

Annual Drinking Water Quality Report

East Greenwich Township Water & Sewer Department

For the Year 2017, Results from the Year 2016

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

East Greenwich Township Water & Sewer Department and New Jersey American Water routinely monitor for over 80 contaminants in your drinking water according to Federal and State laws. The tables list only detected contaminants, and shows the results of our monitoring from January 1st to December 31st, 2016. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

East Greenwich Township Water & Sewer Department Test Results						
Contaminant:	Violation Y/N	Level Detected	Units of Measu- rement	MC LG	MCL	Likely Source of Contamination
Inorganic Contaminants:						
Antimony Test results Yr. 2015	N	Range = ND - 0.03 Highest detect = 0.03	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic Test results Yr. 2015	N	Range = ND - 0.6 Highest detect = 0.6	ppb	N/A	5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium Test results Yr. 2015	N	Range = 0.08 - 0.09 Highest detect = 0.09	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper Test results Yr. 2015 Result at 90 th Percentile	N	0.29 No samples exceeded the action level.	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride Test results Yr. 2015	N	Range = 0.6 - 0.7 Highest detect = 0.7	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead Test results Yr. 2015 Result at 90 th Percentile	N	10.4 2 samples out of 21 exceeded the action level.	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Nickel Test results Yr. 2015	N	Range = 0.3 - 0.7 Highest detect = 0.7	ppb	N/A	N/A	Erosion of natural deposits
Selenium Test results Yr. 2015	N	Range = ND - 2.4 Highest detect = 2.4	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Disinfection Byproducts:						
TTHM Total Trihalomethanes Test results Yr. 2016	N	Range = 37 - 62 Highest detect = 62	ppb	N/A	80	By-product of drinking water disinfection
HAA5 Total Haloacetic Acids Test results Yr. 2016	N	Range = ND - 12 Highest detect = 12	ppb	N/A	60	By-product of drinking water disinfection
Radioactive Contaminants:						
Gross Alpha Test results: Yrs. 2013 & 2015	N	Range = ND - 4.6 Highest detect = 4.6	pCi/l	0	15	Erosion of natural deposits
Combined Radium 228 & 226 Test results: Yrs. 2013 & 2015	N	Range = ND - 1.6 Highest detect = 1.6	pCi/l	0	5	Erosion of natural deposits

Regulated Disinfectants	Level Detected	MRDL	MRDLG
Chlorine Test results Yr. 2016	Average = 0.3 ppm	4.0 ppm	4.0 ppm
Secondary Contaminant	Level Detected	Units of Measurement	RUL
Iron - Test results Yr. 2015	Range = 248 - 520	ppb	300
Sodium - Test results Yr. 2015	Range = 40 - 95	ppm	50

We exceeded the secondary Recommended Upper Limit (RUL) for iron which is based on unpleasant taste of the water and staining of laundry. Iron is an essential nutrient, but some people who drink water with iron levels well above the RUL could develop deposits of iron in a number of organs in the body. Iron is a naturally occurring element in soil, groundwater, and some surface waters. We do not treat for, or remove iron. Iron bacteria are considered harmless to health, however, they may give water an off taste or color, cause splotchy yellow stains on laundry, and clog water systems.

We exceeded the secondary Recommended Upper Limit (RUL) for sodium. For healthy individuals the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the Recommended Upper Limit (RUL) may be of concern to individuals on a sodium restricted diet.

Secondary Contaminant- Substances that do not have an impact on health. Secondary Contaminants affect aesthetic qualities such as odor, taste or appearance. Secondary standards are recommendations, not mandates.

Recommended Upper Limit (RUL) - Recommended maximum concentration of secondary contaminants. These reflect aesthetic qualities such as odor, taste or appearance. RUL's are recommendations, not mandates.

