TOWN OF WARE
DEPARTMENT OF PUBLIC WORKS
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PWS ID #1309000

2010 DRINKING WATER QUALITY REPORT

In accordance with federal drinking water regulations, the Town of Ware has prepared this Water Quality Report to inform consumers about the quality of water provided over the past year. In addition to water quality information, this report includes information on the Ware water production, treatment, storage and distribution systems. If you have any questions about this report, please contact Mr. Thom Martens at the Ware Department of Public Works at (413) 967-9620.

YOUR DRINKING WATER SOURCES

The Town of Ware has six groundwater supplies at two sources. The Barnes Street source consists of four gravel-packed wells that discharge into a large diameter brick cistern that is also an active supply source. The Town began withdrawing water from Barnes Street in 1886 and the supply was supplemented with gravel-packed wells in 1965 and 1978. The Dismal Swamp source consists of a single gravel-packed well located on Gilbertville Road. The Dismal Swamp supply was brought on line in 1999. The Barnes Street wells are located in the central section of the distribution system along Muddy Brook and the Dismal Swamp well is located near the northeastern border of Ware.

During 2010, these two sources provided 265,317,000 gallons of potable water to 2,272 residential, commercial, municipal and industrial accounts. These two sources also supply water for fire protection to 345 public and 57 private fire hydrants.

The Town of Ware's water distribution system consists of approximately 42 miles of cast iron, ductile iron and asbestos-cement water mains ranging from four to twelve inches in diameter. The Town has two water storage facilities – the Anderson Road Standpipe and the Church Street Reservoir. The Anderson Road Standpipe has a capacity of 1.0 million gallons and is located in the southwestern portion of the system. The Church Street Reservoir has a capacity of 1.5 million gallons and is located in the northern portion of the Town.

Currently, the Town is operating a full-scale corrosion control program at both the Barnes Street and Dismal Swamp well sites using potassium hydroxide to reduce the levels of lead and copper at the household tap by raising the pH of the raw water from approximately 6.0 to 7.2. In addition to the corrosion control program, the Town is continually operating a chlorination system at Barnes Street. The Town is required to maintain a chlorine residual of 0.2 parts per million at this source. A typical swimming pool should have a chlorine residual between 1 and 3 parts per million.

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 mineral, and in some cases, radioactive material. It 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, or farming.

Pesticides and herbicides - which may come from a variety of sources such as agricultural, 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 U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) 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 Safe Drinking Water Hotline at 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 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.

IMPORTANT DEFINITIONS

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level (MRDL) – The level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfection is necessary for control of microbial contaminants.

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

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

Variances and Exemptions – State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Part Per Million (ppm) – This unit is equivalent to one milligram per liter (mg/L). One part per one million is equal to one minute in two years or one penny in $10,000.

Part Per Billion (ppb) – This unit is equivalent to one microgram per liter (μg/L). One part per one billion is equal to one minute in two thousand years or one penny in $10,000,000.

WATER QUALITY TESTING RESULTS

The tables below list all the drinking water contaminants that were detected in the 2010 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health threat.

Iron and Manganese

Secondary Contaminant	Date(s) Collected	Highest Detected Value	Range Detected	Highest Average	SMCL	Violation (Y/N)	Possible Source of Contamination
Iron (mg/L)	7/30/2010	0.37	ND – 0.37	0.1	0.3 (mg/L)	Y	Naturally occurring, corrosion of cast iron pipes.
Manganese (mg/L)	7/30/2010	0.15	ND – 0.15	0.05	0.05 (mg/L)	Y	Erosion of natural deposits.

	Highest # Possible in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	78	1	0	N**	Naturally present in the environment.
Fecal Coliform or E.coli	<1	*	0	N	Human and animal fecal waste.

*Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.
**Repeat testing showed no total coliform or fecal coliform/E.coli present.

During the third quarter of 2010, the Ware Water Department sampled for perchlorate at Barnes Street and the Dismal Swamp Well. Perchlorate was not detected at either location.

As required by the Schedule of Required Water Quality Sampling for the Years 2008 to 2010 issued by the Massachusetts Department of Environmental Protection (MADEP), the Ware Water Department sampled for Volatile Organic Contaminants (VOCs) quarterly at Barnes Street and annually at Dismal Swamp in 2010. However, VOC samples from Well #4, the Wellfield, and Cistern were inadvertently missed during the fourth quarter sampling of 2010. A follow up sample was collected in 2011 and will be reported in the 2011 CCR. No VOCs were detected at the sources during the first three quarters.

In the absence of the Department of Public Works Director, the nitrate sampling for the fourth quarter of 2010 was inadvertently missed. Therefore a follow up sample will be collected in the second quarter of 2011 and reported in the 2011 CCR.

Notice of Noncompliance

On January 28, 2011, the Department of Environmental Protection issued a Notice of Noncompliance for failing to submit Volatile Organic Compound (VOC) monitoring results scheduled during the fourth quarter of 2010. An additional sample will be collected in 2011 and reported in the 2011 CCR. A notice of Noncompliance will also be issued for the failure to submit Nitrate results for the fourth quarter of 2010. An additional sample will be collected in 2011 and be reported in the 2011 CCR.

MCL Violations:

All water contains a number of dissolved mineral and organic substances. The presence of contaminants in drinking water does not mean your water isn't safe. Federal and state drinking water standards establish limits, or Maximum Contaminant Levels (MCL's), for substances that might affect health or aesthetic qualities of water. More information about contaminants and potential health effects can be obtained by calling the US EPA hotline at 1-800-426-4791.

Protection of Water Sources:

The Town has taken an active approach in protecting its two groundwater supply sources. The Town has eliminated the storage of any groundskeeping equipment at the Barnes Street water supply and installed "No Parking" signs within the Zone I to protect that supply sources from potential impacts. MADEP completed a *Source Water Assessment and Protection (SWAP) Report* for the Ware Water Department, which inventoried land use within the recharge area of its public water supply sources, assessed the susceptibility of drinking water sources to contamination from these land uses and publicized the results to provide support for improved protection. The Massachusetts Rural Water Association also prepared a *Source Water Protection Plan* for the Ware Water Department in March 2005. Both of these documents are available for review at the Department of Public Works Office at 4½ Church Street, from 9:00 AM until 4:30 PM. The Town has worked with the Pioneer Valley Planning Commission to revise its zoning to include more restrictions on land use within the Zone II of the Barnes Street water supply. These revisions were articles on the warrant for the May 25th, 2010 Annual Town Meeting and have been endorsed by the Ware Planning Board.