

2016 Annual Drinking Water Quality Report

Bedford Township Municipal Authority

As your public drinking water supplier (Public Water Supply ID Number 4050037), the Bedford Township Municipal Authority (BTMA) is pleased to present to you our Consumer Confidence Report for the 2016 operating year. This report provides you with information about the quality of water and the services we deliver to you every day. We constantly strive to provide you with a safe and dependable supply of drinking water. We want you to understand the constant effort we make to continually protect our water sources and improve the quality of water supplied to you. We are committed to ensuring the quality and consistency of your water.

SOURCES: Three separate groundwater sources, consisting of a total of five production wells, make up the public water supply that is owned and operated by the BTMA. The first source is located in the Chalybeate area of Bedford Township and consists of two wells known as the Bowman Tract Wells. Construction of these wells was completed in May 2000. The second source is situated in the Bedford Springs area and consists of one well referred to as the Bedford Springs or "Hotel" Well. This well was placed into operation in mid-2007. Development of a third new source was completed in 2009. The third source consists of two wells known as the Shaffer Tract wells. These wells are located in the Belden (Camp Shaffer) area of the Township. The Shaffer Tract well source was placed into operation in mid-October of 2009. The BTMA developed this additional source to ensure an adequate supply for its current customers, to provide for continuing growth that is being experienced within the Township and to provide an alternative source of supply in the event of an emergency, a supply problem, or down time during system maintenance within one of its other sources. These sources produced a combined total of 56 million gallons of water for use by BTMA customers during 2016. The availability of multiple, independent sources of supply affords the BTMA considerable flexibility in its operation of the water system which minimizes the chance of a long term service interruption to its customers during periods of necessary source maintenance and repair, or potential emergency events.

In addition to these ground water sources, the Authority maintains four active, bidirectional interconnections with Bedford Borough's water system which may be utilized during emergency situations as supplemental sources of supply for both the BTMA and Bedford Borough when needed. During the late summer early fall dry period in 2016, a total of 6.3 million gallons was supplied to Bedford Borough through these interconnections to supplement their surface water sources. During that same period a total of 378,000 gallons flowed back into the BTMA water system due to hydraulic gradient differences between the two systems. Although the flow back of water from the Bedford Borough system was short in duration and total quantity was minimal compared to total water volume supplied by the wells on those dates, the Safe Drinking Water Act requires that relevant information regarding the quality of water supplied from the Bedford Borough water system be included in this report. Therefore, the applicable water quality testing data from the Bedford Borough system has been included in the BTMA Water Quality Report table. A full copy of the Bedford Borough 2016 water quality report may also be viewed at the Bedford Borough website at <http://bedboro.com/reports-and-policies/> or by visiting the Bedford Borough office located at 244 West Penn Street, Bedford, or the Bedford Public Library.

SOURCE WATER ASSESSMENT: A Geographic Information System (GIS) analysis-based, Source Water Assessment was completed in 2005 by the PA Department of Environmental Protection (PA DEP) and the Penn State Environmental Resources Research Institute for the Bedford Township Municipal Authority water supply. The Assessment has found that the BTMA ground water sources are potentially susceptible to contamination from agricultural activities situated within the well systems' recharge zones. Source Water Assessments were also completed for the Bedford Borough Water System in 2003. The Bedford Borough Source Water Assessments determined that the Bedford surface water sources are potentially susceptible to contamination from runoff of deicing materials and spills along roadways, bridges and railroads and runoff from salt storage facilities, agricultural fields, golf courses, malfunctioning septic systems and timbering operations. Copies of the respective reports were provided to the BTMA, Bedford Township, Bedford Borough Water Authority and the Altoona District Office of the PA DEP. Copies of the respective summary reports are available by writing to the BTMA, 1007 Shed Road, Suite 2, Bedford PA 15522 or to the Bedford Borough Water Authority, 244 West Penn Street, Bedford PA 15522. Copies of the complete reports are also available for review at the PA DEP Southcentral Regional Office, Records Management Unit at (717) 705-4700. Additional information regarding Source Water Assessments is also available from the PA DEP website at www.dep.state.pa.us (Keyword: DEP Source Water).

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.

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 microbial contaminants are available from the Safe Drinking Water Hotline at (1-800-426-4791).