For additional information: If you have any questions about this report or concerning your water utility, please contact Anthony Rossett, Public Works Manager / Superintendent at 856-423-0655. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Township Committee meetings at Town Hall, 159 Democrat Road, Mickleton. Meetings are held on the second and fourth Tuesdays of each month at 7:00 p.m.

Our water source: Our three wells draw groundwater from the Potomac Raritan Magothy Aquifer (PRM). We also purchase water from the New Jersey American Water. The New Jersey Department of Environmental Protection (NJDEP) has completed and issued the Source Water Assessment Report and Summary for this public water system and the New Jersey American Water Company which is available at WWW.state.nj.us/dep/swap or by contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. You may also contact your public water system to obtain information regarding your water system's Source Water Assessment. This water system's source water susceptibility ratings and a list of potential contaminant sources is included.

Potential sources of contamination: 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts 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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 the 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.

Waivers: The Safe Drinking Water Act regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for asbestos and synthetic organic 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. The East Greenwich Township Water & Sewer Department and New Jersey American Water is responsible for providing high quality drinking water, but can not control the variety of materials 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 second to 2 minutes before using 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://www.epa.gov/safewater/lead>.

Definitions:

In the "Test Results" tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

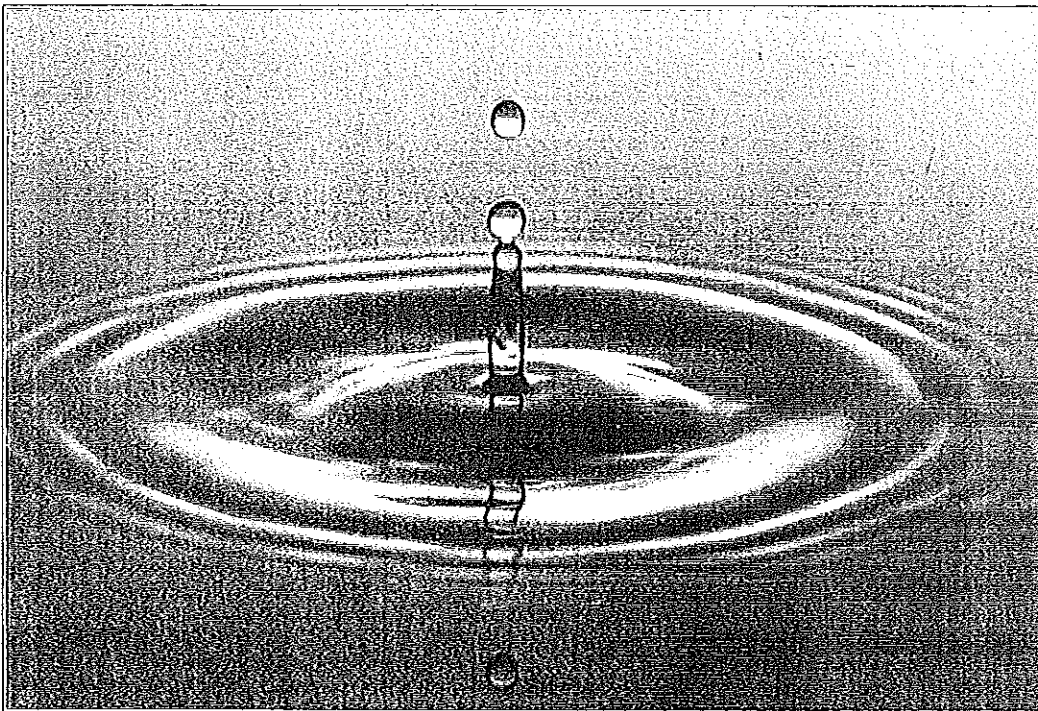
Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal -The "Goal"(MCLG) is 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 (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 (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 contamination

Total Organic Carbon (TOC) - We are required to remove a certain percentage of (TOC) from our drinking water on a monthly basis. Total Organic Carbon has no adverse health effects. However, TOC provides a medium for the formation of disinfection byproducts.



