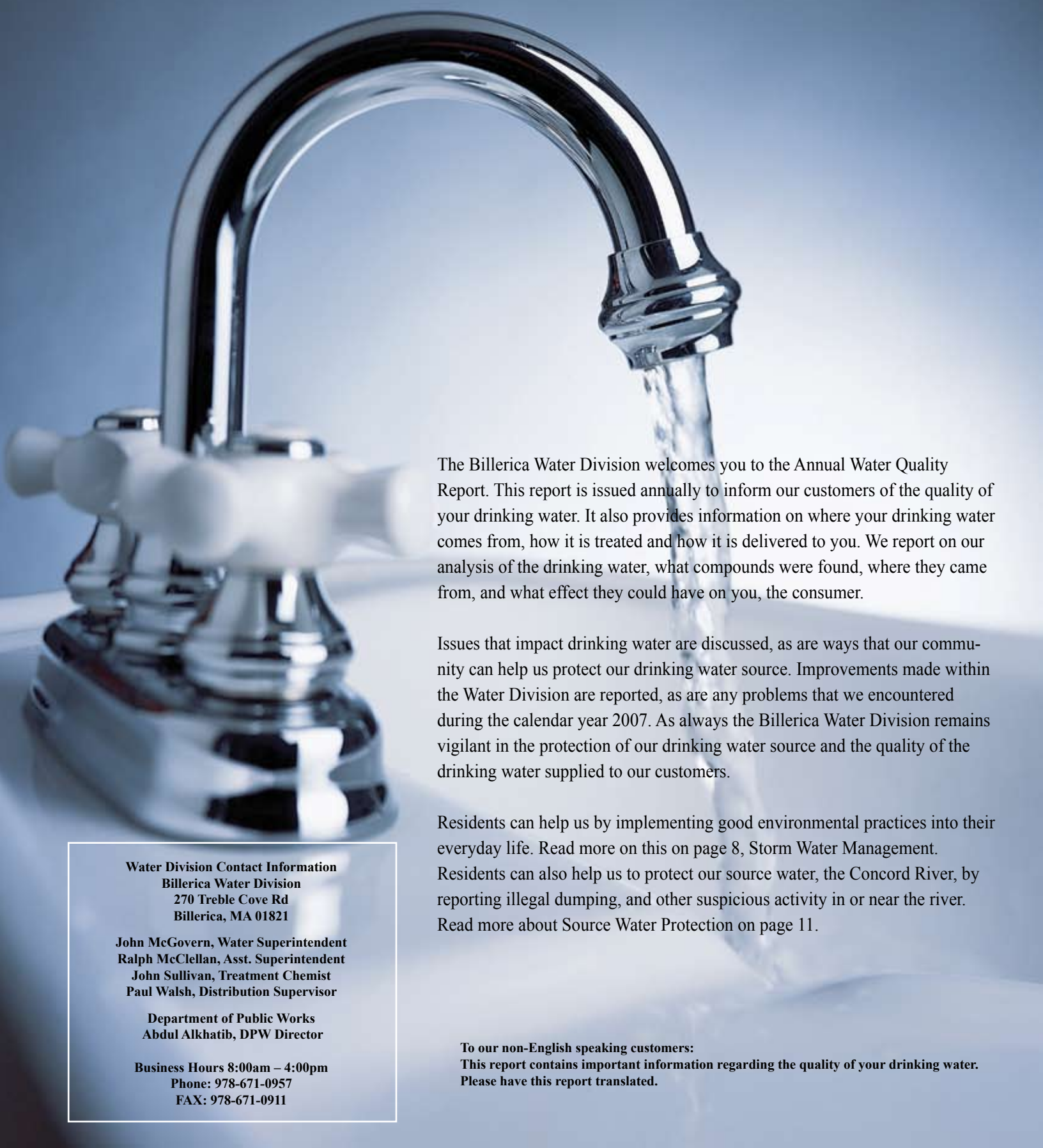

Town of Billerica Department of Public Works, Water Division

2007 Water Quality Report (January 1, 2007 – December 31, 2007)



The Billerica Water Division welcomes you to the Annual Water Quality Report. This report is issued annually to inform our customers of the quality of your drinking water. It also provides information on where your drinking water comes from, how it is treated and how it is delivered to you. We report on our analysis of the drinking water, what compounds were found, where they came from, and what effect they could have on you, the consumer.