DRINKING WATER, INCLUDING BOTTLED WATER, may reasonably be expected to contain at least small amounts of some contaminants. The presence of some 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). **IN ORDER TO ENSURE THAT TAP WATER IS SAFE TO DRINK**, EPA and DEP prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

WATER QUALITY was monitored during the operating period between January 1, and December 31, 2016. The Authority routinely monitors for contaminants in your drinking water according to Federal and State laws.

THE FOLLOWING TABLE SHOWS THE RESULTS OF OUR WATER QUALITY MONITORING for the period of January 1st through December 31, 2016. In reviewing this table, it should be noted that the State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of the data is from previous years in accordance with the Safe Drinking Water Act. The date of sampling has been noted on the following sampling results table. The table also includes water quality information provided by the Bedford Borough Water Authority since water was back-fed into the BTMA water system for a short period of time during 2016. Only those contaminants found in the Authority's treated water, or water supplied by Bedford Borough, are listed in the table.

2016 Detected Regulated Contaminant Table
Bedford Township Municipal Authority and Bedford Borough Water Systems (As Noted)

| Contaminant (Unit of Measure) | MCL | MCLG | Highest Level Detected | Range | Sample Period | Violation | Likely Source of Contamination |
|--|---|-----------------------------|--------------------------------------|------------------|--------------------------------------|-----------|---|
| Turbidity | | | | | | | |
| Turbidity (NTU) <i>[Bedford Borough water treatment system]</i> | TT = 1 NTU single measurement | 0 | 0.125 NTU | NA | 8/30/16 | No | Soil Runoff |
| | TT = at least 95% of monthly samples ≤0.3 | | 100% | NA | 2016 | No | |
| Inorganic Contaminants | | | | | | | |
| Barium (ppm) <i>[BTMA system]</i> | 2 | 2 | 0.0268 | 0.0142 to 0.0268 | 2015 | No | Discharge of drilling waste, discharge from metal refineries, erosion of natural deposits |
| Barium (ppm) <i>[Bedford Boro system]</i> | 2 | 2 | 0.054 | NA | 2011 | No | |
| Fluoride (ppm) <i>[Bedford Boro system]</i> | 2 | 2 | 0.654 | NA | 2011 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Disinfectant Residuals | | | | | | | |
| Chlorine – Distribution System | | | | | | | |
| Chlorine (ppm) <i>[BTMA distribution system]</i> | MRDL = 4 | MRDLG = 4 | Max Level Detected= 1.49 | 1.3 to 1.49 | 4/2016 | No | Water additive used to control microbes |
| Chlorine (ppm) <i>[Bedford Borough distribution system]</i> | MRDL = 4 | MRDLG = 4 | Max Level Detected= 1.54 | 1.01 to 1.54 | 4/2016 | No | |
| Chlorine (ppm) – Entry Points | | | | | | | |
| BTMA Bowman Wells (ppm) | MinRDL=0.4 | NA | Min Level Detected =1.28 | 1.28 to 1.57 | 8/26/2016 | No | Water additive used to control microbes |
| BTMA Bedford Springs Well (ppm) | | NA | Min Level Detected = 0.95 | 1.13 to 1.42 | 7/16/2016 | No | |
| BTMA Shaffer Wells (ppm) | | NA | Min Level Detected= 1.19 | 1.34 to 1.65 | 1/12/2016 | No | |
| Bedford Borough System (ppm) | MinRDL=0.2 | NA | Min Level Detected= 0.674 | 0.516 to 2.348 | 2/3/2016 | No | |
| Disinfection By-Products | | | | | | | |
| Trihalomethanes, Total (ppb) <i>[Bedford Borough distribution system]</i> | 80 | N/A | 43.7 | 23.8 to 60.8 | 2016 | No | Byproduct of drinking water chlorination. |
| Haloacetic Acids (ppb) <i>[Bedford Boro distribution system]</i> | 60 | N/A | 43.6 | 26.5 to 56.6 | 2016 | No | Byproduct of drinking water disinfection. |
| Total Organic Carbon (Bedford Borough Water Treatment System) | | | | | | | |
| Contaminant | Range of % removal required | Range of % removal achieved | Number of Quarters Out of Compliance | Violation | Source of Contamination | | |
| Total Organic Carbon <i>[Bedford Borough System]</i> | 35% | 20% to 37% | 3 | Y* | Naturally present in the environment | | |

