | n/a | 0 | * | 0 | No | Human and animal fecal waste |

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

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

| *Lead & Copper* | Date(s) Collected | 90th Percentile of Sample | Action Level | MCLG | # of Sites sampled | # of Sites Above Action Level | Exceeds Action Level? | Possible Source of Contamination |
|---|---|---|---|---|---|---|---|---|
| Lead (ppb) | 2017 | 8 | 15 | 0 | 10 | 0 | No | Corrosion of household plumbing systems |
| Copper (ppm) | | 0.21 | 1.3 | 1.3 | | 0 | No | Corrosion of household plumbing systems |

# TESTING FOR LEAD

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. **Wellfleet Municipal Water System** is responsible for providing high quality drinking water that meets or exceeds the Mass DEP and EPA standards, but cannot control materials used in plumbing components. If 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.

# SOURCE WATER CHARACTERISTICS

### Key to Tables

- ppm – Parts per million, corresponds to one penny in $10,000
- ppb – Parts per billion, corresponds to one penny in $10,000,000
- pCi/L – Picocuries per liter (a measure of radioactivity)
- ND – Not detected
- n/a - not applicable
- RAA –Running annual average
- TT—Treatment technique

The sources of drinking water in the United States (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 storm water runoff, industrial or domestic wastewater discharges, 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. These contaminants can also come from gasoline storage, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

# SUMMARY OF FINISHED WATER CHARACTERISTICS

| ***Regulated Contaminants*** | **Date(s) Collected** | **Highest Detected Value** | **Range Detected** | **MCL** | **MCLG** | **Violation** | **Possible Source of Contamination** |
|---|---|---|---|---|---|---|---|
| **Inorganic Contaminants** | | | | | | | |
| Nitrate (ppm) | 4/8/19 | 0.297 | 0.107-0.297 | 10 | 10 | No | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Nitrite (ppm) | 6/17/14 | 0.026 | 0.021-0.026 | 1 | 1 | No | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Perchlorate (ppb) | 7/18/17 | 0.051 | ND-0.051 | 2 | n/a | No | Rocket propellants, fireworks, munitions, flares, blasting agents |
| **Radioactive Contaminants** | | | | | | | |
| Radium 226 & 228 (pCi/L) (combined) | 1/22/13 | 0.41 | n/a | 5 | 0 | No | Erosion of natural deposits |

| ***Unregulated Contaminants*** | **Date(s) Collected** | **Result or Range Detected** | **Average** | **SMCL** | **ORSG** | **Possible Source of Contamination** |
|---|---|---|---|---|---|---|
| **Inorganic Contaminants** | | | | | | |
| Sodium (ppm)* | 7/18/17 | 13 | n/a | - | 20 | Natural sources; runoff from use as salt on roadways; by-product of treatment process |
| **Organic Contaminants** | | | | | | |
| Chloroform (ppb) | 7/17/17 | 0.8-3.8 | 2.3 | - | 5 | By-product of drinking water chlorination |

***Sodium** is a naturally-occurring common element found in soil and water. It is necessary for the normal functioning of regulating fluids in human systems. Some people, however, have difficulty regulating fluid volume as a result of several diseases, including congestive heart failure and hypertension. The guideline of 20 mg/L for sodium represents a level in water that physicians and sodium sensitive individuals should be aware of in cases where sodium exposures are being carefully controlled. For additional information, contact your health care provider, your local board of health or the Massachusetts Department of Public Health, Bureau of Environmental Health Assessment at 617-624-5757.

## SOME TERMS DEFINED

**Action Level (AL):** *The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.*

**Maximum Contaminant Level Goal (MCLG):** *The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety*

**Maximum Contaminant Level (MCL):** *The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.*

**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, non-cancer health effects are likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.*

**Total Coliform:** *A bacteria that indicates other potentially harmful bacteria may be present.*

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

**90$^{th}$ Percentile:** *Out of every 10 homes, 9 were at or below this level.*

## *SHOULD SOME PEOPLE TAKE SPECIAL PRECAUTIONS?*

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 particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/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 (800) 426-4791.

## *WHAT SHOULD I DO IN CASE OF AN EMERGENCY?*

**In case of a non-life-threatening emergency please contact WhiteWater Inc., (24/7) at 888-377-7678. In all other situations call 911.**

## Maintaining Water Quality

WMWS continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor both our sources and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996. We follow a sampling schedule that is received from the MassDEP every 3 years. The parameters sampled for from our sources and within the distribution systems are determined by the MassDEP from past sampling and other requirements. The actual sample locations and times are determined and approved by the MassDEP.

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

### Tips To Help Conserve Water

Water conservation measures are an important first step in protecting our precious resource. Such measures preserve the supply of our source water To help you help us, we offer the following conservation tips:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices, in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

## FOR YOUR INFORMATION

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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

For additional information contact:
Massachusetts Department of Environmental Protection (MassDEP) 617-292-5885 / http://www.mass.gov/eea/agencies/massdep

Massachusetts Drinking Water Education Partnership:
http://www.mass.gov/eea/agencies/massdep/water/drinking

## SWAP (Source Water Assessment and Protection)

The MassDEP has prepared a Source Water Assessment Program (SWAP) Report for Wellfleet Municipal Water Supply. The report assesses the susceptibility of public water supplies to contamination and makes recommendations. This report is available from the MassDEP website: http://www.mass.gov/eea/docs/dep/water/drinking/swap/sero/4318094.pdf.

A susceptibility ranking of **moderate** was assigned to all wells in our system by the MassDEP and meets all US Environmental Protection Agency (USEPA) and MassDEP drinking water quality standards.

Be assured that Wellfleet Municipal Water Supply in concert with its certified operator, WhiteWater, Inc., is addressing the concerns as stated in the SWAP Report and welcomes your input to our planning. If you have any questions, please contact WhiteWater, Inc., at 1-888 377-7678.

Typical Hose Bibb Vacuum

### Cross Connection Control and Backflow Protection in your water system

A Cross Connection means any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources. The WMWS recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the potable water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection. The MassDEP and WMWS require the physical separation between the public water supply to your home and a private well used for irrigation or other purposes, these instances will be monitored for compliance. For more information please contact Russell E. Tierney, Northeast Regional Manager Water Operations, WWI at 888-377-7678.

**Wellfleet Municipal Water System**
300 Main Street | Wellfleet | MA 02667

**OFFICE LOCATION:** TOWN HALL 2nd FLOOR, ROOM 207, WELLFLEET, MA 02667
**OFFICE HOURS:** MONDAY—FRIDAY, 8:00 AM - 4:00 PM
**PHONE:** (508) 349-0330 **EMAIL:** bwc@wellfleet-ma.gov **WEB:** www.wellfleet-ma.gov