Issues that impact drinking water are discussed, as are ways that our community can help us protect our drinking water source. Improvements made within the Water Division are reported, as are any problems that we encountered during the calendar year 2007. As always the Billerica Water Division remains vigilant in the protection of our drinking water source and the quality of the drinking water supplied to our customers.

Residents can help us by implementing good environmental practices into their everyday life. Read more on this on page 8, Storm Water Management. Residents can also help us to protect our source water, the Concord River, by reporting illegal dumping, and other suspicious activity in or near the river. Read more about Source Water Protection on page 11.

Water Division Contact Information
Billerica Water Division
270 Treble Cove Rd
Billerica, MA 01821

John McGovern, Water Superintendent
Ralph McClellan, Asst. Superintendent
John Sullivan, Treatment Chemist
Paul Walsh, Distribution Supervisor

Department of Public Works
Abdul Alkhatib, DPW Director

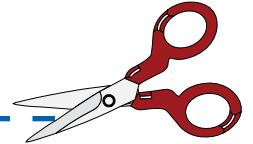
Business Hours 8:00am – 4:00pm
Phone: 978-671-0957
FAX: 978-671-0911

To our non-English speaking customers:
This report contains important information regarding the quality of your drinking water.
Please have this report translated.

Water Conservation Update

As the demand for water increases with growth and our infrastructure ages, many water suppliers are facing water supply challenges. One of these challenges is the amount of water that public water suppliers are allowed to withdraw from their water sources. The State Department of Environmental Protection regulates how much water is withdrawn and issues withdrawal permits for this use. Many water suppliers, including the Town of Billerica, are finding themselves very close to their withdrawal limits. The need to use our water efficiently is becoming critical to the long term health and viability of both our water supplies and natural resources.

Below is an outline of the four stages of Water Conservation, full text of the By-Laws is available on the Water Division link of the Town of Billerica's web site located at www.town.billerica.ma.us



----- *Clip and save for future reference* -----

Stage I – Effective May 1 – October 1 Annually *Voluntary* Water Conservation

Outside water usage limited to odd – even allocation program. Odd numbered street addresses may water on odd numbered calendar days and even numbered addresses may water on even numbered calendar days.

Stage II – Mandatory Water Conservation

Outside water usage limited to odd – even allocation program.

	Residential	Commercial/Industrial
First Violation	Written Citation	Written Citation
Second Violation	\$50.00	\$100.00
Subsequent Violations	\$100.00	\$200.00

Stage III – Mandatory Water Conservation

Lawn sprinklers, irrigation systems, soakers and unattended hoses forbidden. Outside water usage restricted to use of hand held hose for no more than one (1) hour during off-peak hours as determined by the DPW Director.

	Residential	Commercial/Industrial
First Violation	Written Citation	Written Citation
Subsequent Violations	– termination of service plus costs of termination and restoration.	

Stage IV – Total Mandatory Water Conservation

All outside water use is forbidden.

	Residential	Commercial/Industrial
First Violation	Written Citation	Written Violation
Subsequent Violations	– termination of service plus costs of termination and restoration.	

With a little effort and a little common sense we can all save water!

Create a drought tolerant/ low water use landscaping – save water and money. For more information on drought tolerant / low water use gardening and plants visit these web sites:

Water Conservation Information

The topic of Water Conservation remains in the forefront both with the Public Water Supply industry and amongst citizens across the globe.

While it is obvious that water conservation is needed in areas suffering from drought, it often is less apparent to areas that seem to have a plentiful supply of water. Water Suppliers are limited to the amount of water they can withdraw from their water source(s). This amount is dictated by State and sometimes Federal Government Agencies. The Town of Billerica is regulated by the Massachusetts Department of Environmental Protection (DEP). This agency issues a Withdrawal Permit, which states how much water the Town can withdraw from the Concord River, which is our water source.

The amount of water which can be withdrawn is reached after considering the affect this will have on the water source and associated watersheds. This is done to protect the integrity of the water source and viability of both our water supplies and natural resources. The Town of Billerica is permitted to withdraw 1,949,100,000 gallons of water per year.

The Town of Billerica enacted Water Conservation Bylaws in 2006 to help protect our water source and to educate our customers about the importance of water conservation.

