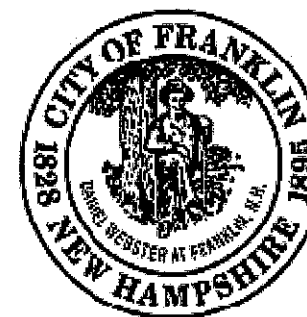


City of Franklin



Water Quality
Consumer
Confidence Report

Volume 21
June 2019

City of Franklin
Municipal Services
43 West Bow Street
Franklin, NH 03235

Franklin, New Hampshire Water Department 2019 Consumer Confidence Report

The City of Franklin, New Hampshire operates a public water system with a customer base of 2,453 service connections. Additionally, there are 274 fire hydrants, which provide fire protection to the City. Our potable water is derived from four separate groundwater wells, from which we pump approximately 525,000 gallons per day to meet our daily water demand. Geographically, the water distribution system serves about two thirds of the City. The customer base is primarily residential. We operate as a public water system. Therefore, we are required to meet State and Federal Water Quality Standards. Our staff of 4 licensed operators handle water treatment and distribution, while a number of part time support staff are responsible for administration; planning; billing and monitoring regulatory compliance. Monthly water samples are taken to a certified analytical lab in Concord, NH. Annually, approximately 1,150 various types of water samples are taken on a combined weekly and daily basis. Sampling results are reviewed and posted on the New Hampshire Department of Environmental Services website.

Because Franklins' topography is comprised of many hills and ravines, we operate a somewhat complex water distribution system, which requires three separate pressure zones. Groundwater is pumped from the three well fields with pumping stations. Three of our four pumping stations deliver raw water through a water treatment plant where treatment, disinfection and filtration take place, prior to entering the water distribution system, which then fill our five water storage tanks, providing 3,250,000 gallons of storage capacity. The water treatment plant removes iron and manganese from the water, by means of green sand filtration, and is capable of filtering up to 1,000 gallons of water per minute. The water distribution system contains an approximate 52 miles of pipelines. System pressure varies, however, the average water pressure to customers ranges from 40 to 80 P.S.I.

The cost to produce safe drinking water continues to increase. It takes electricity to pump water; chlorine to disinfect; labor and staff to monitor and maintain the system; materials such as pipe, fittings etc. to repair water lines; motorized equipment to check various tanks; pumping stations; providing customer service and to make necessary repairs to water mains and service connections. Emergency backup power is available at all pumping stations, and at the water treatment plant, in the event of extended power loss. System monitoring and communications equipment operate all day every day to ensure data from the system is transmitted to water staff, by means of radio frequency communications.

Capital Improvements, maintenance and operation are essential elements necessary to guarantee the short-term and long-term needs and upgrades to the system. Therefore, water rates supported by the customer base are our primary source of revenue. Franklins' Water Department, like most public water systems, operates as an Enterprise Fund, where the ratepayer supports system operations. No revenue is derived through property taxation.

Unfortunately, the cost to produce and deliver water to our customers, coupled with the need to perform capital improvements to our water infrastructure, continue to increase. These costs are reflected in our water rates. One of our greatest challenges is the modest size of our customer base, which must support an extensive water system. The number of customers is disproportionate to the size of the water utility, resulting in higher than average water rates.

Safe Drinking Water is no longer a cheap commodity. My major concerns of Franklins' public water system are the long-term sustainability and the cost associated with the various factors, which I described above, to keep the system operational. We all need water and the expectation from the customer is to deliver.

The water rates you have paid over the years have supported major capital projects essential to maintaining the system. The following projects, completed during the past eighteen months, identify system upgrades in order to ensure that Franklin stays ahead, with regard to meeting infrastructure needs. City staff has been very successful securing low interest loans and grants to help offset costs for many of our major infrastructure projects.

- Leak Detection has been performed throughout the entire system. The results show we have very minimal water loss.
- Our \$3,800,000 Water Treatment Plant is in its eighth year of operation. The plant operates at optimal performance removing 98% of the iron and manganese from the raw drinking water through filtration.
- The 44-year-old antiquated Pleasant Street Pressure Reducing Chamber has been replaced.
- Four of the five Water Storage Tanks have either been replaced or completely rehabilitated.
- The Sanbornton Pumping Station, originally put online in the 1940's, has been completely refurbished.
- Energy efficient motors have replaced older pump motors.
- The "SCADA" system, which is the backbone of our radio communications network delivering water system data and security monitoring, has been upgraded.
- 2,800 feet of water main replacement was completed, in conjunction with the reconstruction of Route 3 / South Main Street.
- Redevelopment of one gravel packed well is currently in progress.
- The cleaning of two other well points is planned for this year.

2019 Consumer Confidence Report

City of Franklin, New Hampshire

Water Department

PWS ID#0851010

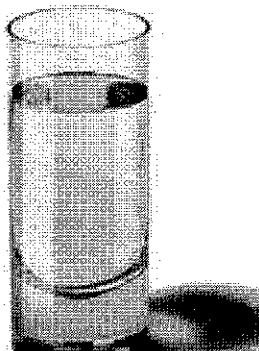
Introduction

Our mission for the City of Franklin Water Department is to ensure the long-term sustainability of extensive above and below ground Assets and Infrastructure. Aging infrastructure presents challenges to drinking water safety, and continuous improvements are needed to maintain the quality of life we desire for today and for future ratepayers.

