



2005 WATER QUALITY REPORT

Proudly Presented By:
WALPOLE WATER
DEPARTMENT



PWS ID#: MA3307000

Continuing Our Commitment

We are once again proud to present to you our annual water quality report. Over the years we have strived to produce drinking water that meets or exceeds all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering to you the best quality drinking water. As regulations and drinking water standards change, we are committed to incorporating these changes system-wide in an expeditious and cost-effective manner.

As we enter our 111th year of providing public water service, we all diligently maintain our objective of providing quality drinking water. Currently, this objective is achieved through the operation of municipally owned treatment facilities for each of Walpole's two aquifers. The newly constructed H.E. Willis Plant located on Leonard Road was placed into service in June of 2004 and utilizes a technologically advanced treatment system. The Edward J. Delaney Plant (formerly School Meadow Brook) has been operating since June of 1998 and continues to provide the desired level of treatment. If you have any health concerns related to the information in this report, we encourage you to contact your health care provider.

The office of the Walpole Water Department is located on the second floor of the Town Hall at 135 School Street. The normal office hours are Monday, Wednesday and Thursday from 8:00 a.m. to 4:00 p.m.; Tuesday from 8:00 a.m. to 8:00 p.m.; and Friday from 8:00 a.m. to 12:00 p.m. For more information about this report, or for any questions relating to your drinking water, please call Rick Mattson, Superintendent of Sewer and Water, at (508) 660-7307.

Where Does My Water Come From?

The water supply for the Town of Walpole consists of groundwater, which is drawn from two underground water-bearing formations called aquifers. These aquifers were created thousands of years ago at the end of the Great Ice Age.

The School Meadow Brook Aquifer, located in the southern section of town, currently has seven wells that have historically provided three-quarters of the town's total water production. The Mine Brook Aquifer, located in the west-northwestern section of town, now has four sets of operational wells that will allow for a more evenly balanced distribution of water production between the two aquifers.

As an alternative source of water, Walpole has interconnections with the towns of Foxboro and Norwood. These connections, which are located on Washington, Water and Union Streets, have not been used in recent years; however, they are maintained on a regular basis to ensure their availability if needed.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 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.

Source Water Assessment

The Massachusetts Department of Environmental Protection has completed a Source Water Assessment and Protection (SWAP) report for the Town of Walpole's water supply. The report contains information relative to land uses in the water supply areas of both the Mine Brook and School Meadow Brook aquifer wells, which are highly susceptible to potentially being contaminated. It also contains several recommendations including the use of best management practices and the performance of regular watershed inspections. These recommendations are being addressed through annual sanitary surveys of the aquifer areas and the management of stormwater discharges. As a member of the community, you can assist by limiting the use of pesticides and fertilizers on your lawn and by properly disposing of hazardous household chemicals. Anyone who wishes to read the report in its entirety may do so by visiting the water or health department offices located in the Town Hall or by going online at www.state.ma.us/dep/brp/dws. For more information, please call the Walpole Water Department at (508) 660-7309.



Community Participation

The Board of Sewer and Water Commissioners holds regularly scheduled meetings on the second and fourth Monday of each month. Those consumers who wish to attend or participate at meetings should look for postings in the Town Hall or call the secretary for details at (508) 660-7309. The public is invited to attend all meetings.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- 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.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Substances That Might Be in Drinking Water

In order to ensure that tap water is safe to drink, the Massachusetts Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribe regulations that limit 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, which 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.



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 can acquire naturally occurring minerals, in some cases, radioactive material; and 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 which 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.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Monitoring Violation

As part of the July through September monitoring period, samples were to have been collected from three schools in town. This notification is to inform the water consumers of Walpole that these samples were not collected until early October, which was outside of the timeframe that was mandated by the Department of Environmental Protection and the U.S. EPA. This action constitutes a monitoring violation, which requires public notification, as specified in 310 CMR: 22:16 Massachusetts Drinking Water Regulations.

To achieve and maintain compliance with the monitoring requirements, the Walpole Water Department will collect the required samples as specified and in accordance with the DEP-approved schedule.

Questions regarding this notice should be directed to Rick Mattson, Superintendent of Sewer and Water, at (508) 660-7309.

Lead in Drinking Water

During June, July, August and September, the Water Department collected a round of water samples and had them analyzed for lead and copper. Of the 62 samples that were collected, only seven exceeded the lead Action Level of 15 ppb (parts per billion). Since the lead value that was recorded at the 90th percentile exceeded the 15-ppb level, a violation of a corrosion control treatment technique occurred and, as a result, a public education program was implemented by the Walpole Water Department. In addition to this program, we are working with the Massachusetts Department of Environmental Protection and our consultants to improve this situation. In the interim, to reduce the lead levels, the pH has been adjusted to better control corrosion. Water quality monitoring will also be performed to check the effectiveness of this treatment technique and water treatment will continue in accordance with established regulations. 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 homes plumbing. Infants and children who drink water that contains 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 you are concerned about lead levels in your home's water, you may wish to have your water tested. To reduce lead content, flush your tap for 30 seconds to 2 minutes before using tap water. For more information call the Safe Drinking water Hotline at (800) 426-4791.

Table 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 which 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.

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.

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 contamination.

MFL (Million Fibers per liter): Measurement of the amount of fibrous

material in one liter of sample.

NA: Not applicable

ND: Not detected

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.

What's In My Water?

Over the course of this year, the Walpole Water Department conducted more than 400 water quality tests looking for bacteria, nitrates, organics and other contaminants such as radionuclides and total trihalomethanes. We have compiled the table below to show what substances were detected in our drinking water during 2005. With the exception of lead in some homes, all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA. Nonetheless, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha emitters (pCi/L)	2005	15	0	1.5	ND-1.5	No	Erosion of natural deposits
Asbestos (MFL)	2005	7	7	2.0	NA	No	Decay of asbestos cement water mains; Erosion of natural deposits
Benzene (ppb)	2005	5	0	0.7	ND-0.7	No	Discharge from factories; Leaching from gas storage tanks and landfills
Beta/photon emitters (pCi/L) ¹	2005	50	0	35.0	11.0-35.0	No	Decay of natural and manmade deposits
Chlorine (ppm)	2005	(4)	(4)	0.79	ND-0.79	No	Water additive used to control microbes
Combined radium (pCi/L)	2005	5	0	1.3	ND-1.3	No	Erosion of natural deposits
Fluoride (ppm)	2005	4	4	1.58	ND-1.58	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
HAAs (Haloacetic Acids) (ppb) ²	2005	60	NA	17.35	ND-42.1	No	By-product of drinking water disinfection
Nitrate (ppm)	2005	10	10	0.86	0.39-0.86	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2003	4	4	0.13	ND-0.13	No	Herbicide runoff
TTHMs [Total Trihalomethanes] (ppb) ²	2005	80	NA	33.55	27-46.5	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from 62 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	1.3	0.70	1	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2005	15	0	18.0	7	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES³

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2005	10.0	1.5-10.0	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2005	2.4	0.9-2.4	By-product of drinking water disinfection
Chloroform (ppb)	2005	24.0	0.7-24.0	By-product of drinking water disinfection
Sodium (ppm) ⁴	2004	45	19-45	Erosion of natural deposits and road de-icing agents

¹ The MCL for beta/photon emitters is written as 4 mrem/year. The EPA considers 50 pCi/L as the level of concern for beta emitters.

² Amount detected is the highest running annual average.

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

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