The Massachusetts DEP limits water use to 65 gallons per person per day (per capita per day). Currently in Billerica, the Residential gallons per person per capita day is 73.45. Obviously we have some work to do to get everyone on-board with water conservation.

In 2007 the Town of Billerica, Water Division withdrew 1,751,827,000 gallons of water, from the Concord River. That is almost two billion gallons of water! That is not only how much water was withdrawn from the Concord River, but also how much water was treated to become drinking water. It takes an enormous amount of energy to pump, treat and deliver drinking water to our customers. It is also a very expensive process.



If we can conserve water and meet the per capita day of 65 gallons per person we will save:

$$\begin{aligned} & 73.45 \text{ per capita day used} \\ & - \underline{65 \text{ per capita day goal}} \\ & = 8.45 \text{ gls per day saved} \\ & \times \underline{365 \text{ days per year}} \\ & = \underline{3084 \text{ gls per person/year}} \end{aligned}$$

$$\begin{aligned} & 3084 \text{ gls per person/year} \\ & \times \underline{38,818 \text{ residents}} \\ & = \underline{119,714,712 \text{ Gallons of Water Saved per Year!}} \\ & \text{Yes that 's } \underline{119 \text{ MILLION GALLONS}} \end{aligned}$$

As the numbers show just by reducing our daily water use by 8 gallons per person per day, has a tremendous impact. We reduce how much water that is withdrawn from the river, we reduce how much water needs to be treated (saving thousands of dollars annually), but most importantly we reduce how much water is WASTED!

Additionally, we need to make water conservation an everyday habit in our lives. As our population grows, so does our demand for clean drinking water. Without water conservation practices being implemented, the Town of Billerica could soon reach our limit on permitted water withdrawal.

For more information on water conservation please visit the following web sites:

Billerica Department of Public Works www.billericadpw.org
American Water Works Association www.awwa.org/waterwiser/
USEPA Safe Drinking Water Act Hotline www.epa.gov/ogwdw/hotline/index.html

Billerica Water Division Water Quality Summary – Public Water Supplier ID # 3031000

The following tables list all of the compounds detected in drinking water through the 2007 calendar year. Each year the Water Division conducts extensive testing on drinking water as required by both Federal and State regulations. After the tables you will find the abbreviation definitions and notes.

REGULATED SUBSTANCES

Substance Unit of Measure	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW HIGH		TYPICAL SOURCE
Chlorine (ppm)	4	4	2.0	1.5	2.0	Water additive used to control microbes
Fluoride (ppm)	4	4	1.3	.8	1.3	Erosion of natural deposits; water additive, which promotes strong teeth, discharge from fertilizer and aluminum factories.
Nitrate ppm	10	10	1.6	.20	1.6	Runoff from fertilizer use; leaching from septic tanks sewage, erosion of natural deposits.
Bromate ppm	10	0	.015	ND	.015	By-product of drinking water disinfection
Total Trihalomethanes TTHMs (ppb)	80	80	34.5	22.6	34.5	By-product of drinking water disinfection
Haloacetic Acids HAA5s (ppb)	60	60	18	6.3	18	By-product of drinking water disinfection
Radionuclides* pCi/L	15	NA	1.6	NA		Erosion of natural deposits.
Total Organic Carbon	TT Annual Average % Removed = 59%					Naturally present in the environment.
	Date(s) Collected	90th Percentile	Action Level	# of Sites Sampled	# of Sites Above Action Level	
Lead ppb	6/07	2	15	30	0	Corrosion of household plumbing, erosion of natural deposits.
Copper ppb	6/07	45	1300	30	0	Corrosion of household plumbing, erosion of natural deposits; leaching from wood preservatives
Turbidity Daily Compliance (NTU)	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Monthly Compliance*		
	1	100%	0.12	at least 95%		Soil runoff.

* Monthly turbidity compliance is related to specific treatment technique (TT). Our system filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.

Definitions and Notes

ppm = parts per million

ppb = parts per billion

NTU = Nephelometric Turbidity Units

pCi/l = picocuries per liter (a measure of radioactivity)

ND = Not Detected

NA = Not Applicable

TT = Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.

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

ORSG = Massachusetts Office of Research and Standards Guideline. This is 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.

MCL = Maximum Contaminant Level, the highest level of contaminant that is allowed 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 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. The addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG = Maximum Residual Disinfectant Level Goal, the level of a disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of disinfection to control microbial contaminants.

