

AGAWAM'S AQUA ALMANAC - 2008

The Agawam Department of Public Works is pleased to submit this Water Quality Report (Consumer Confidence Report) for 2008. This is our eleventh annual report to you advising of the quality of your tap water and related health issues as well as water system improvements and our future plans. It is also the last report I will prepare as I will be retiring on July 14, 2009. I wish to take this opportunity to thank the citizens of Agawam for the privilege of serving them first as Town Engineer and then as Superintendent of Public Works over the past 42 years. I am proud of the contribution the Department has made to the betterment of Agawam during these years.

John P. Stone

Water Consumption and Rates

Agawam obtains its water from the Springfield Water and Sewer Commission but operates its own system for the distribution of water within the community. This system of 149 miles of pipe ranging in diameter from 4" to 16" services 10,812 accounts and supplied **1,451,600,000** gallons of water in 2008. Residential water use accounted for 58.6% of total usage while industrial use rose to 26.9% of total use due mainly to increased electric generation at Berkshire Power.

As we discussed last year, the Mass Dept. of Environmental Protection is requiring that all water systems take steps, beginning as early as 2010, to reach the required 65 residential gallons per capita per day standard. This residential usage includes water used for lawn irrigation. In Agawam the average residence has 2.5 people which, at the 65 gallon rate translates to 4,000 cubic feet (cf) in a 6-month billing cycle. To encourage the necessary reduction in water consumption we have adopted a new rate structure to be effective July 1, 2009. There will be no increase for residential users in the rate charged for this first 4,000 cubic feet of water. Residential usage above 4,000 cf and all other water use including lawn irrigation would be charged at a rate of \$1.90 per 100 cf. We believe this rate structure will aid in meeting the required reduction in residential and non-essential outdoor water use and provide funds for essential water system improvements without overburdening the average family.



To the left are a few water saving devices available at your local hardware or garden supply vendor. In addition the EPA has established a "WaterSense" program whose aim is to decrease indoor and outdoor non-agricultural water use through high efficiency products and simple water-saving practices. "WaterSense" labeled products, which include toilets and faucets, makes it easy for consumers to make product choices that use less water with no sacrifice on quality or performance. More information is available at www.epa.gov/watersense.

The Public Works Department also runs a rain barrel distribution program every Spring and distributes water savings devices, as funds allow, at the local Earth Day celebration.

On Tap for Agawam Water

The Department has proposed four major water main improvement projects recommended in our 2007 Water Distribution Evaluation in the City's Five Year Capital Improvement Program. These include new 12" mains in Main Street north of Route 57 and Elm-Silver Streets, an 8" main in South Street and a 24" main in North Westfield Street north of North Street. Funding would be provided by the rate adjustment discussed above.

This past year we completed the link from the Liswell Hill Water Pump service area to the Sunset Terrace neighborhood. This connection allowed us to eliminate a 30 year old pump station that had served the neighborhood but required a \$150,000 refurbishing. During the winters the Department is continuing with the multi-year program to convert metered account to radio-read capabilities. As of this date the area bounded by Main Street and River Road has been completed as have some neighborhoods along North Westfield Street and in North Agawam as well as accounts on Rowley, Cooper and Springfield Streets.

Further information about the Department of Public Works may be found at the City's Web site at Agawam.ma.us.

Source Water Assessment

The Massachusetts Department of Environmental Protection (DEP) has conducted a Source Water Assessment for drinking water produced by the Springfield Water and Sewer Commission and has assigned a **system susceptibility ranking of moderate**. The complete assessment and protection report is available at the Agawam Dept. of Public Works and online at www.mass.gov/dep/drinking/swapreps.htm. For more information call Chris Golba at (413) 821-0600. The drinking water originates from a surface water supply, the Cobble Mountain Reservoir, located in Western Massachusetts. The Borden Brook Reservoir, a smaller surface water supply that feeds into Cobble Mountain Reservoir, contributes to the system's combined water supply capacity of 25 billion gallons. There is no commercial industry within the watershed boundaries and population density is low. Only limited farming and grazing are practiced in the area. Boating, swimming, hunting, and fishing are forbidden in and around the reservoir areas to further protect the water supply. From the reservoirs the water flows to a treatment plant in Westfield where it is filtered, treated to prevent corrosion of plumbing, and disinfected. No fluoride is added to the water. The water then flows to storage tanks on Provin Mountain in Agawam and then through large transmission mains passing through our community to Springfield.

Agawam Dept. of Public Works — Water Division (PWS ID# 10050000)

In the Town of Agawam the responsibility for the operation of the public water system lies with the Department of Public Works whose office has recently relocated to the renovated facility at 1000 Suffield Street. The department is managed by John Stone, Superintendent of Public Works, while Christopher Golba, Deputy Superintendent, oversees the water operations. The Department can be reached between the hours of 8:30 A.M. and 4:30 P.M. on regular work days at (413) 821-0600. Emergency water problems at all other times can be reported to the police dispatcher at (413) 786-4767 or 821-0606 who will contact appropriate water service personnel.