| Lead and Copper | | | | | | | |
|--|--|------|------------------------------------|---------------------------------|---------------------|--------------------------------------|---|
| Contaminant (Unit of Measure) | Action Level (AL) | MCLG | 90 th Percentile Value | # Sites Above AL of Total Sites | Sample Period | Violation | Likely Source of Contamination |
| Lead (ppb) [BTMA Distribution System] | 15 | 0 | 1.92 | Zero out of 10 samples | 2016 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (ppm) [BTMA Distribution System] | 1.3 | 1.3 | 0.946 | Zero out of 10 samples | 2016 | No | Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives. |
| Lead (ppb) [Bedford Borough Distribution System] | 15 | 0 | 2.22 | Zero out of 20 samples | 2016 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper (ppm) [Bedford Borough Distribution System] | 1.3 | 1.3 | 0.432 | Zero out of 20 samples | 2016 | No | Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives. |
| Microbial Contaminants | | | | | | | |
| Contaminant | MCL | MCLG | Highest Number of Positive Samples | Sample Period | Violation? (Yes-No) | Likely Source of Contamination | |
| Total Coliform Bacteria [BTMA Distribution System] | No more than 1 positive sample per month | 0 | 1 | 2016 | No | Naturally present in the environment | |
| Total Coliform Bacteria [Bedford Borough Distribution System] | No more than 1 positive sample per month | 0 | 0 | 2016 | No | Naturally present in the environment | |
| E. Coli Bacteria [Bedford Borough raw water] | 0 | 0 | 0 | 2016 | No | Human and animal fecal waste | |

Violations – Bedford Township Municipal Authority Water System - None in 2016

***Violations – Bedford Borough Water System – (Note: This information is being provided since water was fed into the BTMA system from Bedford Borough for a short period in 2016).** During the 1st quarter of 2016, the Authority collected samples for haloacetic acids (HAAs) and total trihalomethanes (TTHMs) a day early and outside of the sampling period authorized by Pennsylvania Safe Drinking Water Regulations and the Disinfection Byproducts Rule resulting in a minor monitoring violation. The Authority also did not meet the minimum required percent (%) removal requirement for total organic carbon (TOC) during 2016. TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts. These byproducts include TTHMs and HAAs. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer; however, the Authority DID NOT exceed the MCLs for disinfection byproducts including TTHMs and HAAs during 2016.

Supplemental Information Regarding Lead in Drinking Water – Although no samples from the BTMA distribution system that were tested for lead exceeded the established Action Limit (AL), lead was present at detectable levels in two samples analyzed in 2016. Elevated levels of lead, if present, 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 BTMA is responsible for providing high quality drinking water, but cannot 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 seconds to 2 minutes before using 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>.

Additional contaminants are regulated and are also routinely tested for, but are not present at detectable levels. Contaminants that have been tested for by the Bedford Township Municipal Authority, but not detected in the Authority's system during 2016 or recent years, included:

- **Radioactive Contaminants: (2016)** Gross Alpha Emitters, Radium 226 & 228 & Combined Uranium
- **Volatile Organic Compounds (VOCs) including: (2016)** cis-1,2-Dichloroethylene; Benzene; trans-2-Dichloroethylene; Dichloromethane; 1,2-Dichloropropane; Ethylbenzene; Styrene; Tetrachloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; Toluene; Xylenes (total); Carbon tetrachloride; Chlorobenzene; o-Dichlorobenzene; p-Dichlorobenzene; 1-2-Dichloroethane; 1,1-Dichloroethylene; 1,2,4-Trichlorobenzene; Vinyl chloride - Bowman, Shaffer and Bedford Springs Well Sources
- **Inorganic contaminants including: (2016)** Nitrates; Nitrites, **(2015)** Antimony; Arsenic; Beryllium; Cadmium; Chromium; Cyanide; Mercury; Nickel; Fluoride; Selenium; Thallium – Bowman, Shaffer and Bedford Springs sources; **(2014)** Asbestos
- **Disinfection By-products including: (2016)** Total trihalomethanes and Haloacetic acids – BTMA Distribution system