SMCL = Secondary Maximum Contaminant Level, are standards developed to protect the aesthetic qualities of drinking water and are not health based.

Billerica Water Division Water Quality Data – Public Water Supplier ID # 3031000

During the Third Quarter of 2007, we failed to report sample results to the DEP in a timely manner, which is a Reporting Violation. The contaminants for which the violation occurred are listed in the table below, with the period during which the required sampling was conducted and when the reports were submitted to the DEP.

Contaminant Sampled	Monitoring Period	Date Sampling Conducted	Date Reports Received by WTF	Date Reports Sent to DEP
Trihalomethanes	3rd Quarter 2007	8/29/07	11/01/07	11/02/07
Haloacetic Acids	3rd Quarter 2007	8/29/07	11/01/07	11/02/07
Nitrate	3rd Quarter 2007	8/29/07	11/01/07	11/02/07
Nitrite	3rd Quarter 2007	8/29/07	11/01/07	11/02/07
Volatile Organic Compounds	3rd Quarter 2007	8/29/07	11/01/07	11/02/07

Sources of drinking water (both tap 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, can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, farming and mining.

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

Organic Chemical Contaminants, include synthetic and volatile organic chemicals that 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.

Unregulated Substances

	SMCL	ORSG	Amount Detected	Source(s) of Contaminant
Sulfate (ppm)	250		62	Natural sources.
Sodium (ppm)		20	56	Natural sources; runoff from use of salt on roadways; by-product of treatment process.

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.

Unregulated Volatile Organics

	MCLG	Range Detected		Source(s) of Contaminant
		Lowest	Highest	
Chloroform (ppb)	0	2	7	By-product of drinking water chlorination.
Bromodichloromethane (ppb)	0	3	9	By-product of drinking water chlorination.
Chlorodibromomethane (ppb)	0	2	10	By-product of drinking water chlorination.
Bromoform (ppb)	0	1	2	By-product of drinking water chlorination.

EPA has not established drinking water standards for Unregulated Contaminants and as such they do not have a MCL. The purpose of Unregulated Contaminant monitoring is to assist the EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Understanding the Language in this Report

Throughout this report you will find helpful definitions beneath the water analysis tables which will explain abbreviations found in this report. The word contaminant is used frequently in this report, this DOES NOT mean the water is contaminated, this term is used to describe the possibility of a contaminant being present in both source and drinking water. Any substance detected in the drinking water is listed in the analysis tables.

Town of Billerica Water Distribution System

Many people think of drinking water and immediately think of the Water Treatment Facility. Most people don't think about how drinking water is transported from the Treatment Facility to the water faucets in their home. The system that delivers drinking water to the customer is called the Water Distribution System.

Treated water is delivered through a series of pipes, called water mains, from the Treatment Facility to the Standpipes and then to the Service Connection at your home/business.



The Town of Billerica has 223.2 miles of water mains in its Water Distribution System.

The Water Distribution System has a total of 13,818 Service connections supplying water.

13,102 connections are Residential customers, 555 connections are Commercial customers, 120 Connections are Industrial customers and 41 are Municipal connections.

There were 85 water main breaks in the Distribution System during 2007. This was double the average of 40 breaks per year. There were 22 breaks in the month of December alone. Our employees did an outstanding job of locating and repairing these breaks as quickly as possible, and often in less than favorable conditions. The amount and location of these main breaks are indicative of the infrastructure of the Water Distribution System. We have begun to study and identify the problem areas within our Distribution System in order to plan improvements and repairs.

2007 was a very busy and productive year for the Billerica Water Division and the Water Distribution System.

As part of our Leak Detection Program, 115 miles of the Water Distribution System were surveyed for leaks. 16 leaks were detected in the system, which led to an estimated loss of 1,064,120 gallons of water. All of the leaks were repaired. The remainder of the System is scheduled to be surveyed in 2008.

A major water main replacement project got underway and outdated and undersized water mains were replaced.

In Pinehurst, 3,095 feet of 16 inch water main pipe from the Shawsheen River Bridge to just south of Chesterfield Ave was replaced. This installation replaced a 6 inch water main that dated back to 1913 and a 12 inch water main from 1949.

This was a troublesome section of water main that had frequent water breaks due to the deteriorating condition of the pipe.

