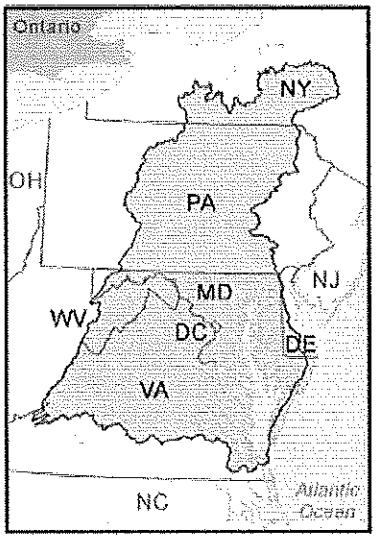
I live in Lancaster County, why should I care about the Bay?

Since colonial times, the Bay has lost half of its forested shorelines, over half of its wetlands, nearly 90 percent of its underwater grasses, and more than 98 percent of its oysters. During the 350 years between 1600 and 1950, approximately 1.7 million acres of the Bay watershed were developed. During the 30 years between 1950 and 1980, the Bay watershed lost an additional 2.7 million acres to development. All of this development threatens the water quality of the Bay.

The leading threat to the health of the Chesapeake Bay is excess nitrogen and phosphorous pollution that destroys habitat and can cause fish kills. Top sources of these pollutants include agriculture, sewage treatment plants, runoff from urban and suburban areas, and air pollution from automobiles, factories, and power plants. Other threats to the Bay's health include sedimentation from streambank erosion, stormwater, and habitat loss. So in the big picture we are all responsible for the health of the Chesapeake Bay. Whatever we do in our little portion of the Bay watershed will affect the overall water quality of our natural treasure. Remember **WE ALL LIVE DOWNSTREAM** so what we do "up" here will affect our neighbors downstream in the Chesapeake Bay.



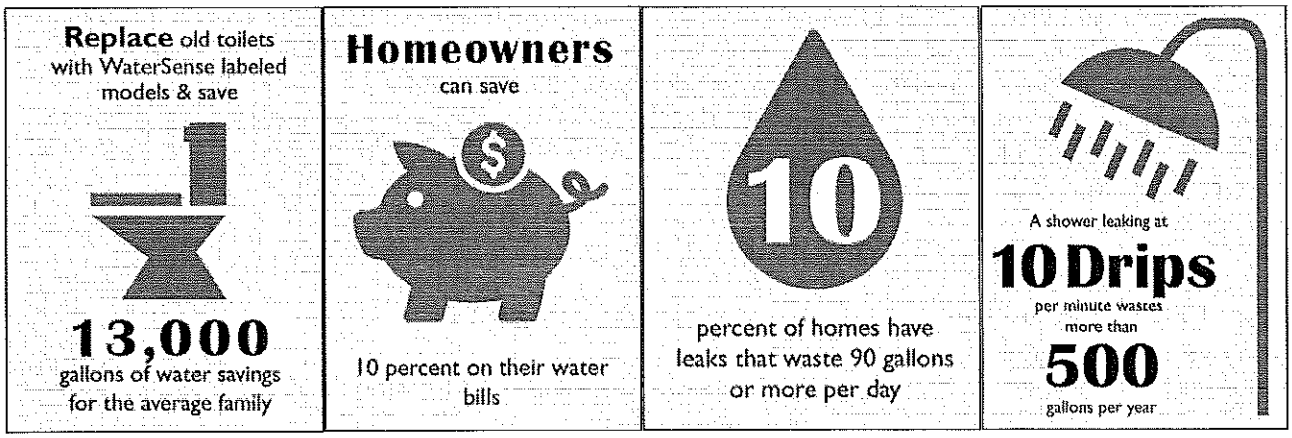
Overview of the Chesapeake Bay Watershed

Water Conservation Ideas That Protect Our Watersheds

How can I reduce my water usage in...?

The Bathroom

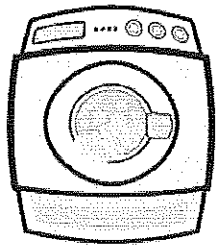
- Check for toilet leaks by adding food coloring to the tank. If the toilet is leaking, color will appear in the bowl within 30 minutes. Purchasing a low-flow toilet can reduce indoor water use by 20%.
- Avoid unnecessary flushing. Dispose of tissues, insects, and similar waste in the trash rather than the toilet.
- You can save 2 gallons of water a day by turning off the tap while brushing your teeth, washing your face, or shaving.
- If your shower can fill a one-gallon bucket in less than 20 seconds, replace it with an ultra low-flow version water efficient showerhead, which can save up to 200 gallons per month.
- Time your shower to keep it under 5 minutes. You'll save up to 1,000 gallons a month.
- Use the minimum amount of water needed for a bath by closing the drain first thing and filling the tub only 1/3 full. The initial burst of cold water can be warmed by adding hot water later.



Source: epa.gov/watersense

Water Conservation Tips, Continued...

How can I reduce my water usage in...?



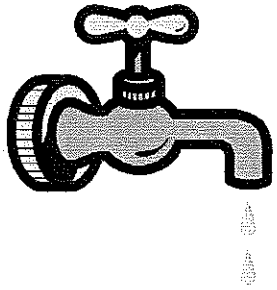
The Laundry

- The amount of water your washing machine uses is adjustable; adjust according to load size. You could save 1,000 gallons a month. Remember full loads are most beneficial.
- Look for water saving washing machines. Horizontal loading machines use less water than top-loading machines.

