ANNUALWATER QUALITY REPORT

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Water Testing Performed in 2014



Presented By Milford Water Company Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Este relatório contem a informação importante sobre sua água bebendo. Tenha-o por favor traduzido por um amigo ou por alguém que o compreende e o pode o traduzir para você.

PWS ID#: 2185000

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you. Please visit our Web site for updates: www.milfordwater.com.

Lead in Home Plumbing

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. We are responsible for providing highquality drinking water, but we 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 www.epa.gov/safewater/lead.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 (800) 426-4791 or http:// water.epa.gov/drink/hotline.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribe regulations limiting 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. 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.

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; **Inorganic** Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 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 may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call David L. Condrey, Manager, at (508) 473-5110 or send an e-mail message to the company at milfordwater@milfordwater.com.

Where Does My Water Come From?

The Milford Water Company provides treated water from five different sources. Our Dilla Street facilities purify water from the Charles River, the Echo Lake reservoir, the Dilla Street wells, and the Clark's Island wells. Our company also maintains a facility off Depot Street that purifies water collected from five wells located along Godfrey Brook. All of our wells are constructed in sand-and-gravel aquifers with depths ranging from 22 feet to 52 feet. Due to this relatively shallow nature, it is critical that we protect our resources against contamination. Our distribution system contains more than 100 miles of pipes, three water storage tanks, and three pumping stations that deliver approximately 1 billion gallons of water each year. Because each of our five sources of supply cannot alone provide the volume of water needed by our customers, each is used during different times of the year. One single source cannot usually be identified for every customer because we blend the water before purification and also during delivery. We have the ability to obtain mutual aid from the towns of Bellingham, Holliston, Hopkinton, and Medway for providing water to meet our short-term customer needs.

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

- Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.
- Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.
- Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.
- Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A crossconnection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at http://water.epa.gov/infrastructure/drinkingwater/pws/ crossconnectioncontrol/index.cfm. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

As part of the Source Water Assessment Program (SWAP), the MA Department of Environmental Protection conducted assessments of our drinking water sources in 2002 for the purpose of determining susceptibility of each drinking water source to potential contamination. The assessment susceptibility for Milford Water was reported to be high based upon the presence of at least one high-threat land use within our protective areas. The complete SWAP report is available at the company's office and online at www.mass.gov/dep/water/drinking/2185000.pdf.

When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

How much water do we use every day?

The average person in the U.S. uses 80 to 100 gallons of water each day. (During medieval times, a person used only 5 gallons per day.) It takes 2 gallons to brush your teeth, 2 to 7 gallons to flush a toilet, and 25 to 50 gallons to take a shower.

When was chlorine first used in the U.S.?

In 1908, Jersey City, New Jersey, and Chicago, Illinois, were the first water supplies to be chlorinated in the U.S.

Seventy-one percent of Earth is covered in water: How much is drinkable?

Oceans hold about 96.5 percent of all Earth's water. Only three percent of the Earth's water can be used as drinking water. Seventy-five percent of the world's fresh water is frozen in the polar ice caps.

How much water is in our atmosphere?

Forty trillion gallons of water are carried in the atmosphere across the U.S. each day.

How much water is in our bodies?

Water makes up almost two-thirds of the human body and 70 percent of the brain. Four hundred gallons of water are recycled through our kidneys each day.

How long can a person go without water?

Although a person can live without food for more than a month, a person can live without water for only approximately one week.

Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And water has no sugar or caffeine.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic organic organic, the tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