1,500 feet of water main pipe from Adelman Rd. to Francis Wyman Rd. in Burlington was installed. This also allowed the Town of Billerica to establish a water interconnection with the Town of Burlington for the use in case of emergency. This installation was fitted with fire hydrants to allow the use of portable pumps.

A "Loop" in the Distribution System is best described as connecting two or more dead end water mains. This improves water flow and quality.

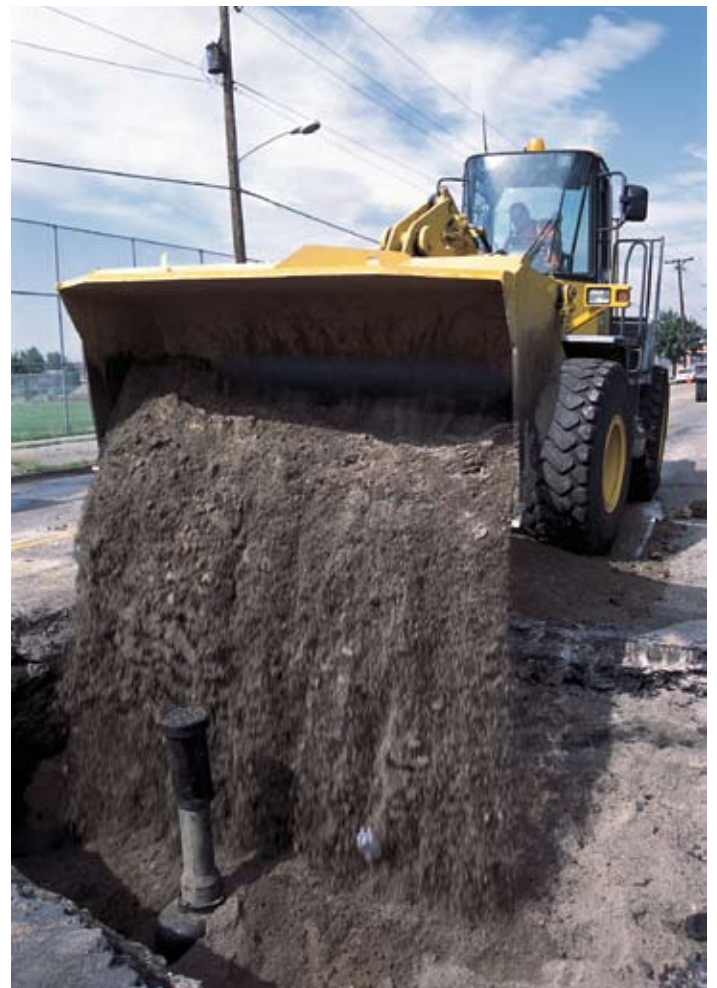
During 2007, several areas of the distribution system had water mains installed to achieve a "Loop".

An 8 inch pipe was installed to Loop the water main on Hardnen Rd. to the water main on Boston Rd.

A dead end water main on Harvard Rd. was looped to connect with the water main on Gray St.

An 8 inch main was looped on Carline Dr. through the Kennedy School property to Biscayne Dr.

The intersection of Middlesex Turnpike and Concord Rd. was re-plumbed for future connections to a forced main at the river crossing.



Back Flow/Cross Connection Control Program

Consumers can expect the water provided to them by their water supplier to be safe and healthful. Water suppliers across the continent spend millions of dollars to treat water before it is delivered to the consumer. However, many consumers are not aware that the water supplier also expends great effort to protect the water from the possibility of contamination or pollution while it flows through the distribution system. It is possible for this to occur when a water supply line is connected to equipment containing non-potable (unfit to drink) substance. A make-up water line may be connected to a sink filled with acid, or a hose may drop into a bucket of cleaning solution. These connections, called **Cross Connections**, whether they are permanent or temporary, would be dangerous if no protective measures were taken.



Water distribution systems are designed with the intention of water flowing in a certain direction - from the distribution system to the consumer. However, hydraulic conditions within the system may deviate from the “normal” conditions, causing the water to flow in the opposite direction. Therefore it is possible (and common) for the water to flow in the opposite direction in an unprotected system. This is called **Backflow**.