New Jersey American Water
Western / Delaware System PWS ID # NJ0327001
Year 2016 Test Results

Contaminant	Violation Y/N	Level Detected	Units of Measurement	MCLG	MCL	Likely Source
Microbiologicals:						
Turbidity	N	Range = 0.04 – 0.16 100% of samples < 0.3	NTU	N/A	TT % of samples < 0.3	Soil runoff, Naturally present in the environment
Total Organic Carbon	N	Range = 44 – 63% Lowest removal = 44%		N/A	TT >35-45% removal	Soil runoff, Naturally present in the environment
Inorganics:						
Copper Result at 90 th Percentile Test results Yr. 2016	N	0.3 No samples exceeded the action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Chromium (Total) Test results Yrs. 2014 & 2016	N	Range = ND – 1.3 Highest detect = 1.3	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Barium Test results Yrs. 2014 & 2016	N	Range = ND – 0.1 Highest detect = 0.1	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Lead Result at 90 th Percentile Test results Yr. 2016	N	2 No samples exceeded the action level	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nickel Test results Yrs. 2014 & 2016	N	Range = ND – 8 Highest detect = 8	ppb	N/A	N/A	Erosion of natural deposits
Nitrate	N	Range = ND – 1.75 Highest detect = 1.75	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radiologicals:						
Gross Alpha	N	Range = ND – 5.94 Highest detect = 5.94	pCi/l	0	15	Erosion of natural deposits
Combined Radium 226 & 228	N	Range = ND – 1.38 Highest detect = 1.38	ppb	0	5	Erosion of natural deposits
Disinfection Byproducts:						
TTHM [Total trihalomethanes]	N	Range = 6 - 47 Highest LRAA = 27	ppb	0	80	By-product of drinking water disinfection
HAA5 Haloacetic Acids	N	Range = ND - 18 Highest LRAA = 11	ppb	0	60	By-product of drinking water disinfection
Regulated Disinfectants			Level Detected	MRDL		MRDLG
Chlorine Test results Yr. 2015			Range = 0.4 – 1.02 ppm	4.0 ppm		4.0 ppm

Total Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM) compliance is based on a Locational Running Annual Average (LRAA), calculated at each monitoring location. The LRAA calculation is based on four yearly quarters of results.

Cryptosporidium:

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100% removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at a greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Unregulated Contaminant Monitoring Rule (UCMR)

New Jersey American Water participated in the UCMR. Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether regulation is warranted. Our results are available upon request. Results below are from 2013 and 2014.

Contaminant	Level Detected	Units of Measurement	Likely source
1,1-Dichloroethane	Range = ND - 0.09	ppb	Halogenated alkane; used as a solvent
1,2,3-Trichloropropane	Range = ND - 0.04	ppb	Halogenated alkane; used as an ingredient in paint, varnish remover, solvents and degreasing
1,4-Dioxane	Range = ND - .39	ppb	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacturing and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos
Bromochloromethane	Range = ND - 0.12	ppb	Used as a fire-extinguishing fluid, an explosive suppressant, and as solvent in manufacturing
Chlorate	Range = ND - 400	ppb	Agricultural defoliant or desiccant; disinfection byproduct; used in the production of chloride dioxide
Chromium	Range = ND - 1.8	ppb	Naturally-occurring element; used in the making of steel and other alloys; chromium -3 or -6 are used for chrome plating, dyes and pigments, leather tanning, and other wood preservation
Chromium (VI)	Range = ND - 1.3	ppb	Naturally-occurring element; used in the making of steel and other alloys; chromium -3 or -6 are used for chrome plating, dyes and pigments, leather tanning, and other wood preservation
Cobalt	Range = ND - 7.2	ppb	Naturally-occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; cobaltous chloride was formally used in medicine as a germicide
Molybdenum	Range = ND - 1.8	ppb	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent
Strontium	Range = 74 - 1390	ppb	Naturally-occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	Range = ND - 3.5	ppb	Naturally-occurring element metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst

East Greenwich Township Water Department-PWSID #NJ0803001

East Greenwich Township Water Department is a public community water system consisting of 3 wells and 1 purchased ground water and surface water source.

