



City of Franklin



Water Quality
Consumer
Confidence Report

Volume 13
July 2011

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City of Franklin
Municipal Services
43 W. Bow Street
Franklin, NH 03235

Franklin Residents Please Note:

Effective July 17, 2011

New Transfer Station Schedule

Open Tuesday, Thursday and Saturday

7:30 A.M. to 3 P.M.

Closed Monday, Wednesday, Friday,

Sunday and Holidays

Consumer Confidence Report

City of Franklin

2011

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 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 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 amount 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?

Franklin obtains its water from three different groundwater well fields. Each of these well fields consists of gravel-packed wells and a pumping station, which in turn pumps water to a total of five water storage tanks throughout the City. The system serves approximately 2,292 customers and supplies water to 297 fire hydrants.

The water is treated for iron and manganese, which are secondary contaminants and are characteristic to the aquifers in much of the Northeast. Unlike primary contaminants, which pose a health risk, secondary contaminants mostly affect the aesthetic quality of water. Therefore, the City continues to treat the water with hexametaphosphate in an effort to reduce the staining these contaminants leave on plumbing fixtures and clothing. The City also makes available, at no cost, a product that will remove most stains from fixtures and clothing. This product is available for pick-up at the Municipal Services Department Office at 43 West Bow Street.

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 were rated medium, and 9 were rated low.

GPW # 2, 2 susceptibility factors were rated high, 2 were 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 12 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.

NOW IT COMES WITH A
LIST OF INGREDIENTS.



The complete Assessment Report is available for review at the Municipal Services Department office at 43 West Bow Street, Franklin, NH. For more information, call (603) 934-4103, or visit the DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

How can I get involved?

For more information about your drinking water, please call Brian Sullivan, Municipal Services Director, at 934-4103, Monday through Friday (except holidays), 7:30 a.m. to 4:30 p.m. Although we do not have specific dates for public participation events or meetings, feel free to contact us with any questions you may have.

Violations and Other information: With this study, we are pleased to report that Franklin's drinking water meets federal and state requirements. The Franklin Water Department, like all other public drinking water systems in the state, submits to an ongoing, rigorous testing program. All sampling is reviewed monthly by the DES Laboratory.

Definitions:

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

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.

Turbidity: A measure of the cloudiness of the water. It is monitored by surface water systems because it is a good indicator of water quality and thus helps measure the effectiveness of the treatment process. High turbidity can hinder the effectiveness of disinfectants.

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

THE FOLLOWING APPLIES if these contaminants are present - see table for detected levels.

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>

Radon: Radon is a radioactive gas that you can't see, taste or smell. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. It is a known human carcinogen. Breathing radon can lead to lung cancer. Drinking water containing radon may cause an increased risk of stomach cancer.

2011

DETECTED WATER QUALITY RESULTS

Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Health Effects of Contaminant	
					Likely Source of Contamination	
Radioactive Contaminants						
Combined Radium 226 + 228 (pCi/L)	.10 - .70	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						
Arsenic (ppb)	.001	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(5 ppb through 10 ppb) While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. (Above 10 ppm) Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Barium (ppm)	.005	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Copper (ppm)	.05 - .63	AL=1.3	1.3	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)	1 - 9	AL=15	0	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.
Nitrate (as Nitrogen) (ppm)	.08 - 1.1	10	10	No	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.

Franklin Water Treatment Facility

The City of Franklin's municipal water system services 2,292 residences, equating to more than 6,000 residents. The construction of the Franklin Water Treatment Facility will provide removal of excessive levels of iron and manganese in water from the City's Acme and Franklin Falls Wells. Iron and manganese plug up the pipes in the distribution system and decrease their hydraulic capacity. The improved water quality will also provide aesthetic benefit to customers.



In addition to the construction of the water treatment facility, raw and finished water mains are being installed between the Franklin Falls and Acme wells via directionally drilled pipelines under the Pemigewasset River. This new river crossing will create enhanced system reliability.

The third aspect of this project, a new finished water main along Hill Road and the Water Treatment Facility access road, was completed in September 2010. This water main provides a connection from the Franklin Water Treatment Facility to the existing distribution system.

Franklin Water Treatment Facility Statistics

- Pressure Filter System
- 8-Foot Diameter Vertical Pressure Filter Vessels
- Design Flow Rate: 1,000 gpm
- Filter Media: GreensandPlus™
- Variable Speed Supernatant Pumps
- Single Speed Sludge Pump
- Chemical Feed Equipment: Sodium Hypochlorite, Sodium Carbonate, Orthophosphate



Franklin Water Treatment Facility



Pemigewasset River Crossing



Hill Road Water Main