Backflow occurs when the pressure in the distribution system drops, siphoning water from the consumer’s system into the distribution system. This would also siphon any substance which may be in contact with the water system through a cross connection. This type of backflow is called Backsiphonage and may occur when there is unusually high use of water or undersized piping in the area.

For example, during fire fighting, or when a main water line breaks, water is “sucked” to the point of high usage, possibly drawing non-potable substances with it, filling the water line with these substances. Back siphonage may occur through cross-connections such as a hose from a maintenance sink, in a mop bucket, in a swimming pool or below the rim water inlet to a tank containing a toxic solution.

Because of these potential dangers to the water consumer it is necessary to control cross connections. There are several types of mechanical assemblies which serve as Backflow Preventers. There are different types of backflow preventers designed to work under back siphonage or back pressure conditions. Most of these backflow preventers have been tested using stringent specifications in the laboratory and in the field. Approved backflow preventers are extremely dependable.

Federal law requires water suppliers to protect their water systems from contamination or pollution by cross connections. To do this, water suppliers diligently conduct surveys of various facilities on their systems. Through these surveys the water supplier determines which type of back flow protection is necessary to protect the water system.

The consumer must be aware of cross connections and prevent them, or protect such connections with the appropriate backflow preventer. These backflow preventers must be tested at least once a year, to ensure that they are performing properly in preventing backflow.



With cooperation, a comprehensive cross connection control program keeps a treated water distribution system from objectionable impurities and health hazards.

For more information on the Billerica Water Division’s Backflow/Cross Connection Program please call 978-671-0957

Tips For Reducing Stormwater Pollution

The Town of Billerica performs many activities that are critical to keeping stormwater clean. Street sweepers pick up sand and winter debris from the streets so that it won't be washed into storm drains. Storm drains have catch basins, some with sumps to trap heavy particles and hoods to trap oils, that must be cleaned out regularly by the Billerica Highway Department to keep the storm drains clear. Whatever flows down a storm drain will come out in a nearby water body.

Tips for taking care of storm drains include:

- *Never put anything down a storm drain, including pet waste, motor oil, paint, litter, leaves, or sand*
- *Don't block storm drains with refuse or debris.*

Cleaning up stormwater pollution is a task that the whole community can take part in. There are many things that residents can do to clean up stormwater quality. Lawns can contribute stormwater pollutants through fertilizers, pesticides, and herbicides. Steps that homeowners can take to reduce stormwater pollution from lawns include:



- *Use fertilizer, pesticides, and herbicides sparingly*
- *Try using organic lawn care methods*
- *Mow 2 to 3 inches high to encourage dense growth and deter weeds*
- *Mulch lawn clippings and leaves*
- *Do not over-water your lawn*
- *Reduce lawn size by planting rock gardens, shrubs and trees*
- *Replant bare areas to stop erosion*
- *Maintain native vegetation along streams and lake fronts.*

Cars can pollute stormwater with gas, oil, antifreeze, metals, and detergents. Steps that car owners can take to reduce stormwater pollution from cars include:

- *Keep your car well maintained to prevent fluid leaks*
- *Recycle motor oil, antifreeze, tires, and batteries*
- *Use a commercial car wash or wash your car on the lawn using small amounts of low-phosphate detergents.*



Other tips to help clean up stormwater include:

- *Pick up after pets and dispose of droppings in the toilet or trash*
- *Aim roof downspouts away from paved surfaces or into a rain barrel*
- *Dispose of paint, oil, and other household chemicals at a local hazardous waste collection day*
- *Don't litter – instead recycle paper, cardboard, cans, plastic and glass*
- *Start stream teams to help care for neighborhood streams*
- *Coordinate neighborhood storm drain stenciling activities*
- *Support community efforts to keep stormwater clean.*

Keeping stormwater clean and complying with the Stormwater Phase II regulations is a community-wide effort. Cleaning up pollutants on the land and taking good care of storm drains results in cleaner stormwater, and cleaner stormwater means cleaner water for drinking, swimming, fishing, boating and wildlife.

For further information please visit the Town of Billerica Department of Public Works home page at <http://www.billericadpw.org> and follow the links to Stormwater Management.