The Kitchen

- Minimize the use of garbage disposals; they require a lot of water to operate. Start a compost pile as an alternate method of disposing of food waste.
- Store drinking water in the refrigerator rather than letting the tap run to get a cool glass of water.
- Do not use running water to thaw meat or other frozen foods. Defrost them overnight in the refrigerator, or by using the defrost setting on your microwave.
- When washing dishes by hand, fill one sink or basin with soapy water. Quickly rinse under a slow stream of water from the faucet. Use the dirty water to run your sink disposal if necessary.
- Purchase dishwashers with water and energy star saving options and do not pre-rinse dishes prior to loading in the dishwasher. Pre-rinsing is not always necessary. Also, only run the dishwasher when you have a full load.

Other areas of the House



- Never put water down the drain when there may be another use for it such as watering a plant or garden, or cleaning.
- Reuse fish tank water on your household or garden plants—it makes nice fertilizer.
- Verify that your home is leak free, because many homes have hidden water leaks. Read your 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.
- Repair dripping faucets by replacing washers. If your faucet is dripping at the rate of one drop per second, you can expect to waste 2,700 gallons per year.

Outdoor Activities

- Don't overwater your lawn. As a general rule, lawns only need watering every 5-7 days in the summer. A hearty rain eliminates the need for watering for as long as two weeks.
- Buy a rain gauge to determine how much rain or irrigation your yard has received.
- Water lawns only during the morning hours when temperatures and wind speed are the lowest. This reduces losses from evaporation. Don't water your street, driveway, or sidewalk. Position your sprinklers so that your water lands on the lawn and shrubs and not the paved areas.
- Do not leave sprinklers or hoses unattended. Your garden hose can pour out 600 gallons or more in only a few hours. Use a kitchen timer to remind yourself to turn the water off. Remember, the amount of water used by a sprinkler in one hour is equal to the daily water needs of a family of four.
- Keep your lawn mower blade at least three inches high. A lawn cut higher encourages grass roots to grow deeper, shades the root system, and holds soil moisture better than closely-clipped lawns.
- Avoid over fertilizing your lawn. The application of fertilizers increases the need for water and is a source of water pollution.
- Mulch to retain moisture in the soil. Mulching helps control weeds that compete with plants for water.
- Avoid hosing down your driveway or sidewalk; use a broom instead and save hundreds of gallons of water.
- Consider using a commercial car wash that recycles water. If you wash your own car, park it on the grass, use a bucket with soapy water, turn off the water while soaping, and use a hose with a pressure nozzle to decrease rinsing time.

Pequea Mill Bridge Camp Resort Project

Overview: A collaborative effort between East Lampeter Township, West Lampeter Township, and Strasburg Borough, the proposed 877 linear foot streambank project is located along the Mill Bridge Camp Resort property along the Pequea Creek in East Lampeter Township. The stream suffers from steep banks and erosion issues. Through design, permitting, engineering and installation of streambank restoration techniques, the goal is to help curb the erosion and bank failure issues. The bank will be stabilized on the north side and feathered back to reduce slope on the south side, and will be planted with a variety of natives as the undergrowth along the banks has been largely eroded and stripped away. The riparian buffer along this section of the creek will be added to with the goal of creating a more uniform cover and adding filtering for the stormwater which flows into the creek from the roadway.

Grant: A DEP grant was received in July of 2018 for $199,610 with a $50,000 match for East Lampeter Township to complete the work. An MOU was drafted between the three municipalities to break up the match contribution based on the amount of streambank crediting that each municipality was receiving. Of the $50,000 required match, West Lampeter contributed 60%, East Lampeter 27.5%, and Strasburg Borough 12.5%. It is expected that East Lampeter and Strasburg Borough will meet all of their required reductions of sediment for the Pequea Creek for this permit cycle's CBPRP through the installation of this project. West Lampeter will meet about 45% of its required sediment reduction through this project.

Consultants: After an agreement with property owner Brian Kopan was drafted, David Miller Associates completed the initial survey work. Landstudies Inc. is the consultant on the permitting, design, and construction of the project.

Scheduling: The Permit has now been approved by DEP. Correspondence between the municipalities and the property owner can now begin to discuss the timing of construction so as to not interfere with the campground operations in the summertime.

Permitting impact to the Strasburg PRP: The Borough received a 12.5% poundage allotment from the overall project as part of the approved Permit. This reduced the Borough's overall reduction requirement from 52,594 lbs. to 27,844 lbs., thereby lessening the poundage requirements on the Borough for the Glenn Eshelman stream restoration PRP project.

Why is Water Conservation Important for our Watersheds?

Think about this, the average family of four uses approximately 400 gallons of water per day. Europeans, on the other hand, use five times less water than Americans. Why is that? Europeans have realized that water is a precious resource that needs to be conserved.

The protection and preservation of our water resources and the reduction and wise use of water is termed water conservation. Growing populations and ongoing droughts are squeezing our water resources dry, causing destruction to natural habitats and impacting our everyday use of water. We have no choice but to pay more attention to how we use water, and how we may be wasting it. We must bridge the gap between our understanding of how important water is to our survival and what we can do to ensure that we have an adequate supply of clean water for generations to come.

In 1900, each of the six million people living in Pennsylvania used about 5 gallons of water per day. Since then, our population has doubled to almost 12 million people and our water consumption has increased to an average of 62 gallons per day. Part of this 900% increase in water use is due to the many modern water-using conveniences in our homes.

Our water resources are not unlimited. They are affected every day by precipitation, population growth, economic development and pollution. Because water is a resource that must be shared, competition for its use is an ever-increasing management problem. A cost-effective way to protect our water resources is through sound water resources management and conservation. **There are a number of ways to save water but they all start with YOU!**