- **Synthetic Organic Chemicals (SOCs) including: (2015)** Lindane; Methoxychlor; Endothall; Di(2-Ethylhexyl)Adipate; Oxymal (Vydate); Simazine; Di(2-Ethylhexyl) Phthalate; Piclorem; Carbofuran; Hexachlorocyclopentadiene; Atrazine; Alachlor; 2,4-D; Benzo(a)pyrene; Pentachlorophenol; 1,2-Dibromo, 3 Chloroprop; Ethylene Dibromide (EDP); Chlorodane; Toxaphene; Dalpon; Diquat; Glyphosate; Dinoseb; Dioxin; Heptachlor; Heptachlor dioxide; 2,4,-D; 2,4,5-Silvex; Hexachlorobenzene; PCBs – Bowman, Shaffer and Bedford Springs Well sources.

Glossary of Terms Used in This Report

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

BTMA - Bedford Township Municipal Authority

DEP – Pennsylvania Department of Environmental Protection; **EPA** – US Environmental Protection Agency

Maximum Contaminant Level (MCL) - 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 (MCLG) -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.

Minimum Residual Disinfectant Level (MinRDL) – The minimum level of residual disinfectant required at the entry point to the distribution system.

NA – Not Applicable **ND** – Not Detected **(pCi/L)** - PicoCuries per liter - A measure of radioactivity

(ppb) - Parts per billion or micrograms per liter **(ppm)** - Parts per million or milligrams per liter

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

- PLEASE CONSERVE OUR WATER RESOURCES –

The Bedford Township Municipal Authority requests that customers conserve our water resources by conserving water in the home and at places of work. Efficient water use can have major environmental, public health, and economic benefits by helping to improve water quality, maintain aquatic ecosystems, and protect drinking water resources. Efficient use of water, through behavioral, operational, or equipment changes, if practiced broadly can help mitigate the effects of drought. Efficiency measures can also save the homeowner money on their water and energy bills. Many Americans know about the importance of saving energy and water. But few know about the drops to watts connection—that it takes energy to pump, treat, and deliver the water we use every day.

The following tips and suggestions were obtained from the *Eartheasy* website and can help you conserve water, save money and protect and preserve our water resources. For many more water saving tips and water conservation resources, please visit their website at www.eartheasy.com. In addition to saving money on your utility bill, water conservation helps prevent water pollution in nearby rivers and local watersheds. Overloading municipal sewer systems can cause untreated sewage to flow to lakes and rivers. The smaller the amount of water flowing through these systems, the lower the likelihood of pollution. In some communities, costly sewage system expansion has been avoided by communitywide household water conservation.

Water conservation in the home...

1. Check faucets and pipes for leaks. A small drip from a worn faucet washer can waste 20 gallons of water per day. Larger leaks can waste hundreds of gallons.
2. Don't use the toilet as an ashtray or wastebasket. Every time you flush a cigarette butt, facial tissue or other small bit of trash, five to seven gallons of water is wasted.
3. 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 within 30 minutes, you have a leak that should be repaired immediately. Most replacement parts are inexpensive and easy to install.
4. Use your water meter to check for hidden water leaks. Read the house water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.