New Stormwater Management By-Laws

Stormwater is one of the most difficult sources of water pollution to control and is a major cause of water problems in our lakes, streams, and rivers. Clean water is essential for drinking, swimming, fishing, boating and wildlife. It is much more effective to minimize the pollution that enters our water bodies rather than removing it after the fact. For these reasons and more; Billerica and many communities throughout the country have been required by the U.S. Environmental Protection Agency (EPA) to develop local laws to control stormwater runoff as part of their Stormwater Management Program. The Town of Billerica has developed a Stormwater Management By-law to provide reasonable control of stormwater runoff quantity and quality to protect local water resources from degradation. A second by-law, the By-law Governing Discharges to the Municipal Storm Sewer System, will provide additional protection by prohibiting connections to the storm sewer system that could introduce pollutants into Billerica's water bodies. The new Stormwater Management and Discharge By-Laws, adopted at the Fall 2007 Town Meeting, will help preserve Billerica's natural resources and protect the environment.



Background

Land development and land use conversion projects often transform the natural landscape from forests and fields into areas of impervious cover, permanently altering the natural cycling of water and increasing stormwater runoff and the potential for sand, oil, and other pollution to flow to rivers, streams, and lakes. Impervious areas are hard surfaces such as rooftops, driveways, streets, and parking lots. Increased runoff often increases flooding, stream channel erosion, and sediment transport, and decreases groundwater recharge.

The impacts of construction site and post development stormwater runoff can adversely affect public safety, public and private property, surface water, drinking water supplies, groundwater resources, recreation, aquatic habitats, and other uses of lands and waters.

Many of these negative effects can be controlled through careful site planning and the application of both structural and non structural stormwater Best Management Practices (BMPs).

Illicit discharges and illegal dumping into the storm sewer system can lead to pollution flowing directly into the rivers, streams and lakes in and around Billerica. A by-law to clearly make such activities illegal gives the Town a tool to ensure that pollution does not flow into the storm sewer system promoting cleaner waters and land now and into the future.

What Will The New Stormwater Management By-Laws Do?

The Stormwater Management By-law will regulate post-construction stormwater runoff for both new and re-development projects, and erosion and sediment control and stormwater runoff for construction sites. This By-law will minimize damage to public and private property and infrastructure, safeguard public health and safety, and protect water and aquatic resources and the environment.

Anyone proposing a project that meets the By-law applicability will be required to obtain a Stormwater Management Permit from the Board of Health.

The proposed new By-law is not intended to limit new development projects. Rather the By-law sets clear stormwater management goals, standards, and design criteria to reduce the negative impacts of development and construction projects.

What Will The New By-Law Governing Discharges To The Municipal Storm Sewer System Do?

The By-law governing discharges will allow the Town to eliminate and prevent pollution from entering the Town's storm sewer system. It will give the Town a tool to use to protect the health and safety of the residents, and promote cleaner water for drinking, recreation, and the aesthetic value it to the community.

Frequently Asked Questions



What are those big tanks on Bear Hill and beside the Billerica Mall?

The water tanks on Boston Rd. are called Standpipes. These stand pipes are used for storage as well as maintaining the water pressure in the Distribution System. In some areas of Billerica, this pressure may be as high as 120 pounds persquare inch (psi). If this pressure presents a problem in your home, you may hire a plumber at your expense to install a pressure reducing valve after your meter.

Is it safe to drink tap water or should I drink bottled water?

The Town of Billerica's drinking water meets and/or exceeds all State and Federal standards. Please read on for more information.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water suppliers. 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 Safe Drinking Water Hotline at (800-426-4791).

What is the Hardness of the drinking water?

The hardness of the drinking water varies but on average test results show it to be 40-75 milligrams per liter (mg/L) or 4.3 grains per gallon.

What is the Sodium content in the drinking water?

Sodium levels vary considerably during the year. The Sodium level in our drinking water during the First Quarter of 2007 was 56 milligrams per liter (mg/L). Although Sodium does not have a Maximum Contaminant Level (MCL), the Commonwealth of Massachusetts does have a guideline of 20 mg/L for sensitive individuals such as those on very salt restricted diets.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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. EPA/CDC guidelines on appropriate means to lessen the risks of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline (1-800-426-4791).

Where Does Our Drinking Water Come From?

The Town of Billerica, Water Division uses water from the Concord River to provide drinking water. This source is considered a surface water. The watershed above our point of intake is over 400 square miles and lies in all or part of 27 cities and towns in Massachusetts. Within that watershed area there are several land use types that have been identified as potential sources of contamination in the source water.