This system's source water comes from the following aquifer: Upper Potomac-Raritan-Magothy Aquifer

This system purchases water from the following water system: New Jersey American Water – Western System

Susceptibility Ratings for East Greenwich Township Water Department Sources

The table below illustrates the susceptibility ratings for the seven contaminant categories (and radon) for each source in the system. The table provides the number of wells and intakes that rated high (H), medium (M), or low (L) for each contaminant category. For susceptibility ratings of purchased water, refer to the specific water system's source water assessment report.

The seven contaminant categories are defined at the bottom of this page. DEP considered all surface water highly susceptible to pathogens, therefore all intakes received a high rating for the pathogen category. For the purpose of Source Water Assessment Program, radionuclides are more of a concern for ground water than surface water. As a result, surface water intakes' susceptibility to radionuclides was not determined and they all received a low rating.

If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels. As a result of the assessments, DEP may customize (change existing) monitoring schedules based on the susceptibility ratings.

Sources	Pathogens			Nutrients			Pesticides			Volatile Organic Compounds			Inorganics			Radionuclides			Radon			Disinfection Byproduct Precursors			
	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Wells - 3			3			3			3			3		3		3			3			3		3	

Pathogens: Disease-causing organisms such as bacteria and viruses. Common sources are animal and human fecal wastes.

Nutrients: Compounds, minerals and elements that aid growth, that are both naturally occurring and man-made. Examples include nitrogen and phosphorus.

Volatile Organic Compounds: Man-made chemicals used as solvents, degreasers, and gasoline components. Examples include benzene, methyl tertiary butyl ether (MTBE), and vinyl chloride.

Pesticides: Man-made chemicals used to control pests, weeds and fungus. Common sources include land application and manufacturing centers of pesticides. Examples include herbicides such as atrazine, and insecticides such as chlordane.

Inorganics: Mineral-based compounds that are both naturally occurring and man-made. Examples include arsenic, asbestos, copper, lead, and nitrate.

Radionuclides: Radioactive substances that are both naturally occurring and man-made. Examples include radium and uranium.

Radon: Colorless, odorless, cancer-causing gas that occurs naturally in the environment. For more information go to <http://www.nj.gov/dep/rpp/radon/index.htm> or call (800) 648-0394.

Disinfection Byproduct Precursors: A common source is naturally occurring organic matter in surface water. Disinfection byproducts are formed when the disinfectants (usually chlorine) used to kill pathogens react with dissolved organic material (for example leaves) present in surface water.

We at the East Greenwich Water Department work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call our office if you have questions.

25 THINGS YOU CAN DO TO PREVENT WATER WASTE

9 THINGS YOU CAN DO TO SAVE WATER IN THE BATHROOM:

1. Check your toilets for leaks. Put a little food coloring in your toilet tank. If, without flushing, the color begins to appear in the bowl, you have a leak that should be re-paired immediately.
2. Stop using the toilet as an ashtray or wastebasket. Every time you flush a cigarette butt, facial tissue or other small bit of trash, you waste five to seven gallons of water. PLEASE DO NOT FLUSH RAGS OR WIPES DOWN YOUR TOILET. THEY CAN CLOG YOUR SEWER LINE AND CAUSE A BACKUP INTO YOUR HOUSE.
3. Put plastic bottles in your toilet tank. To cut down on water waste, put an inch or two of sand or pebbles inside each of two plastic bottles to weigh them down. Fill them with water and put them in your toilet tank, safely away from operating mechanisms. In an average home, the bottles may displace and save ten or more gallons of water a day.
4. Take shorter showers. Long, hot showers can waste five to ten gallons every unneeded minute. Limit your showers to the time it takes to soap up, wash down and rinse off.
5. Install water saving shower heads or flow restrictors. Your local hardware or plumbing supply store stocks inexpensive water saving shower heads or restrictors that are easy to install.
6. Take Baths. A bath in a partially filled tub uses less water than all but the shortest showers.
7. Turn off the water after you wet your toothbrush. There is no need to keep water pouring down the drain. Just wet your brush and fill a glass for mouth rinsing.
8. Rinse your razor in the sink. Fill the bottom of the sink with a few inches of warm water. This will rinse your blade just as well as running water. And far less wastefully.
9. Check faucets and pipes for leaks. Even the smallest drip for a worn washer can waste 20 or more gallons a day. Larger leaks can waste hundreds.

