

## Pennsylvania Department of Conservation and Natural Resources

The Pennsylvania Department of Conservation & Natural Resources (DCNR) conducts several conservation and partnership programs including, River Conservation Grants, managing the Invasive Species Program, and creating Aquatic Resource Management Plans.

The Nature Conservancy received funding from DCNR for two ongoing stream projects located on state land: Legacy Sediment, their Impacts and Opportunities for Restoration within State Parks; and Prioritizing Multifunctional Riparian Forest Buffer Placement in DCNR State Park Watersheds for Improving Water Quality. Through these projects, The Nature Conservancy will explore restoration approaches that reduce water quality impacts of legacy sediments, while also identifying areas where riparian corridor buffers can reduce nutrient and sediment inputs to lakes and streams. An internal team of DEP and DCNR staff has met several times with Nature Conservancy staff to prioritize the areas for restoration. The group will continue discussions and planning with Nature Conservancy to finalize sites and projects for implementation. DCNR has multiple state parks with lakes created by dams that could benefit from buffered receiving-stream waters as well as sediment reduction. These recommendations are due to DCNR by the end of 2018.

DCNR also oversees various community conservation partnership program grants. One category is [River Conservation Grants](#). These grants focus on enhancement and protection of Pennsylvania's waterways. Applications for these grants are submitted under several categories: Land Acquisition and Conservation Funding, which includes lands for the purpose of waterway conservation; Community Recreation and Conservation Planning Funding, which address water-related recreation or conservation needs; Park Rehabilitation and Development Funding, which include physical improvements that enhance water resources; State and Regional Partnerships Funding, which fund a variety of water-related projects; and Riparian Forest Buffer Funding, which aims at increasing trees, plants, and grass buffers along streams statewide.

In 2018 DCNR also released a \$1.1 million grant investment to eight recipients throughout Pennsylvania for planting trees and income-producing species along streams to help keep nutrients and sediments from the land from impacting water quality. The grants are administered through DCNR's Community Conservation Partnership Program with funding provided by PENNVEST. An additional two rounds of PENNVEST-funded grants will be offered.

DCNR also has an [Invasive Species Program](#). The Bureau of State Parks is actively suppressing nuisance and invasive aquatic vegetation in several state park waterbodies for recreational access and ecological purposes. A notable project area includes the federal noxious weed *Hydrilla*. This project area aims to understand the invasion's extent in state park waterbodies, educate boaters and the general public about their role in helping prevent its spread, and actively suppressing the plant in specific areas.

An [Aquatic Resource Management Plan](#) was recently created as a set of guidelines to help maintain forest rivers, streams, lakes, and ponds for stable living conditions of fish and wildlife.. The Plan addresses topics such as stream restoration and enhancement, lake and pond enhancement, shale gas water quality monitoring, aquatic habitat buffers, brook trout conservation, erosion and sediment control, and pipeline stream crossings. Stream crossings are currently being assessed using the North Atlantic Aquatic Connectivity Collaborative (NAACC) protocol.

About 50 percent of the known hydrilla in the lake at Pymatuning State Park was treated in summer 2018. **A launch stewardship program** was done for a third year, educating visitors about invasive species and demonstrating how to inspect equipment to remove any material that could be introduced to other areas. Invasive species disposal boxes near boat launches and efforts to make tools for clean, drain and dry practices more conveniently accessible are a part of this program to make these practices routine.

A project was completed in 2018 to reconnect Tom's Run in the Michaux State Forest in Cumberland County it's historic floodplain. The project included eliminating a diversion channel, fish enhancement, and wetland restoration.

DCNR is also working closely with the Department of Health (DOH) on some water-related work. All permitted inland beaches are regulated by the Department of Health under 25 Pa. Code Chapter 18, §18.28, Bathing beach contamination. Weekly testing for Escherichia coli density is required based on EPA 2012 Recreational Water Quality Criteria. These samples are used to determine closures of those beaches based on human health impact. Exceedance of thresholds and the geometric mean of samples are monitored for re-opening a beach. A closed beach is also inspected at the designated swimming area to observe for discharge of a possible pollutant. Water fowl control is encouraged and recommendations to reduce plant life to promote visibility to the bather are suggested.

The Beaches Environmental Assessment and Coastal Health Act (BEACH Act) was signed into law on October 10, 2000. This requires the Environmental Protection Agency (EPA) to develop criteria for testing and monitoring recreational water issues. Pennsylvania is one of the states covered by this Act.

BEACH Act funding is used to sample and analyze public, permitted bathing beach waters located along the Lake Erie shoreline in Pennsylvania and provide public notification of the results. Funding covers the cost of sample collection and analysis. Results are posted at each beach; on electronic sign boards on Presque Isle; on local websites; and on social media. A new interactive map allows the public to easily view the current status of beaches: open; advisory; or restriction. BEACH Act funds also contribute to the development and implementation of a predictive model that uses daily buoy data and other conditions to determine if a precautionary advisory should be issued for Presque Isle beaches.

### Fallbrook AMD Treatment Facility

A major water treatment facility was planned, and constructed at the Fallbrook old mine lands site in Tioga County on Tioga State Forest lands along Fallbrook Road. The \$2,500,000 project was completed in 2016 all with private money and is currently in operation on state forest land. Passive treatment of acid mine waters from the old Fallbrook mine complex on state forest lands had been in the planning stages since early 2000. However, no funding has been generally available for low priority water improvement projects, so DCNR took the lead and contacted known gas industry operators it has relationships with, that have established community funding mechanisms to address water and environmental issues as a way to put funds earned back to work in the local communities where the gas companies operate. One such company, Southwestern Energy, had ready funding available to specifically address water quality issues. In 2015 DCNR brought Southwestern in to meet the watershed association and DEP staff, wherein it was determined that the proposed Fallbrook project fit the company's funding profile well and the project moved forward rapidly. DCNR agreed to host the project to be constructed on Tioga State forest lands and provided technical support for the siting and design aspects. Southwestern provided a total of \$2,500,000 funding, which turned out to be the total amount needed to complete the project. DCNR provides ongoing inspection, grounds maintenance and staff oversight as needed for the facility.