5. Install water-saving shower heads and low-flow faucet aerators. Inexpensive water-saving low-flow shower heads or restrictors are easy for the homeowner to install. Also, long, hot showers can use five to ten gallons every unneeded minute. Limit your showers to the time it takes to soap up, wash down and rinse off. "Low-flow" means it uses less than 2.5 gallons per minute. You can easily install a ShowerStart showerhead, or add a ShowerStart converter to existing showerheads, which automatically pauses a running shower once it gets warm. Also, all household faucets should be fit with aerators. This single best home water conservation method is also the cheapest!
6. Save water with each flush. Put plastic bottles or float booster 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 the bottles with water, screw the lids on, and put them in your toilet tank, safely away from the operating mechanisms. Or, buy an inexpensive tank bank or float booster. This may save ten or more gallons of water per day. Be sure at least 3 gallons of water remain in the tank so it will flush properly. If there is not enough water to get a proper flush, users will hold the lever down too long or do multiple flushes to get rid of waste. Two flushings at 1.4 gallons is worse than a single 2.0 gallon flush. A better suggestion would be to buy an adjustable toilet flapper that allow for adjustment of their per flush use. Then the user can adjust the flush rate to the minimum per flush setting that achieves a single good flush each time. For new installations, consider buying "low flush" toilets, which use 1 to 2 gallons per flush instead of the usual 3 to 5 gallons. Replacing an 18 liter per flush toilet with an ultra-low volume (ULV) 6 liter flush model represents a 70% savings in water flushed and will cut indoor water use by about 30%.
7. Insulate your water pipes. It's easy and inexpensive to insulate your water pipes with pre-slit foam pipe insulation. You'll get hot water faster plus avoid wasting water while it heats up.
8. Take shorter showers. One way to cut down on water use is to turn off the shower after soaping up. Then turn it back on to rinse. A four-minute shower uses approximately 20 to 40 gallons of water.
9. Turn off the water after you wet your toothbrush. There is no need to keep the water running while brushing your teeth. Just wet your brush and fill a glass for mouth rinsing.
10. Rinse your razor in the sink. Fill the sink with a few inches of warm water. This will rinse your razor just as well as running water, with far less waste of water.
11. Use your dishwasher and clothes washer for only full loads. Automatic dishwashers and clothes washers should be fully loaded for optimum water conservation. Most makers of dishwashing soap recommend not pre-rinsing dishes which is a big water savings. With clothes washers, avoid the permanent press cycle, which uses an added 20 liters (5 gallons) for the extra rinse. For partial loads, adjust water levels to match the size of the load. Replace old clothes washers. New Energy Star rated washers use 35 - 50% less water and 50% less energy per load. If you're in the market for a new clothes washer, consider buying a water-saving frontload washer.
12. Minimize use of kitchen sink garbage disposal units. In-sink 'garburators' require lots of water to operate properly, and also add considerably to the volume of solids in a septic tank or sewer system which can lead to maintenance problems. Start a compost pile as an alternate method of disposing food waste.
13. When washing dishes by hand, don't leave the water running for rinsing. If you have a double-basin, fill one with soapy water and one with rinse water. If you have a single-basin sink, gather washed dishes in a dish rack and rinse them with a spray device or a pan full of hot water. Dual-swivel aerators are available to make this easier. If using a dishwasher, there is usually no need to pre-rinse the dishes.
14. Don't let the faucet run while you clean vegetables. Just rinse them in a stoppered sink or a pan of clean water.
15. Keep a bottle of drinking water in the fridge. Running tap water to cool it off for drinking water is wasteful.

Water conservation in the yard and garden...

1. Plant drought-resistant lawns, shrubs and plants. If you are planting a new lawn, or overseeding an existing lawn, use drought-resistant grasses such as the new "Eco-Lawn". Many beautiful shrubs and plants thrive with far less watering than other species. Replace herbaceous perennial borders with native plants. Native plants will use less water and be more resistant to local plant diseases. Consider applying the principles of xeriscape for a low-maintenance, drought resistant yard.
2. Plant slopes with plants that will retain water and help reduce runoff.
3. Group plants according to their watering needs.
4. Put a layer of mulch around trees and plants. Mulch will slow evaporation of moisture while discouraging weed growth. Adding 2 - 4 inches of organic material such as compost or bark mulch will increase the ability of the soil to retain moisture. Press the mulch down around the drip line of each plant to form a slight depression which will prevent or minimize water runoff.