6 THINGS YOU CAN DO TO SAVE WATER IN THE KITCHEN AND LAUNDRY:

1. Use your automatic dishwasher only for full loads.
2. Use your automatic washing machine only for full loads.
3. If you wash dishes by hand, don't leave the water running for rinsing. If you have 2 sinks, fill one with soapy water and one with rinse water. If you have only one sink, gather washed dishes in a dish rack and rinse them with a spray device or pan full of hot water.
4. Don't let the faucet run while you clean vegetables. Just rinse them in a stopped sink or a pan of clean water.
5. Keep a bottle of drinking water in the refrigerator. Running tap water to cool it off for drinking is wasteful.
6. Check faucets and pipes for leaks. Leaks waste water 24 hours a day, 7 days a week and often can be repaired with only an inexpensive washer.

10 THINGS YOU CAN DO TO SAVE WATER OUTSIDE:

1. Water your lawn only when it needs it. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, get the sprinkler.
2. Deep Soak your Lawn. When you do water, do it long enough for the moisture to soak down to the roots where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems.
3. Water during the cool parts of the day. Early morning generally is better than dusk since it helps prevent growth of fungus.
4. Don't water the gutter. Position your sprinklers so water lands on the lawn or garden, not on paved areas. Also avoid watering on windy days.
5. Plant drought resistant trees and plants. Many beautiful trees and plants thrive with far less watering than other species.
6. Put a layer of mulch around trees and plants. Mulch will slow evaporation of moisture and discourage weed growth too.
7. Use a broom, not a hose to clean driveways and sidewalks.
8. Don't run the hose while washing your car. Clean the car with a pail of soapy water. Use the hose just to rinse it off.
9. Tell your children not to play with the hose and sprinklers.
10. Check for leaks in pipes, hoses, faucets and couplings. Leaks out-side the house may not seem as bad since they're not as visible. But then can be just as wasteful as leaks inside. Check frequently and keep them drip free.

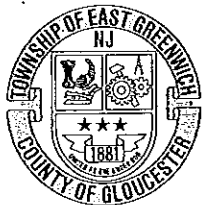
SIZE OF LEAK	●	WASTE PER MONTH @60 PSI
1/4 INCH	●	400,000 GALLONS
1/8 INCH	●	100,000 GALLONS
1/16	●	25,000 GALLONS
1/32	●	6,000 GALLONS

**A dime has about
11/16 INCH Diameter**



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**East Greenwich Water & Sewer Department's
2017 Flushing Schedule**

East Greenwich Township flushes
our water system twice a year.

MAY 1, 2017 THROUGH MAY 31, 2017

OCTOBER 1, 2017 THRU NOVEMBER 4, 2017



We flush between the hours of 10:00pm to 5:00am and 9:00am to 3:00pm. There will be a noticeable loss of pressure and some discoloration. Please allow water to run until it clears.

East Greenwich Water & Sewer Department is on-call 24 hours a day, seven days a week. If you have a water or sewer emergency after normal business hours please call 856-853-0911. This number is East Greenwich dispatch for non-police and fire emergencies.