While the Department does not have a formalized means of securing public input, questions and concerns may be voiced at any time by calling the staff at the above number. Should you not be satisfied with our response, the Mayor's office may be contacted at 786-0400 ext. 200. The Town Council holds regular meetings on the first and third Mondays of each month at the Agawam Middle School. At a "citizen speak time" before each meeting, citizens can voice concerns relative to the water quality or operations. It is suggested that you inform the council clerk in advance of your intention to speak by calling 786-0400 ext. 233 during the morning on weekdays. You may also contact the Department of Public Works by e-mail at dpw.@agawam.ma.us.

Water Quality

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 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 can result from urban storm 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 which can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

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

Agawam collects 30 water samples each month from locations throughout Town and tests these samples for coliform bacteria. Again in 2007 no positive samples were found.

In accordance with the Long Term 2 Enhanced Surface Water Treatment Rule monitoring for Cryptosporidium began in 2006. The results indicate that no further treatment is required, other than the treatment already provided, which includes filtration. Tests on July 10, 2007 and August 14, 2007 both yielded results of 0.1 oocysts per liter. Please see further discussion about Cryptosporidium under Health Information.

Analysis of Agawam's Water

Water samples are analyzed daily by state-certified laboratories to insure that the water supplied is potable and meets all government standards. The water is monitored at the reservoir, the filter plant, the storage tanks and throughout the distribution system. The data on the next page represents finished water in the distribution system during calendar year 2008.

Contaminant	Major Sources in Drinking Water	Violation	Ideal Goal (MCLG)	Maximum Contaminant Level (MCL)	Annual Running Average	Range Detected at Individual Sampling Sites
<i>Organics</i>						
TTHMs (ppb) (Total Trihalomethanes)	By-product of drinking water chlorination	No	N/A	80 (annual running average)	55.3	38.1-93
IDSE-TTHMs (ppb)	By-product of drinking water chlorination	No	N/A	N/A	N/A	22.4-87.3
HAA5s (ppb) (Total Haloacetic Acids)	By-product of drinking water chlorination	No	N/A	60 (annual running average)	34	23.1-42
IDSE - HAA5s (ppb)	By-product of drinking water chlorination	No	N/A	N/A	N/A	0-81.3
<i>Inorganics</i>					90th Percentile	Sampling Sites Exceeding the Action Level
Copper (ppm)	Corrosion of household plumbing systems	No	1.3	AL = 1.3	0.073	0 out of 30
Lead (ppb)	Corrosion of household plumbing systems	No	0	AL = 15.0	0.0	0 out of 30
<i>Physical Indicator</i>					Highest Single Measurement Detected	Lowest Monthly Percent
Turbidity (NTU) Rapid Sand Filtration**	Soil runoff	No	N/A	TT	0.35	99.7%
Turbidity (NTU) Slow Sand Filtration**	Soil runoff	No	N/A	TT	0.20	100%
<i>Unregulated***</i>					Single Test	
Sodium (ppm)	Natural deposits	No	ORSG 20	None	12.0	N/A

KEY TO TABLE

Turbidity 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.

**Rapid Sand Filtration: The turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed a maximum of 1.0 NTU in any single measurement.

**Slow Sand Filtration: The turbidity level of the filtered water shall be less than or equal to 1.0 NTU in 95% of the measurements taken each month and shall not exceed a maximum of 5.0 NTU in any single measurement.

***Unregulated contaminants are those for which EPA has not published drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA with determining their occurrence in drinking water and whether future regulation is warranted.

Definitions

▶ **AL** = Action Level. The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow. ▶ **IDSE** = Initial Distribution System Evaluation. ▶ **MCL** = Maximum Contaminant Level. The highest level of a contaminant in drinking water. MCLs are set as close to 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 (ex. Chlorine, chloramines, chlorine dioxide). ▶ **MRDLG** = Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. ▶ **N/A** = not applicable ▶ **NTU** = Nephelometric Turbidity Units. A numerical value indicating the cloudiness of water. ▶ **ORSG**=Mass. Office of Research and Standards Guideline. The concentration of a chemical in drinking water at or below which adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded it serves as an indicator of the potential need for further action.

▶ **ppb** = parts per billion ▶ **ppm** = parts per million ▶ **90th Percentile**: Out of every 10 homes, 9 were at or below this level.

▶ **TT** = Treatment Technique. A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

We wish to remind residents that pollution of their drinking water can come from their own home Typically this may occur when a hose end is connected to a chemical sprayer or submerged in a container and there is a drop in water pressure due to a fire or main break and the substance is sucked back through the hose into the water pipes. We recommend the installation of a low cost hose bid vacuum breaker for all hose connections. This item can be purchased at a hardware or plumbing supply store.

Health Information

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's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. People whose immune systems may be compromised because of chemotherapy, organ transplants, or HIV/Aids or other immune 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 (1-800-426-4791).

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. The Agawam Department of Public Works is responsible for providing high quality drinking water, but cannot control the variety of material 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 your 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 <http://www.epa.gov/safewater/lead>.

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring indicates the presence of these organisms in the Borden Brook and Cobble Mountain reservoirs' water. Current test methods do not allow it to be determined if the organisms are dead or if they are capable of causing health problems.

Most healthy individuals are able to overcome health problems associated with Cryptosporidium within a few weeks. However, immuno-compromised people have more difficulties and are at greater risk of developing severe, life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to prevent infection. Cryptosporidium must be ingested for it to cause health problems, and may be passed through other means than drinking water. Symptoms of infection include nausea, diarrhea and abdominal cramps.