5. 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.
6. 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, the lawn is ready for watering. Letting the grass grow taller (to 3") will also promote water retention in the soil. Most lawns only need about 1" of water each week. During dry spells, you can stop watering altogether and the lawn will go brown and dormant. Once cooler weather arrives, the morning dew and rainfall will bring the lawn back to its usual vigor. This may result in a brown summer lawn, but it saves a lot of water.
7. Deep-soak your lawn. When watering the lawn, 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. Put an empty tuna can on your lawn - when it's full, you've watered about the right amount. Visit our natural lawn care page for more information.
8. Water during the early parts of the day; avoid watering when it's windy. Early morning is generally better than dusk since it helps to prevent the growth of fungus. Early watering, and late watering, also reduce water loss to evaporation. Watering early in the day is also the best defense against slugs and other garden pests. Try not to water when it's windy - wind can blow sprinklers off target and speed evaporation.
9. Add organic matter and use efficient watering systems for shrubs, flower beds and lawns. Adding organic material to your soil will help increase its absorption and water retention. Areas which are already planted can be 'top dressed' with compost or organic matter.
10. Avoid over-watering plants and shrubs, as this can actually diminish plant health and cause yellowing of the leaves. When hand watering, use a variable spray nozzle for targeted watering.
11. Don't run the hose while washing your car. Clean the car using a pail of soapy water. Use the hose only for rinsing - this simple practice can save as much as 150 gallons when washing a car. Use a spray nozzle when rinsing for more efficient use of water. Better yet, use a waterless car washing system; there are several brands, such as EcoTouch, which are now on the market.
12. Use a broom, not a hose, to clean driveways and sidewalks

Water Conservation Summary...

In 1990, 30 states in the US reported 'water-stress' conditions. In 2000, the number of states reporting water-stress rose to 40. In 2009, the number rose to 45. There is a worsening trend in water supply nationwide. Taking measures at home to conserve water not only saves you money, it also is of benefit to the greater community.

By using water-saving features you can reduce your in-home water use by 35%. This means the average household, which uses 130,000 gallons per year, could save 44,000 gallons of water per year. On a daily basis, the average household, using 350 gallons per day, could save 125 gallons of water per day. The average individual, currently using 70 gallons per day, could save 25 gallons of water per day.

When buying low-flow aerators, be sure to read the label for the actual 'gpm' (gallons per minute) rating. Often, the big box retailers promote "low-flow" which are rated at 2.5 gpm, which is at the top of the low-flow spectrum. This may be needed for the kitchen sink, but we find that a 1.5 gpm aerator works fine for the bathroom sink and most water outlets, delivering the same spray force in a comfortable, soft stream.

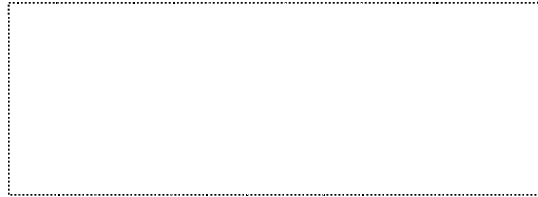
Finally, water conservation can come naturally when everyone in the family is aware of its importance, and parents take the time to teach children some of the simple water-saving methods around the home which can make a big difference.

Check out these additional websites for more water conservation information:

www.epa.gov/WaterSense; www.environment.nationalgeographic.com/environment/freshwater/water-conservation-tips/; wateruseitwisely.com/100-ways-to-conserve/index.php; www.americanwater.com/49ways.php;
www.epa.gov/greenhomes/ConserveWater.htm; www.h2ouse.org/

Please help us find leaks, save water and reduce water service costs... Because water lines are located underground, leaks may go unnoticed for days and even years resulting in a considerable waste of our valuable water resource and additional costs for all customers. Please help us locate these leaks by reporting to the Water Department any occurrences of: water running in locations that are normally dry; wet spots in yards and streets; the sound of water running in your home when water is not in use; the sound of water trickling or running in a storm inlet when it is not raining; sudden or unusually low water pressure; and slugs of discolored or cloudy water. When an occurrence such as this is reported, a representative of the water department will make contact and investigate the situation.

Bedford Township Municipal Authority
1007 Shed Road, Suite 2
Bedford PA 15522



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This report shows our water quality and what it means. IF YOU HAVE ANY QUESTIONS ABOUT THIS REPORT or questions concerning your water utility, please contact Mr. Verl Miller, Water System Manager at (814) 623-7879, Monday through Friday, 7:30 a.m. to 3:30 p.m. 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 Authority meetings. They are held at 4:00 p.m. on the first Wednesday of each month at the Bedford Township Municipal Building located at 1007 Shed Road, Suite 2, in Bedford Township. For more information regarding the Bedford Township Municipal Authority and the BTMA water system, you may visit the Authority's webpage on the PA Rural Water Association website at: <http://www.prwa.com/btma>.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.