In the past year we continued to implement our long term "Asset Management Plan"/ Capital Efficiency Report. The purpose of this document is to ensure the long-term operation, maintenance and upkeep of the City of Franklin, NH Public Water System.

Our current cost to pump, filter, store, distribute and operate the system is \$6.62 for 748 gallons of clean safe drinking water which is also used for the City's necessary Fire Protection. When considering the high value we place on water, it is truly a bargain to have water service that protects public health, fights fires, supports businesses and the economy, and provides us with the high quality of life we enjoy. To give you a quick idea of the amount of infrastructure we have to maintain, there are 2,453 service connections; 52 miles of distribution lines; 5 water storage tanks consisting of three separate pressure zones; a Water Treatment Plant; three groundwater well fields; four full time employees; two vans; two dump trucks; a service truck; backhoe and our Maintenance Garage/Storage Yard.

NOW IT COMES WITH A
LIST OF INGREDIENTS.



What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it

comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

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.

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, and can also come from gas stations, 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amounts of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

What is the source of my drinking water?

City water is pumped from three different wellfields. Our average daily demand is about 525,000 gallons per day. The water is filtered thorough our Water Treatment Plant and Disinfection is accomplished by chlorination. The Plant removes 98% of the iron and manganese from the raw water pumped from the wells.

Why are contaminants in my water? 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 1-800-426-4791.

Do I need to 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 at 1-800-426-4791.

Source Water Assessment Summary

DES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment prepared on June 4, 1999 are noted below:

>GPW#1, 1 susceptibility factor was rated high, 2 rated medium and 9 rated low.

>GPW#2, 2 susceptibility factors were rated high, 2 rated medium and 8 were rated low.

>GPW #3, 2 susceptibility factors were rated high,

3 were rated medium and 7 were rated low.
>GPW #4, 4 susceptibility factors were rated high, 2 were rated medium and 6 were rated low.

Note: This information is over 20 years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data.

The complete Assessment Report is available for review at the Franklin Municipal Services Dept. Office 43 West Bow Street Franklin, NH - 603-934-4103 or visits the DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

How can I get involved?

If you are interested in learning more about our water system you can contact Brian J. Sullivan, Director of Municipal Services at 43 West Bow Street Franklin, NH or by calling 603-934-4103. You can also attend Municipal Services Committee Meetings that meet on a regular basis to discuss any questions or concerns you may have. All proposed rate increases and changes to the Water Department City Ordinance are scheduled for Public Hearings by the Franklin City Council before approval.

Violations and Other information:

The Franklin Water Department had NO VIOLATIONS in 2018

Definitions:

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

Level I Assessment: A study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level II Assessment: A very detailed study of the water system to identify potential problems and determine, if possible, why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Contaminant Level or 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 or 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.

Maximum Residual Disinfectant Level or MRDL: 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.

Maximum Residual Disinfectant Level Goal or MRDLG: 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.

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

Abbreviations:

BDL: Below Detection Limit

mg/L: milligrams per Liter

NA: Not Applicable

ND: Not Detectable at testing limits

NTU: Nephelometric Turbidity Unit

pCi/L: picoCurie per Liter

ppb: parts per billion

ppm: parts per million

RAA: Running Annual Average

TTHM: Total Trihalomethanes

UCMR: Unregulated Contaminant Monitoring Rule

ug/L: micrograms per Liter

Drinking Water Contaminants:

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. This water system is responsible for high quality drinking water, but can not control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and 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://water.epa.gov/drink/info/lead/index.cfm>

System Name: Franklin, NH Water Department

PWS ID: 0851010

2019 Report (2018 data)

ADDITIONAL TESTING

Additional Tests & Secondary MCLs (SMCL)	Results	Date	Treatment technique (if any)	AL (Action Level), SMCL or AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Sodium (ppm)	24-37 mg/L	3/15/18	None	100-250	We are required to regularly sample for sodium

*The value must be reported as whole number, see Env-Dw 811, Appendix B for conversions:

LEAD AND COPPER

Contaminant (Units)	Action Level	90 th percentile sample value *	Date	# of sites above AL	Violation Yes/No	Likely Source of Contamination	Health Effects of Contaminant
Copper (ppm)	1.3	0.9 mg/L	9/18/17	None	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead (ppb)	15	0.006 mg/L	9/18/17	None	No	Corrosion of household plumbing systems, erosion of natural deposits	(15 ppb in more than 5%) Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791). (above 15 ppb) Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

*If applicable report average and range and date sampled if prior to the reporting year. Level detected must be reported as whole number, see Env-Dw 811, Appendix B for conversions:

DETECTED WATER QUALITY RESULTS

Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Radioactive Contaminants						
Compliance Gross Alpha (pCi/L)	.01 to .07	15	0	No	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined Radium 226 + 228 (pCi/L)	.02 to 1.0	5	0	No	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Inorganic Contaminants						
Nitrate (as Nitrogen) (ppm)	.084 ppm	10	10		Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	(5 ppm through 10ppm) Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider. (Above 10 ppm) Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Volatile Organic Contaminants						
Haloacetic Acids (HAA) (ppb)	<6 ppb	60	NA	No	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Total Trihalomethanes (TTHM) (Bromodichloromethane Bromoform Dibromochloromethane Chloroform) (ppb)	Range: 4.02 to 4.70 ug/L	80	N/A	No	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.