Agricultural Land Uses include:

Fertilizer Storage or Use, Landscaping, Nurseries, Pesticide Storage or Use.

Commercial Land Uses include:

Airports, Service Stations, Bus & Truck Terminals, Dry Cleaners, Medical Facilities, Printing Shops, and Research Laboratories.

Industrial Land Uses include:

Electronic Manufacturers, Hazardous Materials Storage, and Machine/Metal Working Shops.

Residential Land Uses include:

Fuel Storage, Lawn Care/Gardens, and Septic Systems.

Miscellaneous Land Uses include:

Above Ground Storage Tanks, Oil or Hazardous Material Sites, Large, Small and Very Small Hazardous Waste Generators, Industrial Wastewater Treatment Facilities and Transportation Corridors.

Source Water Assessment Report (SWAP) What is SWAP?

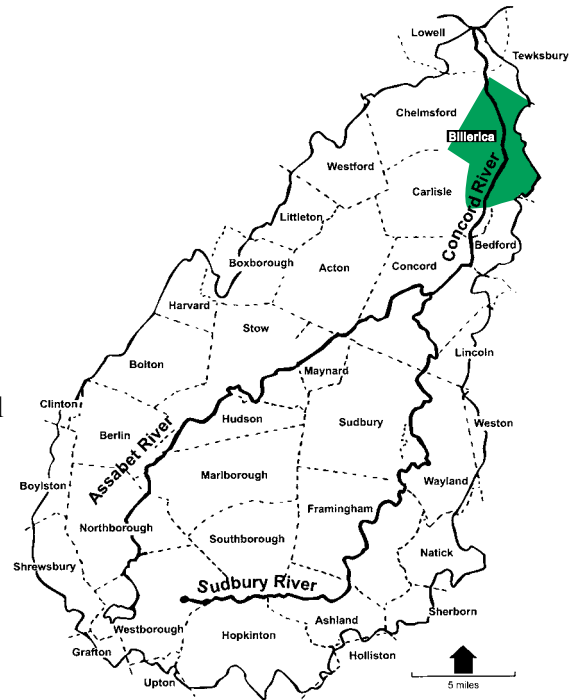
The Source Water Assessment and Protection Program (SWAP), established under the Federal Safe Drinking Water Act, it requires every state to:

Inventory land uses within the recharge areas of all public water supply sources; assess the susceptibility of drinking water sources to contamination from these land uses; and publicize the results to provide support for improved protection.

Is My Water Treated?

Our water system makes every effort to provide you with safe drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants. We add Chloramines to protect you against microbial contaminants, and Fluoride to aid in dental health and hygiene. We filter the water to remove small particles and organisms such as sediment, algae and bacteria, and volatile organic contaminants. We chemically treat the water to reduce lead and copper concentrations and to reduce levels of iron and manganese.

The water quality of our system is constantly monitored by us and the DEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required. We are pleased to report that the quality of our water meets all Federal and State standards.



Fire Hydrants are used to supply water for fire protection and to maintain water quality in the water distribution system. Only Water Division and Fire Department personnel are authorized to operate fire hydrants. If you see an unauthorized person (s) operating a fire hydrant please contact the Water Division at 978-671-0957.

Why is my water brown?

Brown water is generally a combination of Iron and Manganese (minerals that are naturally present in water), these minerals become oxidized when they are mixed with chlorine (which is added to the water for disinfection). This can result in discolored laundry and plumbing fixtures. Brown water can also occur when there has been a fire, a water main break or other disruption in the water distribution system. The Water Division has a rust reducing product for use in the laundry. This product is available at the Water Treatment Facility located at 270 Treble Cove Rd. and also at the Water Billing Office at the Billerica Town Hall located at 365 Boston Rd.

Water Conservation Kits

The Water Division has Water Conservation Kits available to town residents to help you reduce your water use both inside and outside of your home.

The **Indoor Conservation Kit** is for use inside the home and contains a low flow shower head, a low flow aerator for the sink and leak detection tablets to help find leaks in the toilet.

The **Outdoor Conservation Kit** has a multiple function spray nozzle for your garden hose, new hose unions, extra washers, and a rain cup to help you measure rainfall.

These kits are available at the Water Treatment Facility at 270 Treble Cove Rd. and at the Water Billing Office located at Billerica Town Hall, 365 Boston Road.



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