

Protecting Water Quality Benefits All Pennsylvania Residents

As owner and operator of public water supplies and wastewater treatment plants, the Pennsylvania Department of Conservation and Natural Resources (DCNR) is heavily regulated by state and federal agencies. DCNR is charged with ensuring that the protection of public health and safety is paramount in day to day operations of state park and forest facilities. These responsibilities require rigorous training, specialized equipment, and prioritized funding.

Public water supplies must be routinely tested and maintained to meet ever increasing U.S. Environmental Protection Agency (EPA) safe drinking water standards. Wastewater treatment plant operators must be trained and certified to operate complex treatment equipment and ensure Pennsylvania Department of Environmental Protection (DEP) and EPA discharge requirements are met. Maintaining and upgrading these water management facilities requires considerable funding that is not always readily available to DCNR.



Lift station at Moraine State Park



*Wastewater treatment plant at
Ricketts Glen State Park*

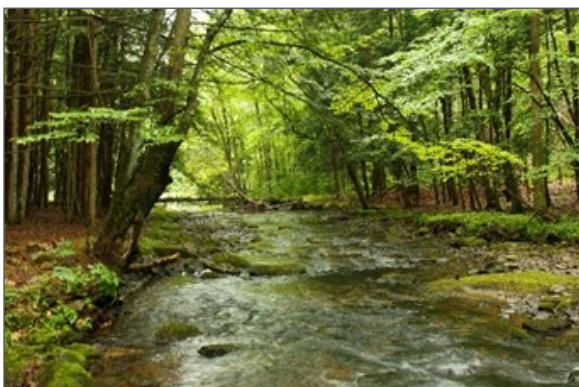
State parks and forests have 70 wastewater treatment plants, including several that service adjacent communities (Black Moshannon State Park for Rush Township, Denton Hill State Park for the Lumber Heritage Museum, Gifford Pinchot State Park for Wellsville Borough, Moraine State Park for Prospect Borough, Frances Slocum State Park for Dallas Area Municipal Authority, Bald Eagle State Park for Howard Borough and Liberty Township, Canoe Creek State Park for Frankstown Township, Hills Creek State Park for Charlestown Township, Nockamixon State Park for the Bucks County Vo-

Tech school, and Shawnee State Park for Schellsburg Borough). The typical treatment plant component parts last from 15 to 95 years. Because of growing public demand, flush toilets have

replaced most pit toilets throughout the system. With these upgraded sanitation facilities comes the added costs of water treatment, pipe and septic tank maintenance, and utility costs.

Pennsylvania state parks have 172 public water supplies. The typical water treatment facility component parts last from 15 to 95 years. Fresh drinking water is vital for park concession businesses, campgrounds, and water fountains. DEP developed new water regulations in 2009 that better address pathogens found in drinking water. Under these requirements, a number of park water treatment systems need to be upgraded to meet the improved standards.

DCNR estimates that it needs \$66 million (\$57 million for state parks and \$9 million for state forests) to maintain and upgrade its water and sewer infrastructure, which includes water and sewer conveyance and treatment facilities such as pump stations, treatment plants, pipelines, and in-takes. A stable, dedicated source of funding is needed to keep up with the repairs, upgrades, and regulatory changes to wastewater and drinking water standards that DCNR must abide by.



A classic clean Pennsylvania stream



OHIOPLYE ECO-MACHINE

The Eco-Machine wastewater treatment and recycling system at OhioPyle State Park in Fayette County is a series of indoor and outdoor treatment tanks and constructed wetlands used to remove waste and clean the water. The system is an integral part of an overall green site development plan for the new Falls Visitors Center which is seeking Leadership in Energy and Environmental Design (LEED) Gold certification. DCNR uses the Eco-Machine wastewater system to demonstrate how natural systems can be employed to easily and reliably clean the wastewater from the Falls Visitors Center to such a high quality that it can be recycled as toilet flushwater. This is a very efficient use of water, which helps to conserve supplies of drinking quality water.

In addition, the system helps the Falls Visitors Center satisfy the Water Efficiency Credit criteria of the LEED rating program and reduce the volume of the effluent that will be discharged to OhioPyle Borough's sewer. In fact, the system is designed to reduce the amount of waste heading out to the borough's sewage treatment plant from an average of 3,000 gallons per day to 900 gallons per day – an amazing reduction! According to park staff, the system works as developed and proposed most of the time; however, given the large number of visitors on weekends in the spring and fall, staff has to add some water to the system at those times because it doesn't recycle the wastewater fast enough.