| REGULATED SUBSTANCES | | | | | | | | | | | | | |
|--|------------------------------|------------|--------------|-------------------------------|-------------------------------|----------|-----------------|--------------------|------------------|---------|-----------|---|--|
| SUBSTANCE (UNIT OF MEASURE) | STANCE T OF MEASURE) | | YEA SAMPI | YEAR MCL AMPLED [MRDL] | | | MCLG [MRDLG] | AMOUNT DETECTED | RANGE LOW-HIG | н \ | VIOLATION | ΤY | YPICAL SOURCE |
| Alpha Emitters (pCi/L) | lpha Emitters (pCi/L) | | 201 | .3 | 15 | | 0 | 7.2 | ND-7. | 2 | No | E | Erosion of natural deposits |
| Asbestos (MFL) | | 201 | .1 | 7 | | 7 | 0.19 | 0.19-0.1 | 19 | No | D | Decay of asbestos cement water mains; Erosion of natural deposits | |
| Barium (ppm) | | 201 | .4 | 2 | | 2 | 0.024 | 0.020-0.0 |)24 | No | D n | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits | |
| Chlorine (ppm) | | | 201 | .4 | [4] | | [4] | 1.73 | 0.10-1.7 | 73 | No | W | Water additive used to control microbes |
| Combined Radium (pCi/L) | | | 201 | .3 | 5 | | 0 | 0.8 | ND-0. | 8 | No | E | Erosion of natural deposits |
| Haloacetic Acids [HAAs]–Stage 2 (ppb) | | 201 | .4 | 60 | | NA | 11.8 | 4.3–11. | 8 | No | В | By-product of drinking water disinfection | |
| Nitrate (ppm) | | 201 | .4 | 10 | | 10 | 0.80 | 0.12-0.80 | | No | R n | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits | |
| Perchlorate (ppb) | | 201 | .4 | 2 | | NA | 0.23 | 0.10-0.23 | | No | Ir m | norganic chemicals used as oxidizers in solid propellants for rockets, nissiles, fireworks, and explosives | |
| TTHMs [Total Trihalomethanes]-Stage 2 (ppb) | | 201 | .4 | 80 | | NA | 34.6 | 10.7–34.6 | | No | В | By-product of drinking water disinfection | |
| Tetrachloroethylene (ppb) | | 201 | .4 | 5 | | 0 | 0.6 | ND-0.6 | | No | D | Discharge from factories and dry cleaners | |
| Total Coliform Bacteria (% positive samples) | | | 201 | .4 sa | 5% of month samples are po | | 0 | 2 | NA | | No | N | Naturally present in the environment |
| Total Organic Carbon (ppm) | | | 201 | 4 | ΤŤ | | NA | 2.01 | 1.15-2.01 | | No | N | Naturally present in the environment |
| Turbidity ¹ (NTU) | | | 201 | .4 | TT | | NA | 0.31 | 0.03-0.31 | | No | S | Soil runoff |
| Turbidity (Lowest monthly percent of samples meeting limit) | | 201 | 4 T | TT=95% of samples <0.3 NTU | | NA | 96 | NA | | No | S | Soil runoff | |
| Tap water samples were collected for I | lead and | d copper a | nalyses f | from sam | ple sites throu | ghout th | he community | у. | | | | | |
| SUBSTANCE (UNIT OF MEASURE) | YEAR S | AMPLED | AL | MCLG | AMOUNT DI | ETECTE | D (90TH%TI | LE) SITES AE | BOVE AL/TOT | AL SITE | ES VIOLA | | N TYPICAL SOURCE |
| Copper (ppm) | 20 | 013 | 1.3 | 1.3 | | 0.22 | 2 | | 0/30 | | N | lo | Corrosion of household plumbing systems; Erosion of natural deposits |
| Lead (ppb) | 20 | 013 | 15 | 0 | | 5 | | | 2/30 | | N | lo | Corrosion of household plumbing systems; Erosion of natural deposits |
| SECONDARY SUBSTANCES | | | · | | | | | | | | | | |
| SUBSTANCE (UNIT OF MEASURE) | | YEAR SA | MPLED | SMC | L MCLG | | NT DETECTE | D RANGE L | OW-HIGH | EXCEE | DANCE | TYP | PICAL SOURCE |
| Chloride (ppm) | | 201 | 14 | 250 |) NA | | 148 | 75.4- | -148 | Ν | No | Rui | noff/leaching from natural deposits |
| Color (Units) | blor (Units) 20 | | 14 | 15 | NA | NA | | ND | 10 N | | No | Nat | iturally-occurring organic materials |
| Copper (ppm) | | 201 | 2014 | | NA | NA | | ND- | D-0.14 | | No | | prrosion of household plumbing systems; Erosion of natural deposits |
| Iron (ppb) 20 | | 201 | 14 | 300 |) NA | NA 220 | | ND- | -220 | No | | Lea | aching from natural deposits; Industrial wastes |
| Manganese ² (ppb) 201 | | 14 | 50 | NA | NA | | ND- | -236 | 36 Yes | | Lea | aching from natural deposits | |
| pH (Units) 2 | | 201 | 2014 | | 8.5 NA | | 9.01 | 6.56- | 6.56–9.01 | | No | | iturally occurring |
| Sulfate (ppm) | | 201 | 14 | 250 |) NA | NA | | 5- | 16 | Ν | No F | | noff/leaching from natural deposits; Industrial wastes |
| Total Dissolved Solids [TDS] (ppm) | | 2014 | | 500 |) NA | | 172 | 72- | 172 | Ν | No | Ru | noff/leaching from natural deposits |
| Zinc (ppm) | | 2014 | | 5 | 5 NA | | 0.297 | 0.14-0 | 0.297 | No | | Rui | noff/leaching from natural deposits; Industrial wastes |

| UNREGULATED SUBSTANCES ³ | | | | | | | | | |
|-------------------------------------|-----------------|--------------------|-------------------|---|--|--|--|--|--|
| SUBSTANCE (UNIT OF MEASURE) | YEAR SAMPLED | AMOUNT DETECTED | RANGE LOW-HIGH | TYPICAL SOURCE | | | | | |
| Bromodichloromethane (ppb) | 2014 | 9.2 | 6.3–9.2 | By-product of drinking water disinfection | | | | | |
| Chlorodibromomethane (ppb) | 2014 | 4.4 | 3.6-4.4 | By-product of drinking water disinfection | | | | | |
| Chloroform (ppb) | 2014 | 9.8 | 5.3–9.8 | By-product of drinking water disinfection | | | | | |
| Sodium ⁴ (ppm) | 2014 | 48.0 | 46.2–48.0 | Naturally present in the environment; Storm water runoff | | | | | |

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OTHER SUBSTANCES SUBSTANCE YEAR AMOUNT RANGE (UNIT OF MEASURE) SAMPLED DETECTED LOW-HIGH Alkalinity (ppm) 2014 42 15-42 Calcium (ppm) 2014 20 8.1 - 20Hardness (ppm) 2014 64 27 - 64Magnesium (ppm) 2014 3.5 1.7 - 3.5

2014

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¹Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. ²Manganese is a naturally occurring mineral found in rocks, soil, groundwater, and surface water. Manganese is necessary for proper nutrition and is

Potassium (ppm)

part of a healthy diet, but it can have undesirable effects on certain sensitive populations at elevated concentrations. MA DEP has set a health advisory limit for manganese at 300 ppb.

³Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining their occurrence in drinking water and whether future regulation is warranted.

⁴Sodium-sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the levels of sodium in their drinking water where exposures are being carefully controlled.

Definitions

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

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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. Secondary MCLs (SMCL) are established to regulate the aesthetics of drinking water like taste and odor.

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.

MFL (million fibers per liter): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (**parts per billion**): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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