pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DROP BY DROP: USE WATER WISELY

Water is an important natural resource. It is used every day at home and at work in so many ways that many take it for granted. This fact sheet is about water conservation and what can be done to reduce water use.

In 1900, each of the six million people living in Pennsylvania used about five gallons of water per day. Since then, the population has doubled to over 12 million people and water consumption has increased to an average of 62 gallons per day.

Part of this 900 percent increase in water use is due to the many modern water-using conveniences, such as automatic dishwashers, clothes washers, garbage disposals and home water treatment systems. A significant change in water use occurred when the bathroom was moved indoors.

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. In the past, supply problems were solved by constructing storage facilities and developing new resources such as wells and reservoirs. However, these measures can be both economically and environmentally costly.

A more cost-effective way to protect water resources is through sound management and conservation.

Average Daily Water Use

Be aware of personal water use! Awareness is the first step in conservation.

- *Metered Water*

  If the water use is metered, review the water bill. Divide water usage by the number of days in the billing period and then by the number of people in the household. If the bill measures water in cubic feet, convert to gallons by multiplying by 7.48.

- *Unmetered Water*

  If water use is not metered, determine water use for each fixture. Flow rates for showers and faucets can be measured by using a container and a watch to measure the amount of water discharged through the fitting in a minute. Toilet use per flush can be approximated by measuring the volume of water inside the toilet tank (width x length x height) and dividing by 231. (There are 231 cubic inches in a gallon of water.) After the water use has been determined for each fixture, record the number of uses and the length of time each fixture is used to determine the average daily water use. Remember to estimate the amount of water used by appliances such as clothes washers and dishwashers as well as home water treatment systems.

  After determining average daily water use, compare it to the statewide residential/water use average of 62 gallons per person per day (GPCD). Is the water use average more or less than 62 GPCD? If the water use averages more than 62 GPCD, consider the suggestions contained in this fact sheet.

Water Savings

Water-saving plumbing fixtures and appliances are cost effective, providing permanent long-term economic advantages. Low-flow toilets, showerheads and faucet aerators save valuable water and energy used to heat water without requiring a change in personal use habits.

Repair All Leaks

A dripping faucet is more than annoying; it's expensive. Even small leaks can waste significant amounts of water. Hot water leaks are not only a waste of water, but also of the energy needed to heat the water.

Leaks inside a toilet can waste up to 200 gallons of water a day. Toilet leaks can be detected by adding a few drops of food coloring to water in the toilet tank. If the colored water appears in the bowl, the tank is leaking. Repair leaking faucets and toilets.